

# OPERATIONAL ENVIRONMENTAL MANAGEMENT PLAN

**Building 3B  
Oakdale West Industrial Estate  
DA 21/0440**

**Prepared for:**

Goodman Property Services (Aust) Pty Ltd  
The Hayesbery  
1-11 Hayes Road  
Rosebery NSW 2018

SLR Ref: 630.30396.00500-R01  
Version No: -v1.0  
January 2023



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## BASIS OF REPORT

This report has been prepared by SLR Consulting Australia Pty Ltd (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Goodman Property Services (Aust) Pty Ltd (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.

## DOCUMENT CONTROL

Reference	Date	Prepared	Checked	Authorised
630.30396.00500	13 January 2023	Sam McDonald	Alanna Ryan	Alanna Ryan

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# 1 Introduction

## 1.1 Development Overview

Goodman Property Services (Aust) Pty Ltd (Goodman) obtained a State Significant Development Consent (SSD) 7348 on 13 September 2019 for the 'Concept Plan' and 'Stage 1 Development' of Oakdale West Industrial Estate (Oakdale West), a warehousing and a distribution hub at 2 Aldington Road, Kemps Creek in Western Sydney Employment Area.

The Concept Plan is a 'Master Plan' to guide the staged development of Oakdale West and core development controls that will form the basis for design and assessment of future development applications for the site (see **Figure 1**). The Stage 1 Development includes estate-wide earthworks, infrastructure, and services and the construction and operation of warehouses in Precinct 1 (Building 1A, 1B and 1C) (see **Figure 2**). SSD 7348 has been modified on eleven occasions, with the eleventh modification approved by the Department of Planning and Environment (DPE) on December 16<sup>th</sup> 2022.

Goodman obtained Development Consent DA 21/0440 from Penrith City Council (Council), on the 22 November 2021. This Development Consent approved the construction and use of Building 3B (2 tenancies) as a warehouse and distribution centre. DA 21/0440 was modified (Mod22/0041) on 22 March 2022 for the amendment to the approved car park driveway and cross-over location.

A copy of Development Consent DA 21/0440 is attached as **Appendix A**.

For the purposes of this document, the development is described in:

- *Oakdale West Industrial Estate – Warehouse 3B, 2 Addlington Road, Kemps Creek – Statement of Environmental Effects (SEE) (Keylan, 2020) including all specialist assessments and other appendices;*
- *Environmental Impact Statement, Oakdale West Estate – State Significant Development Application (EIS) prepared by Urbis (2017), including all specialist assessments and other appendices;*
- *Oakdale West Industrial Estate (SSD 7348) Modification 1 prepared by Urbis (2019), including all specialist assessments and other appendices;*
- *Oakdale West Estate SSD 7348, Section 4.55(1A) Modification No. 2 – Environmental Assessment Report prepared by Goodman (2020), including all specialist assessments and other appendices;*
- *Oakdale West Industrial Estate Concept Plan and Stage 1 Modification (MOD 3 SSD 7348) and Stage 2 Development Application (SSD 10397) – Environmental Impact Statement prepared by GHD (2020), including all specialist assessments and other appendices;*
- *Oakdale West Estate SSD 7348, Section 4.55(1A) Modification No. 4 – Environmental Assessment Report prepared by Goodman (2020a), including all specialist assessments and other appendices;*
- *Oakdale West Estate SSD 7348, Section 4.55(1A) Modification No. 5 – Environmental Assessment Report prepared by Urbis (2020), including all specialist assessments and other appendices;*
- *Assessment Report Section 4.55 (1A) Modification, SSD 7348 Modification 6 – 2 Aldington Road, Kemps Creek prepared by Keylan Consulting (2020), including all specialist assessments and other appendices;*
- *Assessment Report Section 4.55 (1A) Modification, SSD 7348 Modification 7 – 2 Aldington Road, Kemps Creek prepared by Keylan Consulting (2021), including all specialist assessments and other appendices;*

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- *Assessment Report Section 4.55 (1A) Modification, SSD 7348 Modification 8 – 2 Aldington Road, Kemps Creek prepared by Goodman (2021), including all specialist assessments and other appendices;*
  - *Assessment Report Section 4.55 (1A) Modification, SSD 7348 Modification 9 – 2 Aldington Road, Kemps Creek prepared by Keylan Consulting (2021), including all specialist assessments and other appendices;*
  - *Assessment Report Section 4.55 (1A) Modification, SSD 7348 Modification 10 – 2 Aldington Road, Kemps Creek prepared by Goodman (2022), including all specialist assessments and other appendices; and*
  - *Assessment Report Section 4.55 (1A) Modification, SSD 7348 Modification 11 – 2 Aldington Road, Kemps Creek prepared by Goodman (2022), including all specialist assessments and other appendices.*

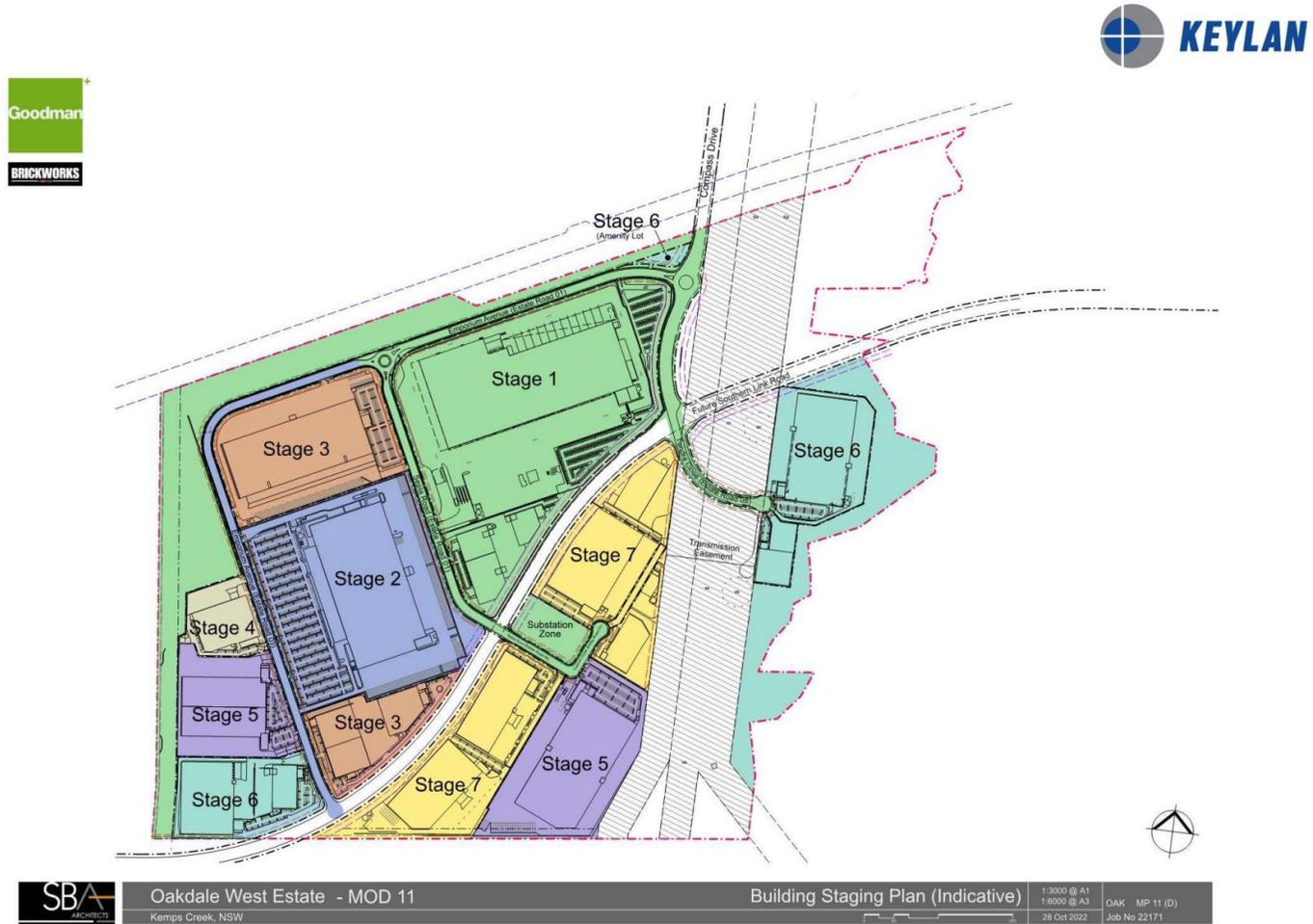


Figure 1 Oakdale West Site Layout

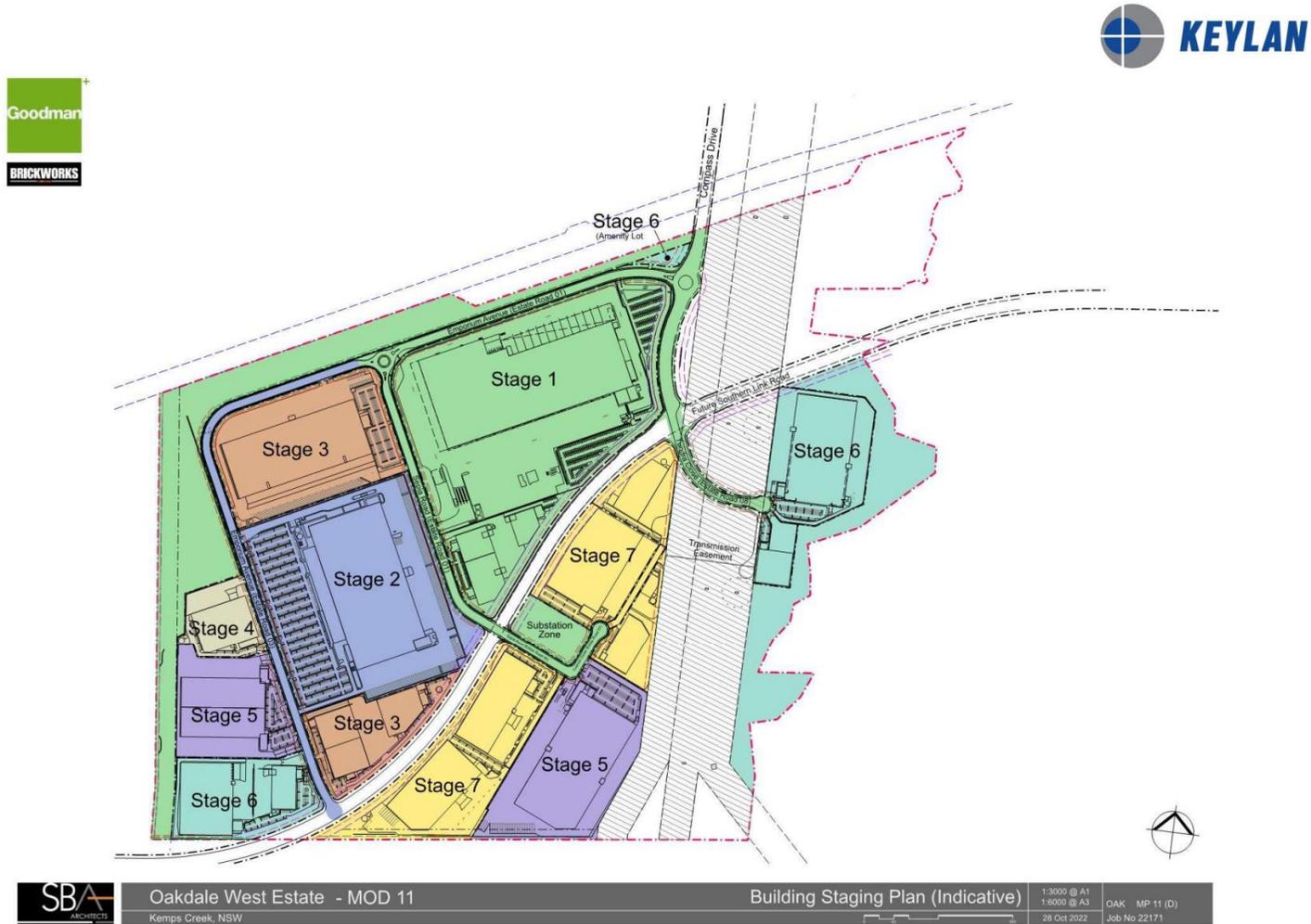


Figure 2 Oakdale West Staging Plan

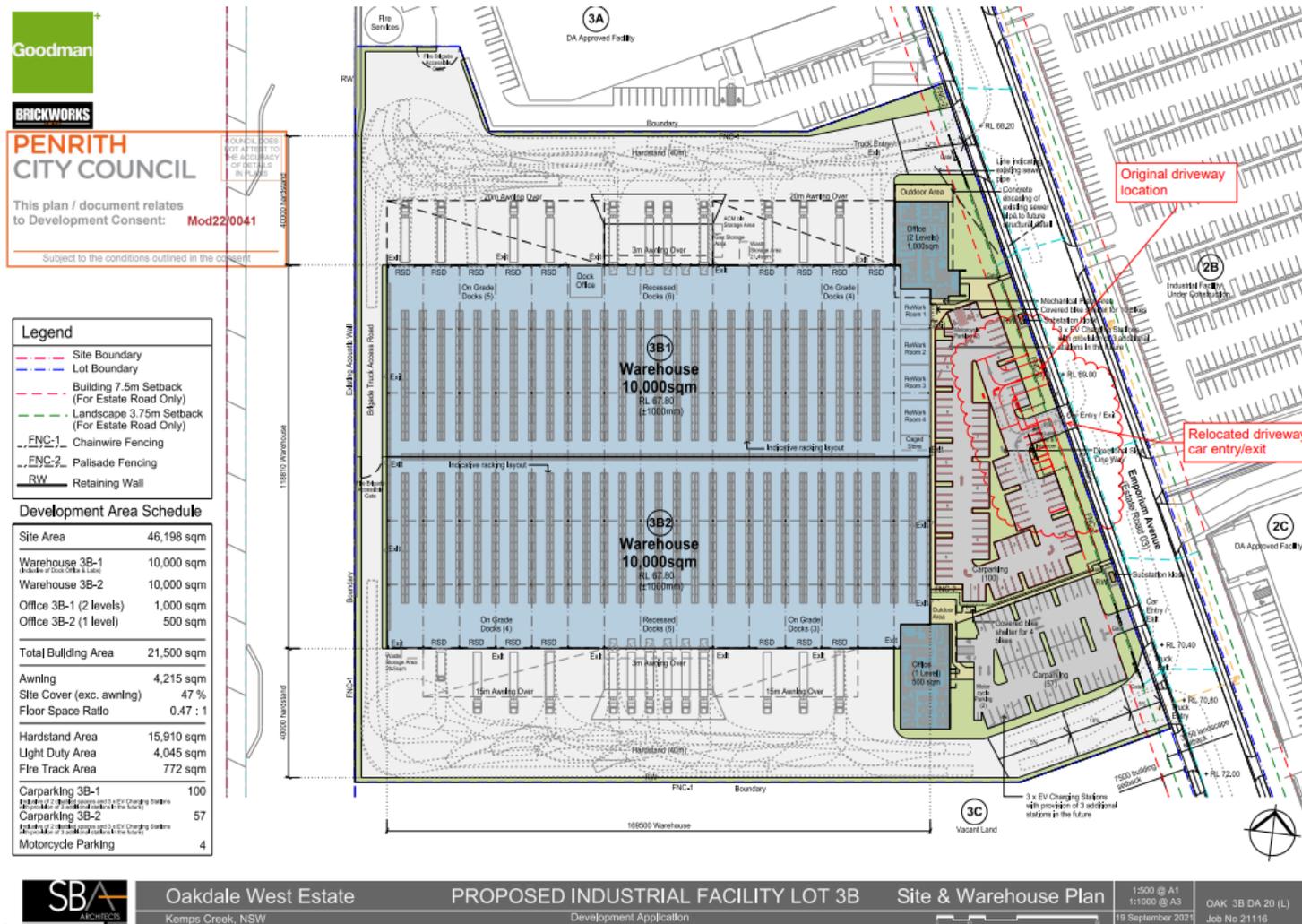


Figure 3 Building 3B

## 1.2 OEMP Context

This Operational Environmental Management Plan (OEMP) has been prepared to address the scope and objectives listed below for the operation of Building 3B (see **Figure 3**), and in consideration of *Guideline for the Preparation of Environmental Management Plans* (Department of Infrastructure, Planning and Natural Resources 2004).

Reference should also be made to the *Oakdale West Industrial Estate OEMP* (SLR 2022) which details management requirements applicable to all developments within the Estate.

This OEMP contains the following key components:

- Environmental management framework, including key contacts, roles and responsibilities, and regulatory requirements;
- Environmental incidents and non-compliance management strategy;
- Complaints management strategy;
- Environmental management commitments and responsibilities;
- Monitoring, inspections and reporting requirements; and
- Inclusion of specialist management plans and protocols, listed below:
  - Operational Traffic Management Plan (OTMP);
  - Community Communication Strategy (CCS);
  - Salinity Management Plan;
  - Waste Management Plan (WMP);
  - Flora and Fauna Management Plan (FFMP);
  - OWE Vegetation Management Plan (VMP);
  - OWE Landscape Management Plan (LMP); and
  - Sustainability Management Plan (SMP).

### 1.2.1 Scope

This OEMP has been prepared to satisfy Conditions D118 and D130-132 of SSD 7348 and the relevant conditions of Development Consent DA21/0440 in relation to Building 3B. The specific requirements of these consent conditions addressed within this OEMP are listed in, along with where these requirements have been addressed within this document, are listed in **Table 1**.

It is noted that the OEMP requirements under Schedule D Conditions D118 and D130-132 of SSD 7348 are specific to the Stage 1 Development are generally not applicable to this Plan. Notwithstanding this, appropriate sub-plans have been prepared to ensure a consistent and robust approach to the management of operational environmental impacts across Oakdale West.

**Table 1 OEMP Scope - SSD 7348**

Condition	Section
D118. Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:	
a) details of: <ul style="list-style-type: none"> <li>i. the relevant statutory requirements (including any relevant approval, licence or lease conditions);</li> <li>ii. any relevant limits or performance measures and criteria; and</li> <li>iii. the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, Stage 1 or any management measures;</li> </ul>	<ul style="list-style-type: none"> <li>i. Section 3.3</li> <li>ii. Section 4</li> <li>iii. OWE OEMP specialist management plans</li> </ul>
b) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;	Section 4
c) a program to monitor and report on the: <ul style="list-style-type: none"> <li>i. impacts and environmental performance of Stage 1; and</li> <li>ii. effectiveness of the management measures set out pursuant to paragraph (b) above;</li> </ul>	<ul style="list-style-type: none"> <li>i. Section 5</li> <li>ii. Section 7</li> </ul>
d) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;	Section 6
e) a program to investigate and implement ways to improve the environmental performance of Stage 1 over time;	Section 7
f) a protocol for managing and reporting any: <ul style="list-style-type: none"> <li>i. incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria);</li> <li>ii. complaint;</li> <li>iii. failure to comply with statutory requirements; and</li> </ul>	<ul style="list-style-type: none"> <li>i. Section 3.5</li> <li>ii. Section 3.6</li> <li>iii. Section 3.5</li> </ul>
g) a protocol for periodic review of the plan.	Section 7
D130. The Applicant must prepare an Operational Environmental Management Plan (OEMP) in accordance with the requirements of Condition D118 and to the satisfaction of the Planning Secretary.	This Plan
D131. As part of the OEMP required under Condition D130 of this consent, the Applicant must include the following:	
a) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of operation of Stage 1;	Section 3.2
b) describe the procedures that would be implemented to: <ul style="list-style-type: none"> <li>i. keep the local community and relevant agencies informed about the operation and environmental performance of Stage 1;</li> <li>ii. receive, handle, respond to, and record complaints;</li> <li>iii. resolve any disputes that may arise;</li> <li>iv. respond to any non-compliance;</li> <li>v. respond to emergencies; and</li> </ul>	<ul style="list-style-type: none"> <li>i. Section 5</li> <li>ii. Section 3.6</li> <li>iii. Section 3.6</li> <li>iv. Section 3.5</li> <li>v. Section 3.5</li> </ul>
c) include the following environmental management plans: <ul style="list-style-type: none"> <li>i. Landscape Management Plan (LMP) (see Condition D35);</li> <li>ii. Flora and Fauna Management Plan (FFMP) (see Condition D88);</li> <li>iii. Waste Management Plan (WMP) (see Condition D112); and</li> <li>iv. Operational Traffic Management Plan (OTMP) (see Condition D69A).</li> </ul>	<p>Note these are OWE OEMP Management Plans</p> <ul style="list-style-type: none"> <li>i. Section 4.8 (App L)</li> <li>ii. Section 4.7 (App J)</li> <li>iii. Section 4.6 (App I)</li> <li>iv. Section 4.4 (App E)</li> </ul>

Condition	Section
D132. The Applicant must: a) not commence operation until the OEMP is approved by the Planning Secretary; and b) operate Stage 1 in accordance with the OEMP approved by the Planning Secretary (and as revised and approved by the Planning Secretary from time to time).	a) Noted b) OWE OEMP

### 1.2.2 Objectives

The objectives of this OEMP are to guide and assist Goodman and the Tenants in ensuring:

- The Building 3B Operational Environmental Management requirements under SSD Consent 7348 are undertaken and adhered to in line with the relevant consent conditions;
- Establish the framework for managing and mitigating the potential for adverse environmental impacts as a result of the operation of Building 3B;
- Clearly and concisely document the commitments made in the relevant assessment reports (as listed in **Section 1.1**), including relevant management plans, that are required to be implemented during operation;
- Demonstrate to DPE how the applicant proposes to meet all of its regulatory obligations including those outlined in the Conditions of consent;
- Clearly and concisely document the conditions imposed by DA 21/0440 and SSD 7348 that are required to be implemented and/or complied with during operation; and
- Assist to establish Building 3B in a manner that avoids (where possible) or minimises impact to the surrounding environment and populace.

It is noted that this OEMP does not address workplace health and safety (WHS) requirements. These are managed in accordance with Goodman's Current Work, Health & Safety Policy.

### 1.2.3 Preparation

This OEMP has been prepared by SLR Consulting (Australia) Pty Ltd (SLR). SLR provides global environmental and advisory solutions from a network of offices in Asia-Pacific, Europe, North America and Africa. Author qualifications are listed in **Table 2** below:

**Table 2 Author Qualifications**

Name, Role & Division	Qualifications	Experience
<b>Alanna Ryan</b> Principal Consultant Environmental Assessment & Management	BEnvSc Grad Cert Community Engagement	Alanna is a Principal Environmental Consultant with over 15 years experience in industry. Experience Alanna has included Environmental Management systems (including risk assessment/management, strategies, management plans, inspections, and auditing) and statutory reporting.  Since joining SLR, Alanna has been involved in the project management and writing of Construction Environmental Management Plans and Environmental Management Plans.

Name, Role & Division	Qualifications	Experience
<b>Sam McDonald</b> Senior Project Consultant Environmental Assessment & Management	BEnvSc	Sam is a Senior Project Consultant with the Environmental Assessment & Management team and has over four years of experience as a project consultant with SLR. Sam graduated with a Bachelor of Environmental Science (majoring in Environmental Sustainability) from the University of Newcastle in 2015. Sam has experience in project management, report writing and auditing. Project experience includes mining, quarrying, infrastructure and intensive agriculture. Sam also has experience in mine closure, environmental impact assessments, environmental management programs, environmental management strategies, management plans, compliance, environmental risk assessments.

### 1.2.4 Consultation

In accordance with SSD 7348, consultation has been undertaken with the applicable stakeholders which is summarised in **Table 3**, and documentation attached at **Appendix D**.

**Table 3 Consultation**

Condition	Comment
<b>SSD 7348</b>	
<b>Notification of Commencement</b> D8. The date of commencement of each of the following phases of Stage 1 must be notified to the Department in writing, at least one month before that date, or otherwise agreed with the Planning Secretary: construction; and operation.	Noted – The Applicant has notified the Department of the commencement of this stage of development as per Condition D8.
<b>Notification of Commencement</b> D9. If the construction or operation of Stage 1 is to be delivered in sub-stages, the Department must be notified in writing at least one month before the commencement of each sub-stage, of the date of commencement and the works to be carried out in that sub-stage.	Noted – The Applicant has notified the Department of the commencement of this stage of development as per Condition D9.
<b>Operational Traffic Management Plan</b> D69A. The Applicant must prepare an Operational Traffic Management Plan (OTMP) for Stage 1. The OTMP must form part of the OEMP required by condition D130 and must: (a) be prepared by a suitably qualified and experienced expert, in consultation with Council and TfNSW; ...	<b>Council</b> In accordance with Condition D69A (a) of Development Consent SSD 7348, a copy of the Operational Traffic Management Plan (OTMP) was emailed to Penrith City Council (Council) for review and feedback. Council responded on the 17 August 2021 advising that the OTMP had been reviewed and required minor revisions. The OTMP has since been revised and is included in Appendix E. <b>Transport for New South Wales</b>

Condition	Comment
	<p>In accordance with Condition D69A (a) of Development Consent SSD 7348, a copy of the OTMP was emailed to Transport for New South Wales (TfNSW) on 16 July 2021 for review and feedback. TfNSW responded on 5 August 2021 advising that the OTMP had been reviewed and TfNSW required it to be revised. The OTMP has since been revised and is included as Appendix E.</p>

## 2 Operation Overview

### 2.1 Location

Oakdale West is legally described as Lot 101 to 103 in DP 1262308 and Lot 105 to 111 DP 1262310, at the far south-western extent of the Western Sydney Employment Area (WSEA) within the Penrith Local Government Area (LGA).

Oakdale West is bound to the north by the Water NSW Pipeline and to the east by the Ropes Creek riparian corridor. Land along the eastern boundary of the site is also affected by a transmission easement associated with Transgrid infrastructure. To the east of the site is Goodman's Oakdale South Estate. Emmaus Catholic College and Emmaus Retirement Village is located to the west of the site. Other boundaries interface with adjoining rural lands used for a mix of rural-residential and agricultural.

As shown in **Figure 2**, Building 3B is within Precinct 5, in the south-western corner of Oakdale West.

### 2.2 Operational Activities

In accordance with the approved Development Consent DA 21/0440, the site will operate as a warehouse and distribution centre.

### 2.3 Hours of Operation

The hours of operation are Monday to Sunday, 24 hours a day.

### 2.4 Site Access

All access to the Estate is provided via Compass Drive. Vehicles will travel along Old Wallgrove Road from the M4 or Lenore Drive, before heading south on Compass Drive and onto the internal estate roads.

### 2.5 Contact Details

The Goodman Representative will be responsible for all environmental management at Building 3B. Contact details are outlined in **Table 4**.

**Table 4** Contact Details

Role	Name	Contact Details
<b>Building 3B</b>		
Goodman's Representative	Michael Trotnar – Senior Building Manager	0409 999 447 Michael.Trotnar@goodman.com
3B1 Telstra's Representative	Hugh Mitchell – National Project Manager	0400 657 873 hugh.mitchell@team.telstra.com
3B2 Kazoo's Representative	Phillip Steward	0414 014 213 phillip.steward@kazoo.com.au

## **2.6 Relevant Companies**

### **2.6.1 Tenant**

Building 3B has two tenancies which each include one warehouse and one office. The tenants are responsible for the management of built infrastructure and landscaping within the boundaries of their tenancy.

### **2.6.2 Goodman**

In general, Goodman is responsible for the Estate's private infrastructure and overall management of the common vegetated areas of which there are a number of key components including Defendable Zones, Bio-retention Basins, landscaped setbacks, Riparian Corridors and development lots including the Amenity Lot.

Goodman is only responsible for the site management of the assets it owns within Oakdale West Estate. It is to be noted that Goodman are not responsible for dedicated roads or the Zone Substation within the Estate once the respective assets ownership is transferred to the relevant utility or authority.

### **2.6.3 Penrith City Council**

Penrith City Council is responsible for the road network within Oakdale West, as well as the streetscape planting in the verges within the road reserves.

## 3 Environmental Management Framework

### 3.1 Goodman Corporate Responsibility and Sustainability Policy

Goodman maintains a *Corporate Responsibility and Sustainability Policy* (CRSP) (GMG 2018) with the primary purpose to:

- Communicate Goodman’s commitment to sustainable operating principles endorsed by the Goodman Boards;
- Establish a sustainability mandate which supports the long-term commitment to Goodman’s integrated business model;
- Support the adoption of sustainable design principles and innovations within Goodman’s development specifications;
- Establish an ongoing commitment to engage with our investors, capital partners, customers, the community and industry peers on issues relating to sustainability; and
- Create a directive to engage with our supply chain to support Goodman in achieving innovative and sustainable outcomes.

Goodman have incorporated the CRSP into the design and construction of the Oakdale West Estate and will continue to be implement it throughout operations as relevant to their ongoing responsibilities.

### 3.2 Roles and Responsibilities

The key personnel responsible for environmental management at Oakdale West are listed in **Table 5**.

**Table 5 Personnel Responsible for Environmental Management**

Site	Company and Role	Responsibilities
Oakdale West Estate Infrastructure (Council Owned Roads)	Penrith City Council (Council)	<ul style="list-style-type: none"> <li>• Ensure the dedicated internal Oakdale West Estate Road network is managed in accordance with the requirements noted under the SSD Consent.</li> </ul>
Oakdale West Estate Infrastructure (Excluding Council Owned Roads)	Goodman’s Representative (Goodman Rep)	<ul style="list-style-type: none"> <li>• Ensure the consultant/contractor is made aware of and understand their obligations under the OEMP.</li> </ul>
Sites / Warehouses	Goodman’s Representative (Goodman Rep)	<ul style="list-style-type: none"> <li>• Ensure the Tenant Representatives are made aware of their obligations of the OEMP (as relevant to their respective site) and that management measures are appropriately implemented and maintained; and</li> <li>• Advise and assist the tenant in the implementation of the OEMP, as required.</li> </ul>
Sites / Warehouses	Tenant Representatives (Tenant Rep)	<ul style="list-style-type: none"> <li>• Ensure that the obligations of this OEMP are implemented and communicated to all relevant parties; and</li> <li>• Implement the Complaints and Incident Handling Procedures, as required.</li> </ul>

Site	Company and Role	Responsibilities
Sites / Warehouses	Tenants/employees/ contractors (T/E/C)	<ul style="list-style-type: none"> <li>• Ensure familiarity, implementation and compliance with this OEMP and appended management plans;</li> <li>• Support the company’s commitment to environmental management and compliance;</li> <li>• Work in a manner that will not harm the environment or impact on surrounding receptors;</li> <li>• Report all environmental incidents and complaints to the Goodman’s Representative without delay; and</li> <li>• Report any inappropriate operational and/or environmental management practices to the Goodman’s Representative without delay.</li> </ul>

### 3.3 Statutory Requirements

#### 3.3.1 DA 21/0440

The consent conditions applicable to the operation of Building 3B are listed in **Appendix B**. (N.B. The administrative conditions and conditions relating to the construction phase have not been included in **Appendix B**, only those conditions specific to site operation have been included).

The operation of 3B shall be carried out in accordance with DA 21/0440 and also in accordance with the documents referenced under Condition 1 of the Consent:

- The stamped approved by Council, the application form and any supporting information received with the application, except as may be amended in red on the attached plans;
- Requirement to Update Air Quality Impact Assessment, prepared by SLR and dated 15 June, 2021;
- Bushfire Risk Assessment, prepared by Blackash Bushfire Consulting and dated 14 June, 2021;
- BCA Assessment Report, prepared by Blackett Maguire and Goldsmith and dated 31 May, 2021;
- Fire Safety Strategy, prepared by Core Engineering Group and dated 18 June, 2021;
- Noise and Vibration Assessment, prepared by Wilkinson Murray and dated 18 June, 2021;
- Sustainability Management Plan, prepared by SLR and dated 8 September, 2021;
- Transport Assessment, prepared by Ason Group and dated, 18 June, 2021;
- Waste Management Plan, prepared by SLR and dated 15 June, 2021; and
- Lot 3B Civil Report, prepared by AT&L and dated 31 May, 2021.

In accordance with Condition 9 of DA 21/0440, relevant conditions within SSD-7348 Oakdale West Approval (as modified) shall be complied with at all times. These have been included as **Appendix C**.

#### 3.3.2 SSD 7348

In accordance with Condition B6 and D4 of the SSD 7348 consent, if there is any inconsistency between the plans and documentation referred to in Condition B5, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of SSD 7348 and directions of the Planning Secretary prevail to the extent of any inconsistency.

The consent conditions for SSD 7348 (as modified) applicable to the operation of Building 3B are listed in **Appendix C**. (N.B. The administrative conditions and conditions relating to the construction phase have not been included in **Appendix C**, only those conditions specific to site operation have been included).

The Concept Proposal shall be carried out in accordance with SSD 7348 (as modified) and also in accordance with the documents referenced under Condition B5 of the Consent:

- EIS and RTS;
- the plans in Appendix 1 and Appendix 2;
- SSD 7348 MOD 1;
- the Applicant’s Management and Mitigation Measures in Appendix 7; and
- modifications to this consent.

In accordance with Condition B6 and D4 of the SSD 7348 consent, if there is any inconsistency between the plans and documentation referred to in Condition B5, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of SSD 7348 and directions of the Planning Secretary prevail to the extent of any inconsistency.

### 3.3.3 Other licences, permits, approvals and consents

In accordance with Condition B4 of the SSD 7348 consent, all licences, permits, approvals and consents as required by law must be obtained and maintained as required for the development. No condition of this consent removes any obligation to obtain, renew or comply with such licences, permits, approvals and consents.

We note all endeavours will be made to obtain the relevant permit’s/licences etc, however we are reliant on the Tenants Representative to provide the information within a timeframe reasonably requested by Goodman’s Representative.

All licences, permits, and approvals/consents required for the tenant’s specific operational purposes will be obtained and maintained by the Tenants Representative as required post lease approval.

Additional licences, permits, approvals and consents required throughout operation as described in SSD 7348 and DA 21/0440 Consent Conditions, including the documents listed above in **Section 3.3.1** and **3.3.2** are summarised in **Table 6**.

**Table 6 Other licences, permits, approvals and consents**

Licence, permit, approval or consent	Person Responsible	Timing	References / Notes
An Occupation Certificate must be issued prior to the development being used.	Goodman	Before the commencement of operation	DA 21/0440 Condition 2
No trees are to be removed, ringbarked, cut, topped or lopped or wilfully destroyed (other than those within the proposed building footprint or as shown on the approved plans) without the prior consent of Penrith City Council and in accordance	Goodman, Tenant Representative	As required	DA 21/0440 Condition 56

Licence, permit, approval or consent	Person Responsible	Timing	References / Notes
with State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017.			
All licences, permits, approvals and consents as required by law must be obtained and maintained as required for the development.	Goodman	As required	SSD 7348 Condition B4

### 3.4 Environmental Training

Prior to the commencement of operation, the Tenant Representatives will ensure their Operations Management Framework includes a detailed Training Plan to clearly address the training requirements outlined in the OEMP and appended management plans. The Tenant Representatives will provide a copy of this Training Plan to Goodman.

Environmental training responsibilities are summarised in **Table 7** and minimum topics to be covered for environmental training are summarised in **Section 3.4.1** and **Section 3.4.2**.

A register of all environmental training carried out, including dates, names of persons trained, and trainer name and qualification details will be established and maintained for the duration of operation.

**Table 7 Training Responsibilities**

Person Responsible	Reference / Notes
Goodman Representative	Ensure all Tenant’s Representatives and maintenance contractors engaged by Goodman are appropriately inducted and aware of their general obligations under this OEMP.
3B1 and 3B2 Tenant Representatives	- Ensure all other employees and contractors are appropriately inducted and aware of their obligations under the OEMP. - To conduct regular “toolbox talks” to ensure continuing awareness of environmental management expectations and responsibilities as applicable to their operations.

#### 3.4.1 Environmental Induction Training

The environmental induction training will cover all elements of the OEMP and will include, as a minimum, the following:

**Table 8 Environmental Induction Training**

Inductions and Environmental Training	Reference / Notes
Purpose and objectives of the OEMP	Section 1.2
Obligation to minimise harm to the environment	Section 1.2.1
Hours of operation	Section 2.3
Goodman’s Responsibility and Sustainability Policy	Section 3.1
Conditions of any environmental licences, permits and consent approvals	Section 3.3
Appropriate response and management of environmental incidents (for example, a chemical spill) in accordance with the incidents protocol.	Section 3.5

Inductions and Environmental Training	Reference / Notes
Appropriate response and management of complaints received from the public, government agencies or other stakeholders in accordance with the complaints protocol.	Section 3.6
General site maintenance and management expectations and requirements	Section 4
Familiarisation with site environmental controls	Section 4
The environmental management commitments and responsibilities in this OEMP (including appended management plans);	Sections 4 and 5

### 3.4.2 Toolbox Talks

Toolbox talks or similar will be held to identify environmental issues and controls when works commence in a new area of the site or a new activity, as well as when environmental issues arise on site. The toolbox talk will include but not be limited to:

- A description of the activity and the area;
- Identification of the environmental issues and risks for the area; and
- Outline the mitigations measures for the works and the area (see **Section 5**).

## 3.5 Incident and Non-Compliance Response and Handling Procedure

### 3.5.1 Performance Objective

To ensure that any incident and/or non-compliance caused by or relating to site operation is effectively responded to, reported accordingly, and any resulting adverse environment and/or human health impact is promptly prevented or effectively managed.

### 3.5.2 Definitions

For the purposes of this OEMP, an ‘incident’ as an occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance. A ‘non-compliance’ is described as an occurrence, set of circumstances or development that is a breach of the consent.

Material Harm is defined within SSD 7348 as harm that:

*(a) involves actual or potential harm to the health or safety of human beings or to the environment that is not trivial, or*

*(b) results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000, (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment)*

There is the possibility of minor environmental incidents occurring as part of this project. SLR have defined a ‘Minor Environmental Incident’ as an incident where there has been no potential or actual material harm to the environment (see ‘material harm’ definition above).

Minor environmental incidents will still be handled under the process outlined in **Figure 4** except there will be no requirement for government notification. All minor or major incidents will be recorded in the Incident Register. A minor incident does not constitute a non-compliance with the Development Consent.

### 3.5.3 Responsibility

The Tenant’s Representatives are responsible for ensuring that the appropriate management response and handling procedures are instigated and carried through in the event of an incident and/or non-compliance. All employees, contractors and subcontractors are to:

- Notify the Tenant’s Representative who will notify the Goodman Representative of any hazard or potential hazard that may result in an incident and/or non-compliance, regardless of the nature or scale; and
- Take immediate action (where it is safe to do so) to prevent, stop, contain and/or minimise any adverse impact associated with an incident and/or non-compliance.

The induction and toolbox talks outlined in **Section 3.4** will be used to ensure all site employees, contractors and subcontractors are aware of and understand their obligations for incident and/or non-compliance response.

### 3.5.4 Register

Records of all incidents and non-compliances will be maintained in Goodman’s incident register system. Details of all incidents and complaints will be retained for at least five years after the event to which they relate.

### 3.5.5 Notification Requirements

In the instance of an incident or non-compliance, the notification protocols outlined in **Table 9** shall be adhered to.

**Table 9 Material Harm Incident and Non-Compliance Notification**

Notification Requirement	Responsible	Timeframe
<b>Incidents</b>		
Upon awareness of an incident, the Tenant’s Representative shall be notified of and provided with all relevant information pertaining to the potential or actual incident.	Any person engaged as an employee or undertaking an activity with regard to the operation of Building 3B	Immediately after becoming aware of a potential or actual incident
The Tenant’s Representative will notify Goodman’s Representative of any incident including all relevant information pertaining to the incident.	Tenant Rep	Immediately after becoming aware of a potential or actual incident
The Goodman’s Representative will notify DPE of an incident in writing via the Major Projects Website.	Goodman’s Rep	Immediately
An Event Notification Report will be completed and provided to Goodman. This is attached to this OEMP as <b>Appendix F</b> .	Tenant Rep	Within 24 hours
Goodman’s Representative will provide a formal written notification of an incident to DPE via the Major Projects Website.	Goodman Rep	Within 7 days after becoming aware of incident
Tenant’s Representative will provide a written incident report to Goodman Representative.	Tenant Rep	Within 25 calendar days after becoming aware of incident

Notification Requirement	Responsible	Timeframe
Goodman’s Representative will provide DPE and any relevant public authorities a detailed report on the incident.	Goodman Rep	Within 30 days of the incident occurring or as otherwise agreed to by the Planning Secretary
<b>Non-Compliance</b>		
Provide written notification of the non-compliance to the Major Projects website.	Goodman Rep	Within 7 days after becoming aware of non-compliance

Under the *Protection of the Environment Operations Act 1997* (POEO), “*relevant authority*” means any of the following:

- The appropriate regulatory authority – the Environment Protection Authority (EPA);
- If the EPA is not the appropriate regulatory authority – the local authority for the area in which the pollution incident occurs (i.e. Council);
- NSW Public Health Unit;
- SafeWork NSW;
- Fire and Rescue NSW; and
- Water NSW (if the event has an effect on the Water NSW pipeline corridor).

**Table 10** lists the contact details for these authorities. The person reporting the pollution incident will provide the following key details:

- Location of the pollution incident/emergency;
- Nature of the pollution incident/emergency;
- Their name and contact details; and
- Details of any required assistance.

**Table 10 Regulatory Authority Contact List**

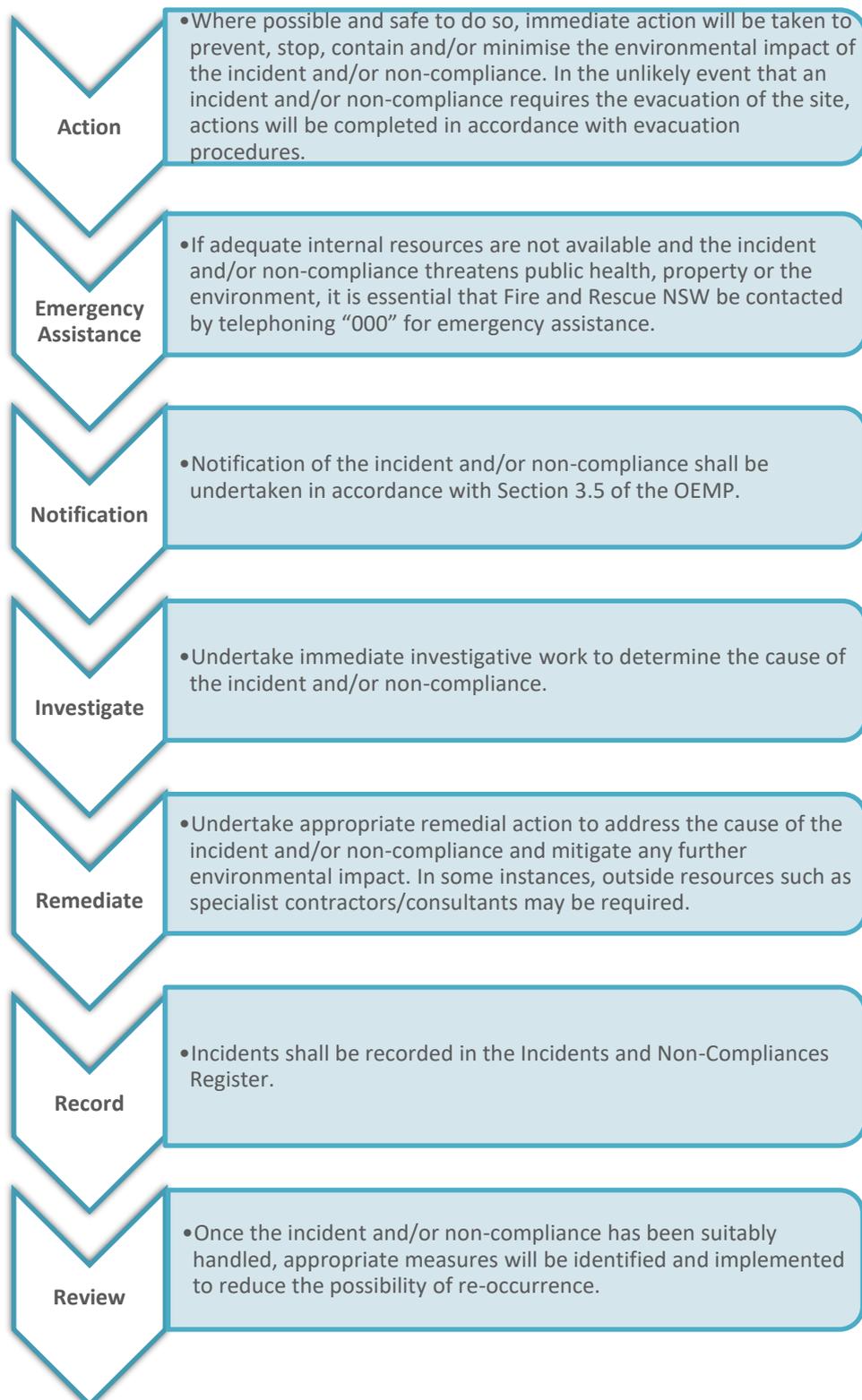
Regulatory Authority / Stakeholder	Key Contact	Contact Details
<b>Department of Planning and Environment (DPE)</b>	Compliance Unit	1300 305 695 or 02 9228 6111 compliance@planning.nsw.gov.au
<b>Environment Protection Authority (EPA)</b>	Environment Line	131 555 info@environment.nsw.gov.au
	Head office (Sydney)	02 9995 5000
<b>Environment, Energy and Science (EES) Group</b>	Main switchboard	1300 361 967 info@environment.nsw.gov.au
<b>Penrith City Council</b>	Main switchboard	02 4732 777 council@penrith.city

Regulatory Authority / Stakeholder	Key Contact	Contact Details	
<b>Water NSW</b>	Main switchboard	1300 662 077 Customer.Helpdesk@waternsw.com.au	
	Incident Notification Number – 24 hours	1800 061 069	
<b>NSW Public Health Unit</b>	Sydney Local Health District	Business hours: 1300 066 055 After hours: 02 9515 6111	
<b>SafeWork NSW</b>	Incident Notification Hotline	131 050 Select Option 3 to report a “Serious Incident or Fatality” – this will result in the incident being recorded and the appropriate person being contacted.	
<b>Emergency Services</b>	NSW Police NSW Fire and Rescue NSW Ambulance Service	131 444 1300 729 579 -	In case of emergency – 000

### 3.5.5.1 Non-Compliance Notification

A non-compliance notification will identify the development and the application number for it, set out the condition of consent that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.

A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.



**Figure 4 Incidents and Non-Compliance Handling Procedure**

## 3.6 Complaints Response and Handling Procedure

All complaints will be handled in accordance with the *Community Communication Strategy (CCS)* (SLR, 2022a) (see **Appendix G**).

All employees who take receipt of a complaint, either verbal or written, are to take note of the name and contact details of the complainant and the nature of the complaint and immediately notify the Tenant's Representative, who will then contact Goodman's Representative to commence proceedings.

The complaints handling procedure shown in **Figure 5** is duplicated from the CCS for quick reference. For further detail please consult the CCS.

### 3.6.1 Community Enquiries

Relevant contact details, including a phone number for community enquiries, will be included on site signage or are available on Goodman's website ([oakdaleopportunities.com](http://oakdaleopportunities.com)). All community enquiries should be forwarded to Goodman's Representative (**Section 2.5**).

### 3.6.2 Dispute Resolution

In the event that a dispute arises between Goodman or the Tenant and a public authority, in relation to an applicable requirement in this consent or relevant matter relating to the operation of Building 3B, either party may refer the matter to the Planning Secretary for resolution. The Planning Secretary's determination of any such dispute will be final and binding on the parties.

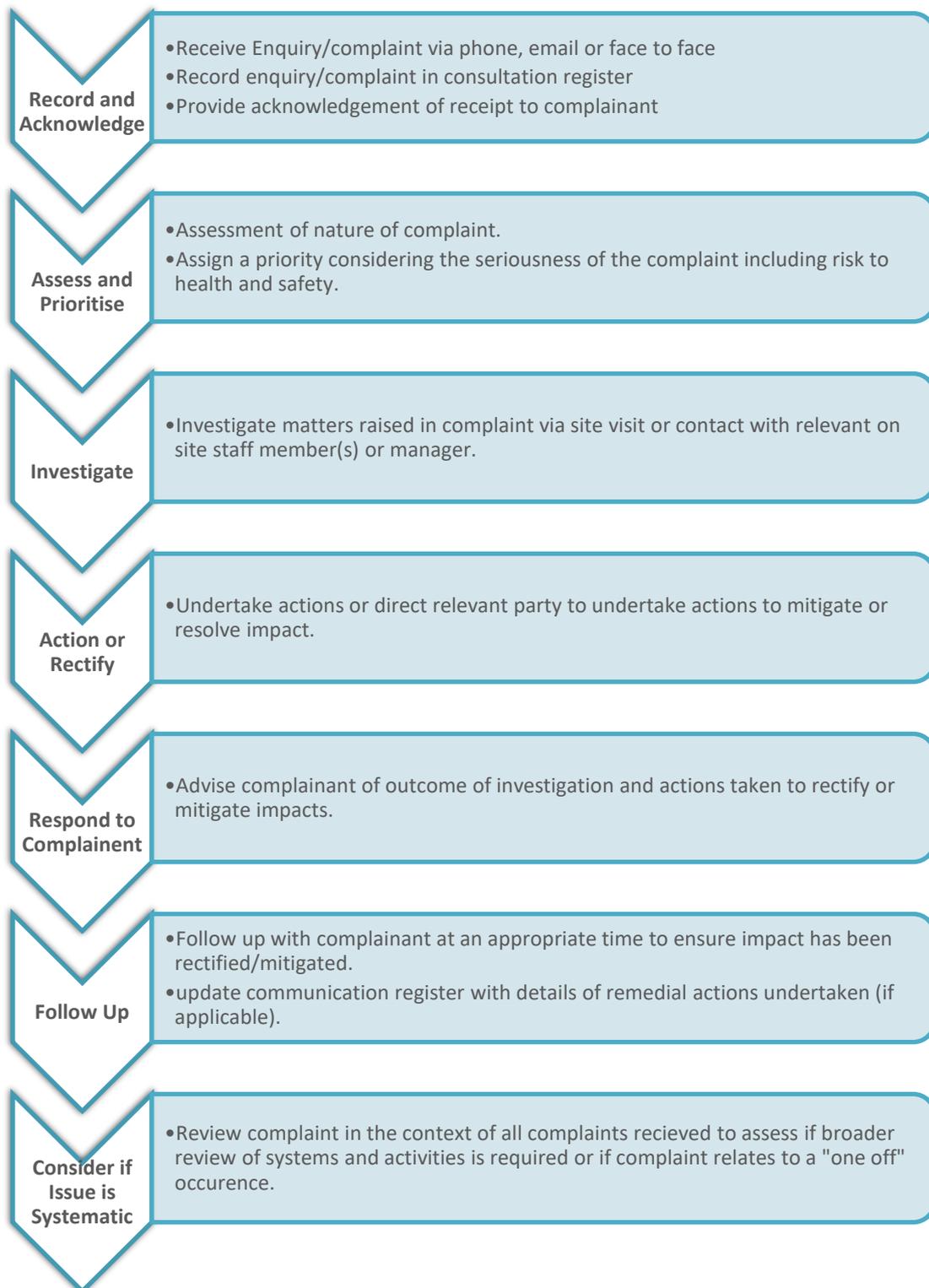
In the case of a dispute between the Proponent and a community member/complainant, either party may refer the matter to the DPE and/or relevant regulatory authority for consideration, advice and/or negotiation.

Additional information can be located in the CCS (SLR 2022a) attached as **Appendix G**.

### 3.6.3 Complaints Register

A Complaints Register will be maintained for the duration of operations and will contain the following:

- A copy of the environmental complaint handling procedure contained in **Section 3.6**;
- A separate reference sheet containing the contact details listed in **Table 4**;
- Blank hard copies of the Community Correspondence Register, and
- Copies of all completed Community Correspondence Register, which are to be maintained for at least five years after the event to which they relate.



**Figure 5 Complaints Handling Procedure**

## 4 Environmental Management Commitments

Environmental aspects with the potential to be impacted by Building 3B are addressed in the following sub-sections. These issues have specific regulatory requirements and/or are considered to have the highest potential to result in a non-compliance with a legislative requirement or generate community complaints.

### 4.1 General

**Table 11** lists the general environmental controls that will be implemented throughout the life of the development to minimise the potential for adverse impacts on the local environmental and surrounding receptors.

**Table 11 General Environmental Management Controls**

Environmental Management Control	Person Responsible	Timing / Frequency	References / Notes
Building 3B will operate in accordance with the reasonable requirements of TransGrid relating to their use of TransGrid Easement.	Tenant Rep	Ongoing	SSD 7348 Condition C13
All plant and equipment will be maintained and operated in a proper and efficient manner.	Council T/E/C	Ongoing	SSD 7348 Condition D21

### 4.2 Noise

The environmental management controls in **Table 12** will be implemented to minimise the potential for adverse noise emissions from the operation.

**Table 12 Environmental Management Controls for Noise**

Environmental Management Control	Person Responsible	Timing / Frequency	References / Notes
Noise levels from the premises (including all associated plant and equipment) shall not exceed the relevant noise criteria detailed in the 'Noise & Vibration Assessment (RWDI # 2102730D)' prepared by Wilkinson Murray and dated 9 August 2021. The recommendations provided in the Noise and Vibration assessment report shall be implemented and incorporated into the design, construction and operation of the development. The provisions of the POEO apply to the development, in terms of regulating offensive noise.	Tenant Rep	Ongoing	DA 21/0440 Condition 20
The rainwater tank pump must not exceed 5dBA above ambient background noise level at the nearest residential property boundary. The provisions of the POEO apply to the development, in terms of regulating offensive noise	Goodman Rep	Ongoing	DA 21/0440 Condition 33
Rooftop mechanical plant and forklifts will not be operated during the night-time period	Tenant Rep T/E/C	Ongoing	SSD 7348 Condition B9

Environmental Management Control	Person Responsible	Timing / Frequency	References / Notes
Operational noise will be managed in accordance with the operational noise limits within SSD7348.	Tenant Rep, T/E/C	Ongoing	SSD 7348 Condition B18 and B19
Where practicable, all roller doors will be kept closed during the night-time period.	Tenant Rep T/E/C	Ongoing	Best Practice
Outdoor fixed plant installed as part of the Base Building will be enclosed where possible.	Goodman Rep	Ongoing	Best Practice
Outdoor fixed plant installed post Practical Completion will be enclosed where possible.	Tenant Rep	Ongoing	Best Practice

### 4.3 Air Quality

Air quality impacts associated with the operational phase of Building 3B are anticipated to be negligible, with the main source of emissions likely to be exhaust emissions from heavy vehicles idling on-site. There is potential for wheel-generated dust from vehicles entering and exiting the site, however the local public road network and internal roads are all sealed.

The environmental controls in **Table 13** will be implemented to further minimise the potential for adverse air quality impacts associated with operational activities at Building 3B.

**Table 13 Environmental Management Controls for Air Quality**

Environmental Management Control	Person Responsible	Timing / Frequency	References / Notes
All reasonable steps will be taken to minimise dust generated during all works authorised by this consent.	Tenant Rep	Ongoing	SSD 7348 Condition D98
Operation will not cause or permit the emission of any offensive odour, as defined in the POEO Act.	Tenant Rep T/E/C	Ongoing	SSD 7348 Condition D102
All vehicles and mobile plant will be switched off (i.e. not left idling) when not in use for an extended period of time.	Tenant Rep T/E/C	Ongoing	Best practice

### 4.4 Traffic

Operational traffic at Building 3B will be managed in accordance with the Operational Traffic Management Plan (OTMP) prepared by Ason (2022) for Oakdale West Estate and attached as **Appendix E**.

The environmental management controls in **Table 14** will be implemented to further minimise the potential for adverse impact associated with operational traffic at Building 3B.

**Table 14 Environmental Management Controls for Traffic**

Environmental Management Control	Person Responsible	Timing / Frequency	References / Notes
The required sight lines around the driveway entrances and exits shall not be compromised by street trees, landscaping or fencing.	Tenant Rep	Ongoing	DA 21/0440 Condition 48
All vehicles are to enter/exit the site in a forward direction	Tenant Rep T/E/C	Ongoing	DA 21/0440 Condition 50
All traffic will use the Western North South Link Road (Compass Drive), and the future Southern Link Road, to access the site and will not use Bakers Lane or Aldington Road.	Tenant Rep	Ongoing	SSD 7348 Condition B9(g)
Internal roads, driveways and parking will be maintained in accordance with the latest version of AS 2890.1:2004 and AS 2890.2:2002.	Council	Ongoing	SSD 7348 Condition D69(a)
Parking for cars and bikes will be provided in accordance with the SEE.	Council	Ongoing	SSD 7348 Condition D69(b) SEE Section 6.4
The swept path of the longest vehicle entering and exiting the site, as well as manoeuvrability through the site, will be in accordance with the relevant Austroads guidelines.	Council	Ongoing	SSD 7348 Condition D69(c)
Vehicles will not queue on the public road network.	Tenant Rep	Ongoing	SSD 7348 Condition D69(d) OTMP
Heavy vehicles over 4.5 tonne will not park on local roads or footpaths.	Tenant Rep	Ongoing	SSD 7348 Condition D69(e) OTMP
All vehicles will be wholly contained on site before stopping.	Tenant Rep	Ongoing	SSD 7348 Condition D69(f) OTMP
All loading and unloading of materials will be carried out on Site.	Tenant Rep	Ongoing	SSD 7348 Condition D69(g) OTMP
All trucks entering or leaving the Site will have their loads covered and will not track dirt onto the public road network.	Tenant Rep	Ongoing	SSD 7348 Condition D69(h)
The turning areas in the car parks will be kept clear of any obstacles, including parked cars, at all times.	Tenant Rep	Ongoing	SSD 7348 Condition D69(i)

## 4.5 Soil and Water

The environmental controls in **Table 15** will be implemented to ensure the effective management of soil and water at Building 3B in accordance with the conditions implemented by Development Consent SSD 7348 and DA 21/0440.

**Table 15 Environmental Management Controls for Soil and Water**

Environmental Management Control	Person Responsible	Timing / Frequency	References / Notes
Mud and soil from vehicular movements to and from the site must not be deposited on the road.	Tenant Rep T/E/C	Ongoing	DA21/0440 Condition 13
The stormwater management system shall continue to be operated and maintained in perpetuity for the life of the development in accordance with the final operation and maintenance management plan.	Goodman Rep	Ongoing	DA21/0440 Condition 46
Regular inspection records are required to be maintained and made available to Penrith City Council on request. All necessary improvements are required to be made immediately upon awareness of any deficiencies in the stormwater management systems.	Goodman Rep, Tenant Rep	Ongoing	DA21/0440 Condition 46
Erosion and sediment control measures shall be installed prior to the commencement of works on site and be maintained in accordance with the approved erosion and sediment control plan(s) for the development and the Department of Housing's "Managing Urban Stormwater: Soils and Construction" 2004.	Goodman Rep, Tenant Rep	Ongoing	DA21/0440 Condition 14
Operation will comply with section 120 of the POEO Act, which prohibits the pollution of waters.	Tenant Rep T/E/C	Ongoing	SSD 7348 Condition D82
The stormwater management system will be operated in accordance with Conditions D83-D84.	Goodman Rep	Ongoing	SSD 7348 Condition D83 & Condition D84
Water storage basins and stormwater infrastructure owned and managed by Goodman will be managed in accordance with the manufacturer's specifications.	Goodman Rep	Ongoing	Best practice
Consideration will be given to other possible rainwater reuse opportunities such as for truck washing.	Goodman Rep	Ongoing	SSD 7348 Appendix 7
Roads, footpath and hardstand surfaces will be graded, and the grades maintained at all times to prevent ponding of surface water at locations where this can result in infiltration into the underlying soils (e.g. pavement joints).	Goodman Rep	Ongoing	Salinity Management Plan Section 5.4 and Section 5.5 (See Appendix H of this OEMP).
Connections between the roads, footpath and hardstand surfaces and the surface water and stormwater drainage infrastructure will be designed, constructed and maintained to restrict infiltration into underlying soils.	Goodman Rep	Ongoing	
Stormwater and surface water will be managed to restrict infiltration.	Goodman Rep	Ongoing	
Guttering and down pipes will be connected and maintained.	Goodman Rep		

Environmental Management Control	Person Responsible	Timing / Frequency	References / Notes
Offsite discharges shall be managed in strict accordance with relevant erosion and sediment control plans.	Tenant Rep	Ongoing	FFMP Section 5

## 4.6 Waste

As required by Condition D112 of SSD 7348 and Condition 1 of DA 21/0440, the Waste Management Plan (WMP) (SLR 2021) prepared as part of the Response to Submissions and updated to be relevant to the operation of Building 3B. A copy of the WMP is attached as **Appendix I**.

The environmental management controls in **Table 16** will be implemented to minimise the potential for adverse waste impacts from the operation of Building 3B.

**Table 16 Environmental Management Controls for Waste**

Environmental Management Control	Person Responsible	Timing / Frequency	References / Notes
Waste will be secured and maintained within designated waste storage areas at all times and will not leave the site onto neighbouring public or private properties.	Tenant Rep T/E/C	Ongoing	SSD 7348 Condition D111
The WMP will be implemented for the duration of operation.	Tenant Rep	Ongoing	SSD 7348 Condition D112
All liquid and non-liquid wastes to be taken off site will be assessed and classified in accordance with the latest version of the <i>Waste Classification Guidelines Part 1: Classifying Waste</i> (EPA 2014) and dispose of all wastes to a facility that may lawfully accept the waste.	Tenant Rep	Ongoing	SSD 7348 Condition D113
Waste generated outside the site will not be received for storage, treatment, processing, reprocessing, or disposal.	Tenant Rep T/E/C	Ongoing	SSD 7348 Condition D114
All listed mitigation and management measures outlined in the WMP will be implemented throughout operation. These mitigation measures cover the following activities: <ul style="list-style-type: none"> <li>• Targets for Resource Recovery;</li> <li>• Waste Streams and Classifications;</li> <li>• Estimated Quantities of Operational Waste;</li> <li>• Waste Storage Area Size;</li> <li>• Waste Storage Room Location;</li> <li>• Waste Storage Area Features;</li> <li>• Waste Servicing;</li> <li>• Waste Avoidance, Reuse and Recycling Measures; and</li> <li>• Communication Strategies.</li> </ul>	Goodman Rep, Tenant Rep	Ongoing	WMP Section 6

## 4.7 Biodiversity

The Flora and Fauna Management Plan (FFMP) (Ecologique 2022) and the Vegetation Management Plan (VMP) (Ecologique 2019) have been prepared for operation and are attached as **Appendix J** and **Appendix K** respectively.

**Table 17** outlines the mitigation measures to be implemented during operation to manage any impacts to biodiversity.

**Table 17 Environmental Management Controls for Biodiversity**

Environmental Management Control	Person Responsible	Timing / Frequency	References / Notes
All listed mitigation and management measures outlined in the FFMP will be implemented throughout operation. These mitigation measures cover the following activities: <ul style="list-style-type: none"> <li>Wildlife Protection;</li> <li>Erosion and Sediment Control;</li> <li>Weed, Pest Species and Pathogen Management; and</li> <li>Stop Work Procedure.</li> </ul>	Goodman Rep, Tenant Rep	Ongoing	FFMP Section 5 and 6
All listed mitigation and management measures outlined in the VMP will be implemented throughout operation. These mitigation measures cover the following activities: <ul style="list-style-type: none"> <li>Weed Control;</li> <li>Soil Amelioration;</li> <li>Mulching; and</li> <li>Planting.</li> </ul>	Goodman Rep, Tenant Rep	Ongoing	VMP Section 4

## 4.8 Visual Amenity

The visual amenity and landscaping at Building 3B will be maintained in accordance with the Landscape Management Plan (LMP) (Scape Design 2022) and contained in **Appendix L**.

The environmental controls in **Table 18** will be implemented to minimise the visual impact of the development.

**Table 18 Environmental Management Controls for Visual Amenity**

Environmental Management Control	Person Responsible	Timing / Frequency	References / Notes
All materials and goods associated with the use shall be contained within the building at all times.	Tenant Rep	Ongoing	DA 21/0440 Condition 4
The finishes of the building are to be maintained at all times and any graffiti or vandalism immediately removed/repared.	Tenant Rep	Ongoing	DA 21/0440 Condition 6
The parking directory signage shall be located entirely within the proposed lot boundaries.	Goodman Rep, Tenant Rep	Ongoing	DA 21/0440 Condition 10

Environmental Management Control	Person Responsible	Timing / Frequency	References / Notes
The installation of the approved signage shall be carried out strictly in accordance with the manufacturer's specifications. Any wiring or installation fixtures associated with the signage or internal illumination shall be contained wholly within the body of the signage and not be visible from the public domain.	Goodman Rep, Tenant Rep	Ongoing	DA 21/0440 Condition 11
No highlight colours, including the 'Goodman Green', should be used where they will be visible from sensitive receivers along the western elevation and no approval is granted to the installation of the Goodman signage visible from the sensitive receivers.	Goodman Rep, Tenant Rep	Ongoing	DA 21/0440 Condition 13
The catchment area (for the rainwater tank) includes the parts of the roof of the dwelling(s) from which water is collected and includes gutters. To ensure a safe supply of water: roof catchment areas must be kept clear of overhanging vegetation.	Goodman Rep/ Tenant Rep	Ongoing	DA 21/0440 Condition 31
Landscaping shall be maintained: <ul style="list-style-type: none"> <li>in accordance with the approved plan; and</li> <li>in a healthy state, and in perpetuity by the existing or future owners and occupiers of the property.</li> </ul> If any of the vegetation comprising that landscaping dies or is removed, it is to be replaced with vegetation of the same species and, to the greatest extent practicable, the same maturity as the vegetation which died or was removed.	Goodman Rep/ Tenant Rep	Ongoing	DA 21/0440 Condition 51
All landscape works are to meet industry best practice and the following relevant Australian Standards: <ul style="list-style-type: none"> <li>AS 4419 Soils for Landscaping and Garden Use;</li> <li>AS 4454 Composts, Soil Conditioners and Mulches; and</li> <li>AS 4373 Pruning of Amenity Trees.</li> </ul>	Goodman Rep/ Tenant Rep	Ongoing	DA 21/0440 Condition 55
Outdoor lighting will comply with AS/NZS 1158.3.1:2005 Pedestrian Area (Category P) Lighting and AS/NZS 4282:2019 Control of Obtrusive Effects of Outdoor Lighting.	Goodman Rep Tenant Rep	Ongoing	SSD 7348 Condition C6
Illuminated signage will be oriented away from the sensitive receivers on the western and southern Site boundaries.	Goodman Rep Tenant Rep	Ongoing	SSD 7348 Condition C7
Lighting will comply with the latest version of AS 4282.	Goodman Rep Tenant Rep	Ongoing	SSD 7348 Condition D40
Lighting will be mounted, screened and directed in such a manner that it does not create a nuisance to surrounding properties or the public road network.	Goodman Rep	Ongoing	
Any security cameras will be directed away from adjacent private properties.	Goodman Rep	Ongoing	SSD 7348 Condition D41

Environmental Management Control	Person Responsible	Timing / Frequency	References / Notes
<p>All listed management measures outlined in the LMP will be implemented throughout operation. These management measures focus on the implementation of maintenance works including:</p> <ul style="list-style-type: none"> <li>Plant care;</li> <li>Fertilising;</li> <li>Spraying; and</li> <li>Erosion control.               <ul style="list-style-type: none"> <li>The LMP also includes a Contingency Plan (also replicated in Section 6 of this OEMP).</li> </ul> </li> </ul>	Goodman Rep, Tenant Rep	Ongoing	LMP Section 5 and 6
<p>Recharge of groundwater and potential for water logging will be minimised by:</p> <ul style="list-style-type: none"> <li>Adopting 'waterwise' gardening principles; and</li> <li>Minimising use of potable water in landscaped areas.</li> </ul>	Goodman Rep	Ongoing	Best practice

## 4.9 Hazardous Goods and Contamination

**Table 19** lists the management strategies for hazardous goods and contamination as contained in SSD 7348 and DA 21/0440.

**Table 19 Environmental Management Controls for Hazardous Goods and Contamination**

Environmental Management Control	Person Responsible	Timing / Frequency	References / Notes
The rainwater tank must be maintained so as not to create a nuisance and it must be protected against mosquito infestation.	Goodman	Ongoing	DA21/0440 Condition 24
Chemicals, fuels and oils will be stored in bunded areas in accordance with relevant Australian Standards and/or the <i>Storing and Handling of Liquids: Environmental Protection – Participants Manual</i> (Department of Environment and Climate Change 2007).	Tenant Rep	Ongoing	SSD 7348 Condition D110
Spill kits will be provided and maintained on site.	Tenant Rep	Ongoing	Best practice
The actions specified on the relevant safety data sheets (SDS) will be implemented in the event of a minor spill/incident of a potentially hazardous material.	Tenant Rep	Ongoing	Best practice
In the event of a major spill, the Incident response actions in Section 3.5 will be implemented.	Tenant Rep	Ongoing	Section 3.5

## 4.10 Fire Safety and Emergency

**Table 20** lists the management strategies for fire safety and emergency as contained in SSD 7348 and DA 21/0440.

**Table 20 Environmental Management Controls Fire Safety and Emergency**

Environmental Management Control	Person Responsible	Timing / Frequency	References / Notes
It is the owner's responsibility to place on display, in a prominent position within the building at all times, a copy of the latest fire safety schedule and fire safety certificate/statement for the building.	Tenant Rep	Ongoing	DA 21/0440 Condition 23
The NSW Rural Fire Service Planning for Bushfire Protection 2019 guide will be implemented where relevant to operation.	Goodman Rep Tenant Rep	Ongoing	SSD 7348 Condition B20, C12 and D97
Asset Protection Zones will be maintained to mitigate potential bushfire risk to buildings as outlined in Section 6 of the Bushfire Protection Assessment (ABPP 2016).	Goodman Rep Tenant Rep	Ongoing	SSD 7348 Condition B20, C12 and D97
Safe and unobstructed access will be provided for TransGrid plant and personnel to access the transmission towers, lines and easement on the Site, 24 hours a day, 7 days a week.	Goodman Rep	Ongoing	SSD 7348 Condition B21 Condition D30
All staff will comply with the requirements of TransGrid for any works in the TransGrid easement.	Goodman Rep, Tenant Rep T/E/C	Ongoing	SSD 7348 Condition B21 Condition D30
TransGrid will be advised of any proposed amended or modified encroachment into the easement.	Goodman Rep, T/E/C	Ongoing	SSD 7348 Condition B21 Condition D30
<b>Occupant Evacuation and Control (Sub-System E)</b> The building is to be provided with the following systems to assist in the evacuation of occupants: Emergency management plan.			Fire Safety Strategy, prepared by Core Engineering Group and dated 18 June, 2021

## 4.11 Community

**Table 21** lists the management strategies for community communication as contained in SSD 7348 and the Community Communication Strategy (CCS) (SLR 2022a) for Oakdale West, which applies to this development, is attached as **Appendix G**.

**Table 21 Environmental Management Controls for Community Communication**

Environmental Management Control	Person Responsible	Timing / Frequency	References / Notes
<p>All strategies outlined in the CCS will be implemented throughout operation. These include:</p> <ul style="list-style-type: none"> <li>• Communication, Management and Mitigation Tools;</li> <li>• Complaints Procedure; and</li> <li>• Contingency Management Plan (also replicated in Section 6 of this OEMP).</li> </ul>	Goodman Rep, Tenant Rep	Ongoing	CCS Section 5

## 4.12 Sustainability

**Table 22** lists the management strategies for Sustainability as contained in SSD 7348 and the Sustainability Management Plan (SMP) (SLR 2022) for Oakdale West, which applies to this development, is attached as **Appendix M**.

**Table 22 Environmental Management Controls for Sustainability**

Environmental Management Control	Person Responsible	Timing / Frequency	References / Notes
<p>Objectives, targets and strategies will be implemented and managed for the following categories in accordance with Table 3 of the SMP 'ESD Assessment Summary':</p> <ul style="list-style-type: none"> <li>• Design and Management</li> <li>• Façade Performance</li> <li>• Social Sustainability</li> <li>• Minimising Transport</li> <li>• Optimising Indoor Environmental Quality (IEQ)</li> <li>• Minimising Energy Use</li> <li>• Choosing Materials</li> <li>• Minimising Waste</li> <li>• Water Conservation and Reuse</li> <li>• Land Use and Ecology Impact</li> </ul>	Goodman Rep Tenant Rep	Ongoing	SMP Section 5.1
<p>The car parking area for warehouse 3B shall have a minimum of three car parking spaces connected to an Electric Vehicle Charging Station (EVCS) and a minimum of four other car parking spaces shall be designed to be readily retrofitted to connect to an EVCS.</p>	Goodman Rep	Ongoing	DA 21/0440 Condition 47
<p>The parking area for warehouse 3B2 car park shall have a minimum of two parking spaces connected to an EVCS and a minimum of three other car parking spaces shall be designed to be readily retrofitted to connect to an EVCS.</p>	Goodman Rep	Ongoing	DA 21/0440
<p>The installed EVCS car parking spaces are to be signposted and marked for the use of electric vehicles only and are to be located as close as possible to the building. EVCS shall be free of charge to staff and visitors.</p>	Goodman Rep, Tenant Rep	Ongoing	DA 21/0440

## 5 Monitoring, Reporting and Auditing

**Table 23** summarises the monitoring requirements for the operation of Building 3B as set out in SSD 7348, DA 21/0440 and relevant management plans.

Prior to the commencement of operation, the Tenant Representative will ensure their Operations Management Framework includes a detailed Monitoring and Reporting Matrix to clearly document the specific applicable forms, registers or reports that will be used (i.e. Weekly Environmental Inspection Checklist, Complaints Register etc). The Tenant Representative will provide a copy of this matrix to Goodman.

- The Tenant Representative will ensure the checklists included in the Operations Management Framework, including the Daily Observations Checklist and Weekly Environmental Checklist, address all relevant monitoring and reporting commitments outlined in the OEMP and appended management plans.

**Table 23 Monitoring and Inspections Requirements**

Aspect	Monitoring / Inspection Requirement	Person Responsible	Timing / Frequency	References / Notes
<b>Daily</b>				
General	The Daily Observations Checklist will be completed as part of a general environmental site inspection for the relevant environmental controls in the OEMP and specialist management plans requiring daily monitoring. Any required maintenance, process improvements or staff training identified will be undertaken to comply with OEMP commitments.	Tenant Rep	Daily	Best practice
<b>Weekly</b>				
General	The Weekly Environmental Checklist will be completed as part of a general environmental site inspection to ensure all relevant environmental controls listed in this OEMP and specialist management plans are in place. Any required maintenance, process improvements or staff training identified will be undertaken to comply with OEMP commitments.	Tenant Rep	Weekly	Best practice
General	The Tenant Representative will report environmental performance during regular management meetings and/or 'toolbox talks'. Items to be discussed include: <ul style="list-style-type: none"> <li>Any environmental incidents that have occurred during the previous period, including the management / corrective actions taken;</li> <li>Any complaints that have been received during the previous period, including any management / corrective actions taken.</li> <li>Any required maintenance, process improvements or staff training identified in order to comply with OEMP commitments.</li> </ul>	Tenant Rep	Weekly	Section 3.4

Aspect	Monitoring / Inspection Requirement	Person Responsible	Timing / Frequency	References / Notes
<b>Monthly</b>				
Sustainability	The building tuning will be provided by service contractors and overseen by an independent assessor, at least once a month within the Defects Liability Period (DLP) to ensure that services are operating effectively and efficiently. Monthly reports will be provided to the tenant for DLP.	Tenant Rep	Monthly	Sustainability MP Section 7
<b>Half-yearly</b>				
Waste	Visual assessments of bins and bin storage areas will be conducted to ensure waste is being managed to the standards outlined in the WMP.	Tenant Rep	Half-yearly	WMP Section 6.11
Waste	A waste audit will be conducted according to the WMP to ensure its provisions are being maintained.	Tenant Rep	Half-yearly	WMP Section 6.11
Sustainability	An energy audit and management review will be undertaken in accordance with the Sustainability Management Plan	Tenant Rep	Half-yearly	Sustainability MP Section 7.1
<b>Annual</b>				
General	This OEMP and all specialist management plans will be reviewed in accordance with Section 7 of this OEMP	Tenant Rep / Goodman Rep	Annually	OEMP Section 7
General	Compliance monitoring and reporting will be undertaken in accordance with the Compliance Monitoring and Reporting Program (SLR 2019).	Goodman Rep	Annually	SSD 7348 Condition D139
General	Compliance Reports of the Development will be carried out in accordance with the Compliance Reporting Post Approval Requirements (DPE 2018).	Goodman Rep	Annually	SSD 7348 Condition D140
General	Each Compliance Report will be made publicly available no later than 60 days after submitting it to the DPE and notify the DPE in writing at least 7 days before this is done.	Goodman Rep	Annually	SSD 7348 Condition D141
Sustainability	The Energy Management Plan should be progressively improved and updated on an annual basis, or as required, to reflect changes to the Energy Management System and to promote continual improvement of energy management at the Project Site.	Tenant Rep / Goodman Rep	Annually	Sustainability MP Section 7.1
<b>Event Based</b>				
Incident / Non-Compliance	In the event of an Incident or Non-Compliance, follow the process outlined in Section 3.5 of the OEMP.	Tenant Rep / Goodman Rep	In the event of an Incident or Non-Compliance	OEMP Section 3.5

Aspect	Monitoring / Inspection Requirement	Person Responsible	Timing / Frequency	References / Notes
Noise	A noise verification report will be prepared in accordance with Condition D75B of SSD 7348.	Goodman Rep	Within 3 months of commencing operation	SSD 7348 Condition D75B
Waste	Visual assessments of bins and bin storage areas will be conducted to ensure the waste management system is sufficient for the operation	Tenant Rep	Weekly in the first two months of operation	WMP Section 6.11
Landscaping	A final inspection will be undertaken prior to the completion of the Plant Establishment Maintenance Period (PEMP) (Defects Liability Period).	Goodman Rep	Prior to the completion of the PEMP.	LMP Section 5.4
Sustainability	All committed sustainability related measures need to be commissioned and tuned once the project is completed, to ensure all services operate to their full potential as designed.	Goodman Rep	Once the project is completed	Sustainability MP Section 7
<b>Other</b>				
General	All monitoring will be undertaken in accordance with Division 9.4 of Part 9 of the EP&A Act.	Goodman Rep	Ongoing	SSD 7348 D142
Traffic	Traffic reporting and monitoring will be conducted in accordance with Section 7.1 of the OTMP.	Tenant Rep	Ongoing	OTMP Section 7.1
Waste	Waste reporting and monitoring will be conducted in accordance with Section 6.11 of the WMP.	Tenant Rep	Ongoing	WMP Section 6.11
Biodiversity	Biodiversity reporting and monitoring will be conducted in accordance with Section 5 of the FFMP.	Tenant Rep	Ongoing	FFMP Section 5
Biodiversity	Site audits, monitoring and reporting on the progress and achievement of the VMP performance targets shall be undertaken by the Site Superintendent or other representative nominated by Goodman.	Goodman Rep	Ongoing	VMP Section 4.7
Landscaping	Monitoring, maintenance, irrigation and pruning will be undertaken in accordance with Section 6 of the LMP	Goodman Rep	Ongoing	LMP Section 6
Landscaping	A final monitoring report shall be prepared and provide a summary of all works undertaken during the plant establishment period.	Goodman Rep	Prior to handover, minimum of 18 months after the completion of works	LMP Section 5.4
Community	The performance of the Community Communication Strategy will be monitored in accordance with the CCS.	Goodman Rep	Ongoing	CCS Section 6

Aspect	Monitoring / Inspection Requirement	Person Responsible	Timing / Frequency	References / Notes
Sustainability	An energy usage review should be undertaken within the first few months of operation to ensure the Energy Management Plan is sufficient for the development's needs.	Goodman Rep	First few months of operation	SMP Section 7.1
General	Compliance monitoring and reporting will be undertaken in accordance with the Compliance Monitoring and Reporting Program (SLR 2019).	Goodman Rep	As required	SSD 7348 Condition D139
General	Compliance Reports of the Development will be carried out in accordance with the Compliance Reporting Post Approval Requirements (DPE 2018).	Goodman Rep	As set out in the DPE guidelines	SSD 7348 Condition D140
General	Regular reporting on environmental performance will be uploaded on the dedicated website as per the reporting arrangements in any plans or programs approved under the conditions of SSD 7348.	Goodman Rep	Ongoing	SSD 7348 Condition D143

## 6 Contingency Management Plan

**Table 24** lists the actions to be implemented if inspections, monitoring and/or auditing indicate that the mitigation measures listed in **Section 4** and the specialist management plans are not effective in managing environmental impacts.

**Table 24 Contingency Plan**

Key Element	Trigger / Response	Condition Green	Condition Amber	Condition Red
Noise	Trigger	Operational noise volume is in accordance with permissible and programmed volume constraints.	Operational noise volumes are within 90% of the permissible volume constraints.	Operational traffic volumes exceed permissible volume constraints.
	Response	No action. Continue ongoing monitoring activities.	Review and investigate noisy operational activities, and where appropriate, implement additional remediation measures such as: <ul style="list-style-type: none"> <li>• Undertake additional noise surveys to review cause in more detail.</li> <li>• Review OTMP (and other sub-plans) and update where necessary.</li> <li>• Provide additional training to the Tenant's representative to provide information on lowering noise emissions.</li> </ul>	Condition Amber responses, plus the following additional responses: <ul style="list-style-type: none"> <li>• Surveys of each tenancy shall be required to allow enforcement of site-specific thresholds.</li> <li>• Review OTMP and update where necessary.</li> <li>• Provide additional training to tenants to provide information on lowering noise emissions.</li> </ul>

Key Element	Trigger / Response	Condition Green	Condition Amber	Condition Red
Traffic Operational Movements	Trigger	Visual monitoring of all traffic movements within OWE does not detect unsafe movement of traffic and risk to persons and property.	Monitoring of all traffic movements within OWE detects unsafe movement of traffic and risk to persons and property.	Monitoring of all traffic movements within OWE identifies several unsafe movements of traffic and risk to persons and property.
	Response	Visual monitoring to continue daily as part of an ongoing process.	<ul style="list-style-type: none"> <li>Review needed to address persistent unsafe movements.</li> <li>Modification of traffic controls to self-enforce appropriate vehicle manoeuvres within the site.</li> </ul>	<ul style="list-style-type: none"> <li>Condition Amber responses, plus the direct cessation of unsafe movements.</li> </ul>
Traffic Operational Movements	Trigger	Following periods of adverse weather conditions (e.g. a significant heavy rain event), internal roads/aisles have been inspected prior to heavy vehicle traffic use and no issues found.	Internal roads / aisles have been inspected following adverse weather conditions and minor issues found (small potholes, dirt / debris, or pooling water).	Roads have been inspected following adverse weather conditions and major issues found (failed road integrity, large diameter potholes, fallen light poles or trees).
	Response	No further action required until next adverse weather event.	<ul style="list-style-type: none"> <li>Any impediments to access roads will be cleared.</li> <li>Road maintenance teams shall repair any potholes and remove excess water when expected traffic volumes are lowest.</li> </ul>	Condition Amber responses, plus install a detour around any unsafe obstacle to ensure safety for all motorists and/or pedestrians.
Traffic Operational Movements	Trigger	Access roads within OWE have been inspected and noted that roads are clear, and conditions support a safe environment for all road users	<ul style="list-style-type: none"> <li>Roads within OWE have been inspected and noted that vehicles are parked in</li> <li>Unsafe areas, or other road / intersection congestion has been identified during peak periods</li> </ul>	Roads within OWE have been inspected and noted that road and intersection congestion has been identified during most periods of the day
	Response	No action required.	<ul style="list-style-type: none"> <li>Clear any impediments to access roads.</li> <li>Review OTMP and update where necessary.</li> <li>Provide additional training.</li> </ul>	<ul style="list-style-type: none"> <li>Condition Amber responses, plus the following additional responses.</li> <li>Report unsafe road conditions to Council for attention.</li> </ul>

Key Element	Trigger / Response	Condition Green	Condition Amber	Condition Red
Traffic Operational Movements	Trigger	Observation of traffic control measures reveal no clear issues.	Observation of traffic control measures reveal minor issues regarding incorrect placement of signage, damaged or missing signage.	Observed traffic control measure are ineffective and creative major safety issues.
	Response	This traffic control inspection shall be completed every week for the first 2 months of operations and fortnightly thereafter for the first 6 months. Review shall continue monthly thereafter.	<ul style="list-style-type: none"> <li>Rectify/ adjust traffic control measures to improve visibility or effectiveness.</li> <li>Review needed for additional or modified traffic control measures.</li> </ul>	Condition Amber responses, plus the following additional responses: <ul style="list-style-type: none"> <li>Install a detour around any unsafe obstacle to ensure safety for all motorists and/or pedestrians.</li> </ul>
Traffic Operational Movements	Trigger	Operational traffic volume is in accordance with permissible and programmed volume constraints	Operational traffic volumes are within 90% of the permissible volume constraints	Operational traffic volumes exceed permissible volume constraints
	Response	This operational traffic volume review shall be completed monthly for the first 6 months of operation and bi-annually thereafter.	Review and investigate operational activities, and where appropriate, implement additional remediation measures such as: <ul style="list-style-type: none"> <li>Undertake review of the Site's traffic generation in more detail.</li> <li>Review OTMP and update where necessary.</li> <li>Provide additional training to tenants.</li> </ul>	Condition Amber responses, plus the following additional responses: <ul style="list-style-type: none"> <li>Temporary halting of activities and resuming when conditions have improved.</li> <li>Surveys of accesses shall be required to allow enforcement of site-specific thresholds.</li> </ul>
Traffic Queuing	Trigger	No queuing identified.	Queuing identified within the Site.	Queuing identified on the public road as a direct result from activities within the Site.

Key Element	Trigger / Response	Condition Green	Condition Amber	Condition Red
	Response	No response required. Continue monitoring program.	<ul style="list-style-type: none"> <li>Review the delivery schedules prepared by the tenant.</li> <li>Drivers be provided with additional training and an extra copy of the Driver Code of Conduct.</li> <li>Provision of additional training to the Tenant's representative should be provided to ensure the most appropriate schedule can be created.</li> </ul>	Condition Amber responses, plus the following additional responses: <ul style="list-style-type: none"> <li>Approved traffic thresholds to be enforced for each sub-tenancy.</li> <li>Review OTMP and update where necessary.</li> </ul>
Traffic Incidents	Trigger	No incidents observed or reported.	Near miss or minor incident occurred within the carriageway of OWE which did not require medical attention (such as tripping on raised footpath).	Major incident occurred within the carriageway of OWE which did not require medical attention (such as being hit by a truck while exiting a Site).
	Response	No action required at this stage, however continual reinforcement to all tenants to report all incidents shall continue.	Near miss to be reported to the appropriate Incident to be reported to Site Manager and Estate Coordinator, for immediate remedy.	Condition Amber responses, plus the following additional responses: <ul style="list-style-type: none"> <li>Temporary halting of activities and resuming when incident has been remedied.</li> <li>Incident to be reported to the Site Manager and Estate Coordinator.</li> <li>Review OTMP and update where necessary.</li> </ul>
Soil and Water - Infiltration Prevention	Trigger	No water pooling around hardstand surfaces and hardstand surfaces well maintained.	Minor water pooling and/or some degradation of hardstand surfaces	Ongoing minor or major water pooling and/or some degradation of hardstand surfaces

Key Element	Trigger / Response	Condition Green	Condition Amber	Condition Red
	Response	Continue OEMP implementation.	Remediate as required	A suitably trained person to undertake a review of the area/s. Remediate as soon as practicable.
Waste	Trigger	Monitoring/Inspections/Audits show waste and recycling is managed/segregated as per WMP and best practice	Monitoring/Inspections/Audits show waste and recycling management/segregation could be improved.	Monitoring/Inspections/Audits show waste and recycling management/segregation is poor and needs immediate improvement.
	Response	Continue OEMP implementation.	Undertake additional staff training and re-examine signage.	Undertake additional staff training, re-examine signage, review collection services provided and the WMP.
Biodiversity - Vegetation Management	Trigger	Vegetation is being managed in a stable and healthy condition as per the VMP.	Vegetation management needs minor improvement	Vegetation is not in a stable and healthy condition and performance measures (Table 4-1 of the VMP) are not being met.

Key Element	Trigger / Response	Condition Green	Condition Amber	Condition Red
	Response	Continue OEMP implementation	Undertake additional training. Follow the VMP management and maintenance actions	Suitably qualified personnel engaged to undertake maintenance work. Any defective work is rectified.
	Trigger	No unexpected wildlife is encountered in the estate.	Unexpected uninjured wildlife is encountered in the estate.	Unexpected injured/deceased wildlife is encountered in the estate.
Biodiversity - Wildlife protection	Response	Continue OEMP implementation.	<p>Stop Work Procedure:</p> <ul style="list-style-type: none"> <li>Stop Work / Prevent personnel and contractors from entering area where fauna encountered</li> <li>Tenant's to notify relevant Goodman's Representative</li> </ul> <p>Manager to assess if animal can be encouraged to leave site voluntarily and safely or if WIRES or wildlife carer is required to capture and relocate animal.</p>	<p>Stop Work Procedure:</p> <ul style="list-style-type: none"> <li>Stop Work / Prevent personnel and contractors from entering area</li> <li>Tenant's to notify relevant Goodman's Representative</li> </ul> <p>Goodman's Representative to immediately contact WIRES or other relevant wildlife carer.</p>
Irrigation	Trigger	Irrigation system operating at optimum frequency.	Irrigation system yet to be installed.	Irrigation system fails.

Key Element	Trigger / Response	Condition Green	Condition Amber	Condition Red
	Response	No response required. Continue to monitor.	Provide additional hand watering until system is installed.	<ul style="list-style-type: none"> <li>Provide additional hand watering until system is repaired.</li> <li>The irrigation system must be fully functional at all times to ensure that all plants, trees and lawns receive adequate water at optimal frequency.</li> </ul>
Plant failure	Trigger	No significant plant failure is present. Monitoring verifies that there is <5% of plants failing.	Monitoring verifies there is plant failure at a rate between 5-10%.	Monitoring verifies there is plant failure at a rate greater than 10%.
	Response	No response required. Continue to monitor.	If the cause of failure is due to a controllable situation then correct situation prior to replacing plants. All planting areas are to be free of grass and weed. Replace plants with one of similar size and quality and identical species of variety of the ones failed.	If the cause of failure is due to a controllable situation then correct situation prior to replacing plants. All planting areas are to be free of grass and weed. Replace plants with one of similar size and quality and identical species of variety of the ones failed.
Revegetation failure	Trigger	Revegetation is growing to desired design surface levels.	Monitoring verifies that weed emergence has occurred.	Monitoring verifies that weed emergence and plant failure has occurred.
	Response	No response required. Continue to monitor.	Refer to LMP for monitoring requirements once problem has been identified. Possible solutions include the removal of weeds as per Section 5.3.7 of the LMP.	Refer to LMP for monitoring requirements once problem has been identified. Possible solutions include removal of weeds and re-seeding of revegetation cover crop as per Section 5.3.7 of the LMP.

Key Element	Trigger / Response	Condition Green	Condition Amber	Condition Red
Slope failure	Trigger	No significant erosion is present that would constitute a safety hazard or compromise the capability of supporting the end land use. Monitoring verifies there are no gully or tunnel erosion features, or rill erosion >200mm deep.	Monitoring verifies there is gully or tunnel erosion features, or rill erosion 200mm deep.	Monitoring verifies there is gully or tunnel erosion features, or rill erosion >200mm deep.
	Response	No response required. Continue to monitor.	A suitably trained person to inspect the site. Investigate opportunities to install water management infrastructure to address erosion. Remediate as appropriate.	Undertake a review of the drainage of the area and provide recommendations to appropriately remediate the erosion. Remediate as soon as practicable.
Bushfire	Trigger	No bushfire or bushfire prone weather.	Bushfire prone weather during summer.	Bushfire in the vicinity of the site.
	Response	Continue OEMP implementation.	Ensure grass is kept short and vegetation is minimal at the site. Weather is to be monitored twice daily for chance of bushfire.	Stop work and contact NSW Fire and Rescue on '000'. Evacuate the site as directed by NSW Fire and Rescue.

Key Element	Trigger / Response	Condition Green	Condition Amber	Condition Red
Community - Submission	Trigger	General feedback/comment (no complaint)	Enquiry made by formal or informal channels.	Complaint made by formal or informal channels.
	Response	Acknowledge receipt and record in consultation register. No further response required.	Acknowledge receipt and record in consultation register. Direct enquiry to relevant person for actioning and response within 5 days.	Acknowledge receipt and record in consultation register. Respond to complaint immediately if possible, if not direct enquiry to relevant person for actioning and provide complainant with a follow up verbal response on what action is proposed within two hours during construction works (including night and weekend works) and 24 hours at other times.
Community - Media	Trigger	Positive story in print, online, radio or television.	Neutral or advisory story in print, online, radio or television.	Negative story in print, online, radio or television.
	Response	Record in consultation register and advise Goodman media/marketing team. No further response required.	Record in consultation register and advise Goodman media/marketing team. No further response required.	Record in consultation register and advise Goodman Project Team for further action and response. Contact relevant person for actioning and response within 48 hours.

Key Element	Trigger / Response	Condition Green	Condition Amber	Condition Red
Community - Unscheduled Event	Trigger	Event occurring outside of plan or schedule without impact or potential impact.	Event occurring outside of plan or schedule with minor impact or potential impact.	Event occurring outside of plan or schedule with major impact or potential impact.
	Response	No response required. Identify opportunities for improvement to manage potential future events.	Contact relevant person for actioning and response within 48 hours. Acknowledge in consultation register. Identify opportunities for improvement to manage potential future events.	Contact relevant person for actioning and response immediately. Acknowledge in consultation register. Identify opportunities for improvement to manage potential future events.
Community - Political Interest	Trigger	General or non-specific enquiry by Local, State or Federal political representative.	Enquiry or complaint relating to minor issue by Local, State or Federal political representative.	Enquiry or complaint relating to major issue by Local, State or Federal political representative.
	Response	Community consultation team in conjunction with Goodman Project Team to prepare and provide response or assign response task to relevant staff member for comment. Record in consultation register.	Community consultation team in conjunction with Goodman Project Team to prepare and provide response within 48 hours. Record in consultation register.	Community consultation team in conjunction with Goodman Project Team to prepare and provide response within 24 hours. Record in consultation register.
Sustainability	Trigger	Energy and water usage reviews indicate systems are performing efficiently and employees are following energy savings procedures correctly.	Reviews indicate that energy savings procedures are not carried out effectively.	Reviews indicate that excessive water and energy usage is occurring.
	Response	Continue OEMP implementation	Undertake additional staff training, re-examine signage and procedures.	Undertake additional staff training, re-examine signage, review the SMP.

## 7 Review

Review of the OEMP will be undertaken regularly by Goodman's Representative in and will comprise, as a minimum, the following:

- Identification of areas of opportunity for improved environmental performance;
- Analysis of the causes of non-compliances, including those identified in environment inspections and audits;
- Verification of the effectiveness of corrective and preventative actions; and
- Highlighting any changes in procedures resulting from process improvement.

Condition D133 of SSD 7348 also states that all strategies, plans and programs required under SSD 7348 will be reviewed and Planning Secretary notified of the review within three months of:

- the submission of a Compliance Report under condition D141;
- the submission of an incident report under condition D135;
- the approval of any modification of the conditions of this consent; or
- the issue of a direction of the Planning Secretary under Condition D2(b) which requires a review.

This OEMP will also be reviewed and, if necessary, revised in the following circumstances:

- Where there is any change to the scope of the operation activities and/or disturbance footprint;
- Where it is identified that the environmental performance is not meeting the objectives of the OEMP; and/or
- At the request of a relevant regulatory authority.

Notwithstanding the review requirements outlined above, in accordance with the requirements of Condition D118(g) the following is provided as the protocol for periodic review of this OEMP and all management plans required under SSD 734:

- All management plans required under SSD 7348 are to be reviewed every 12 months by Goodman's Environmental Consultant;
- The periodic review is to take account of any required changes to procedures, updates or changes to best practice, any non-compliances in the proceeding 12 month period and whether changes can be made to improve the environmental performance of the development;
- As per Condition D134 of SSD 7348, revised documents will be sent to DPE within 6 weeks of review. All employees and contractors will be informed of any revisions to the OEMP by the Tenant Representative's toolbox talk during toolbox talks; and
- Note: If the Planning Secretary agrees, a strategy, plan or program may be staged or updated without consultation being undertaken with all parties required to be consulted in the relevant conditions of SSD 7348.

## 8 References

- Ason (2022) Operational Traffic Management Plan – Oakdale West I Estate – Framework Traffic Management Plan
- Australian Bushfire Protection Planners (ABPP) (2016) Bushfire Protection Assessment
- Department of Environment (2018) Compliance Reporting Post Approval Requirements
- Department of Environment and Climate Change (2007) Storing and Handling of Liquids: Environmental Protection – Participants Manual
- Department of Infrastructure, Planning and Natural Resources (2004) Guideline for the Preparation of Environmental Management Plans
- Ecologique (2019) Oakdale West Estate, Vegetation Management Plan
- Ecologique (2022) Oakdale West Estate, Operational Flora and Fauna Management Plan
- EPA (2014) Waste Classification Guidelines Part 1: Classifying Waste
- GHD (2020) Oakdale West Industrial Estate Concept Plan and Stage 1 Modification (MOD 3 SSD 7348) and Stage 2 Development Application (SSD 10397) – Environmental Impact Statement
- Goodman (2018) Corporate Responsibility and Sustainability Policy
- Goodman (2020) MOD 4, SSD 7348 – S4.55(1A) Application to Modify the consent to Include Works on Lot 9 DP 1157476
- Goodman (2021) SSD 7348 MOD2 - Oakdale West Industrial Estate – S.4.55(1A) Application to Modify Architecture Plans and Subdivision Plan
- Goodman (2021a) SSD 7348 MOD8 - Oakdale West Industrial Estate – S.4.55(1A) Application to Modify Architecture Plans and Subdivision Plan
- Goodman (2022) SSD 7348 MOD10 - Oakdale West Industrial Estate – S.4.55(1A) Application to Modify Architecture Plans and Subdivision Plan
- Keylan Consulting (2020) Statement of Environmental Effects, Oakdale West Industrial Estate Warehouse 3B (SEE)
- Keylan Consulting (2020a) Assessment Report Section 4.55(1A) Modification, SSD 7348 Modification 6
- Keylan Consulting (2021) Assessment Report Section 4.55(1A) Modification, SSD 7348 Modification 7
- Keylan Consulting (2021a) Assessment Report Section 4.55(1A) Modification, SSD 7348 Modification 9
- NSW Rural Fire Service (2019) Planning for Bushfire Protection
- Pells Sullivan Meynink (2015) OWE Salinity Management Plan

Scape Design (2022) Oakdale West Estate, Landscape Management Plan

SLR (2021) Oakdale West – Lot 3B, Sustainability Management Plan

SLR (2019) Compliance Monitoring and Reporting Program

SLR (2021) Oakdale West Building 3B, Waste Management Plan

SLR (2022) Oakdale West Industrial Estate Operational Environmental Management Plan

SLR (2022a) Community Communications Strategy, Oakdale West Estate

Urbis (2017) Environmental Impact Statement, Oakdale West Estate – State Significant Development Application (EIS)

Urbis (2019) Oakdale West Industrial Estate (SSD 7348) Modification 1

Urbis (2020) Oakdale West Estate SSD 7348, Section 4.55(1A) Modification No. 5 – Environmental Assessment Report

# Appendix A

## Development Consent DA 21/0440

# PENRITH CITY COUNCIL

## NOTICE OF DETERMINATION

### DEVELOPMENT APPLICATION DETAILS

Application number:	Mod22/0041
Description of development:	Amendment to Approved Car Park Driveway and Cross-Over Location
Classification of development:	Class 7a
Name of Applicant:	Goodman Property Services (Aust) Pty Ltd

### DETAILS OF THE LAND TO BE DEVELOPED

Legal description:	Lot 108 DP 1262310
Property address:	2 - 24 Emporium Avenue, KEMPS CREEK NSW 2178

### DECISION OF CONSENT AUTHORITY

In accordance with Sections 4.18(1) (a) and 4.54 of the Environmental Planning and Assessment Act 1979, consent is granted subject to the conditions listed in attachment 1.

Please note that this consent will lapse on the expiry date unless the development has commenced in that time.

Decision	Approve
Date from which consent operates	25 November 2021
Date the consent expires	25 November 2026
Date of this decision	22 November 2021 as amended on 22 March 2022 under Section 4.55 of the Environmental Planning and Assessment Act.

### POINT OF CONTACT

If you have any questions regarding this determination you should contact:

Assessing Officer:	Phillip Doy
Contact telephone number:	+61247327654

## NOTES

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### **Reasons**

The conditions in the attached schedule have been imposed in accordance with Section 4.17 of the Environmental Planning and Assessment Act 1979 as amended.

### **Conditions**

Your attention is drawn to the attached conditions of consent in attachment 1.

### **Certification and advisory notes**

You should also check if this type of development requires a construction certificate in addition to this development consent.

It is recommended that you read any Advisory Note enclosed with this notice of determination.

### **Review of determination**

The applicant may request Council to review its determination pursuant to Division 8.2 of the Environmental Planning and Assessment Act 1979 within twelve months of receiving this Notice of Determination.

These provisions do not apply to designated development, complying development or crown development pursuant to Section 8.2(2) of the Environmental Planning and Assessment Act 1979.

### **Appeals in the Land and Environment Court**

The applicant can appeal against this decision in the Land and Environment Court within twelve months of receiving this Notice of Determination.

There is no right of appeal to a decision of the Independent Planning Commission or matters relating to a complying development certificate pursuant to clause 8.6(3) of the Environmental Planning and Assessment Act 1979.

### **Designated development**

If the application was for designated development and a written objection was made in respect to the application, the objector can appeal against this decision to the Land and Environment Court within 56 days after the date of this notice.

If the applicant appeals against this decision, objector(s) will be given a notice of the appeal and the objector(s) can apply to the Land and Environment Court within 56 days after the date of this appeal notice to attend the appeal and make submissions at that appeal.

### **Sydney Western City Planning Panels**

If the application was decided by the Sydney Western City Planning Panel, please refer to Section 2.16 of the Environmental Planning and Assessment Act, 1979 (as amended) for any further regulations.

# ATTACHMENT 1: CONDITIONS OF CONSENT

## General

- 1 The development must be consistent with the stamped approved by Council, the application form and any supporting information received with the application, except as may be amended in red on the attached plans and by the following conditions.

Drawing Title	Prepared By	Drawing No.	Revision	Date
Architectural Plans all Job No. 20188				
Cover Page	SBA Architects	DA10	C	18/06/21
Site & Warehouse Plan	SBA Architects	DA20	<u>L</u>	<b>19/09/21</b>
Roof Plan	SBA Architects	DA21	C	18/06/21
Floor Plan- Office Plan- 3B1	SBA Architects	DA22	C	18/06/21
Floor Plan - Office Plan - 3B2	SBA Architects	DA23	C	18/06/21
Floor Plan- Elevation Dock Office	SBA Architects	DA24	B	21/06/21
Elevation & Section - Warehouse 3B1/3B2	SBA Architects	DA30	C	18/06/21
Elevations- Office 3B1	SBA Architects	DA31	C	18/06/21
Elevations- Office 3B2	SBA Architects	DA33	C	18/06/21
Signage Plan	SBA Architects	DA39	D	21/06/21
Civil Plans Project No. 15-272				
Cover Sheet	AT&L	15-272-C7400	A	31/05/21
General Notes	AT&L	15-272-C7401	A	31/05/21
General Arrangement Plan	AT&L	15-272-C7405	<b>C</b>	<b>12/11/21</b>
Typical Sections Sheet 1	AT&L	15-272-C7410	<b>C</b>	<b>12/11/21</b>
Typical Sections Sheet 2	AT&L	15-272-C7411	<b>C</b>	<b>12/11/21</b>
Bulk Earthworks Plan	AT&L	15-272-C7415	<b>C</b>	<b>12/11/21</b>
Siteworks and Stormwater Drainage Sheet 1	AT&L	15-272-C7420	<b>C</b>	<b>12/11/21</b>

Siteworks and Stormwater Drainage Plan Sheet 2	AT&L	15-272-C7421	<b>C</b>	<b>12/11/21</b>
Siteworks and Stormwater Drainage Plan Sheet 3		15-272-C7422	<b>C</b>	<b>12/11/21</b>
Siteworks and Stormwater Drainage Plan Sheet 4		15-272-C7423	<b>C</b>	<b>12/11/21</b>
Pavement Plan	AT&L	15-272-C7430	<b>C</b>	<b>12/11/21</b>
Erosion and Sediment Control Plan	AT&L	15-272-C7440	<b>C</b>	<b>12/11/21</b>
Erosion and Sediment Details	AT&L	15-272-C7441	A	31/05/21
<b>Landscape Plans</b>				
Cover Sheet	Scape Design	L.SK.00	F	14/09/21
Landscape Sketch	Scape Design	L.SK.01	<b>G</b>	<b>10/11/21</b>
Planting Plan	Scape Design	L.SK.02	<b>G</b>	<b>10/11/21</b>
Planting Schedule	Scape Design	L.SK.03	<b>G</b>	<b>10/11/21</b>
Character & Materials	Scape Design	L.SK.04	<b>G</b>	<b>10/11/21</b>
Landscape Detailed Plan & Notes	Scape Design	L.SK.105	<b>F</b>	14/09/21
Carpark Details	Scape Design	L.SK.200	<b>G</b>	<b>10/11/21</b>
Landscape - Sections Sheet 1	Scape Design	L.SK.201	<b>F</b>	<b>10/11/21</b>
Landscape - Sections Sheet 2	Scape Design	L.SK.202	E	13/09/21
Landscape - Sections Sheet 3	Scape Design	L.SK.203	B	14/09/21
<b>Subdivision Plans</b>				
Plan of Subdivision of Lot 108 in DP 1262310	Scott Peter Lindsay Lord	-	Sheet 1 of 2	09/09/21
Plan of Subdivision of Lot 108 in DP 1262310	Scott Peter Lindsay Lord	-	Sheet 2 of 2	09/09/21

- Requirement to Update Air Quality Impact Assessment, prepared by SLR and dated 15 June, 2021,
- Bushfire Risk Assessment, prepared by Blackash Bushfire Consulting and dated 14 June, 2021,
- BCA Assessment Report, prepared by Blackett Maguire and Goldsmith and dated 31 May, 2021,
- Fire Safety Strategy, prepared by Core Engineering Group and dated 18 June, 2021,
- Noise and Vibration Assessment, prepared by Wilkinson Murray and dated 18 June, 2021,
- Sustainability Management Plan, prepared by SLR and dated 8 September, 2021,
- Transport Assessment, prepared by Ason Group and dated, 18 June, 2021,
- Waste Management Plan, prepared by SLR and dated 15 June, 2021, and

- Lot 3B Civil Report, prepared by AT&L and dated 31 May, 2021.

**As amended on 22 March 2022 under Section 4.55(1A) of the Environmental Planning and Assessment Act 1979.**

- 2 **The development shall not be used or occupied until an Occupation Certificate has been issued.**
- 3 The approved operating hours are 24 hours a day, 7 days a week.
- 4 All materials and goods associated with the use shall be contained within the building at all times.
- 5 **Prior to the issue of an Occupation Certificate**, a lighting system shall be installed for the development to provide uniform lighting across common areas and driveways. Exterior lighting shall be located and directed in such a manner so as not to create a nuisance to surrounding land uses. The lighting shall be the minimum level of illumination necessary for safe operation. The lighting shall be in accordance with AS 4282 "Control of the obtrusive effects of outdoor lighting" (1997).
- 6 The finishes of the building are to be maintained at all times and any graffiti or vandalism immediately removed/repaired.
- 7 A **Construction Certificate** shall be obtained prior to commencement of any building works.
- 8 **Prior to the issue of an Occupation Certificate**, the proposed lot shall be registered.
- 9 The approved development, the subject of this development consent, is not to contravene the State Significant Development consent 7348 (as modified) or the relevant Planning Agreement. The onus is on the landowner and proponent to ensure that the SSD 7348 conditions and Planning Agreement obligations are met.
- 10 The parking directory signage shall be located entirely within the proposed lot boundaries.
- 11 The installation of the approved signage shall be carried out strictly in accordance with the manufacturer's specifications. Any wiring or installation fixtures associated with the signage or internal illumination shall be contained wholly within the body of the signage and not be visible from the public domain.
- 12 **Prior to the issue of an Occupation Certificate**, detailed signage plans shall be provided to Penrith City Council for approval. The signage plans shall detail the business identification signage which is indicative at this stage.
- 13 In accordance with the recommendations of the urban design report endorsed by SSD 7348, no highlight colours, including the 'Goodman Green', should be used where they will be visible from sensitive receivers along the western elevation, and no approval is granted to the installation of the Goodman signage visible from the sensitive receivers.

## Environmental Matters

- 14 Erosion and sediment control measures shall be installed prior to the commencement of works on site and be maintained in accordance with the approved erosion and sediment control plan(s) for the development and the Department of Housing's "Managing Urban Stormwater: Soils and Construction" 2004.

The approved sediment and erosion control measures are to be installed prior to and maintained throughout the construction phase of the development until completion of this development (including vehicular access and parking areas and landscaping). These measures shall ensure that mud and soil from vehicular movements to and from the site does not occur during the construction of the development.

- 15 No fill material is to be imported to the site without the prior approval of Penrith City Council in accordance with Sydney Regional Environmental Plan No.20 (Hawkesbury- Nepean River) (No.2-1997). No recycling of material for use as fill material shall be carried out on the site without the prior approval of Council.

- 16 An appropriately qualified person/s shall:

- Supervise all filling works.
- (On completion of filling works) carry out an independent review of all documentation relating to the filling of the site, and submit a review findings report to Council and any Principal Certifying Authority. All fill material documentation is to (at minimum):
  - be prepared by an appropriately qualified person with consideration of all relevant guidelines, standards, planning instruments and legislation (e.g. EPA, NEPM, ANZECC, NH&MRC),
  - clearly state the legal property description of the fill material source site and the total amount of fill tested,
  - provide details of the volume of fill material to be used in the filling operations,
  - provide a classification of the fill material to be imported to the site in accordance with the NSW Environment Protection Authority's "Waste Classification Guidelines" 2009, and
  - (based on the fill classification) determine whether the fill material is suitable for its intended purpose and land use and whether the fill material will or will not pose an unacceptable risk to human health or the environment.
- Certify by way of a Compliance Certificate or other written documentation that fill materials have been placed on the site in accordance with all conditions of this consent and that the site will not pose an unacceptable risk to human health or the environment. A copy of the Compliance Certificate or other documentation shall be submitted to Council and any Principal Certifying Authority.

The contact details of any appropriately qualified person/s engaged for the works shall be provided with the Notice of Commencement.

If the Principal Certifying Authority or Penrith City Council is not satisfied that suitable fill materials have been used on the site, further site investigations or remediation work may be requested. In these circumstances the works shall be carried out prior to any further approved works.

{Note: An appropriately qualified person is defined as "a person who, in the opinion of Council, has a demonstrated experience, or access to experience in hydrology, environmental chemistry, soil science, ecotoxicology, sampling and analytical procedures, risk evaluation and remediation technologies. In addition, the person will be required to have appropriate professional indemnity and public risk insurance."}

- 17 Where a building is to take place on any land that is to be filled, such filling is to be compacted in accordance with AS3798-1996. Certification is to be submitted to the Principal Certifying Authority by a Geotechnical Engineer verifying that the work has been undertaken prior to the commencement of the construction of any building.

If Penrith City Council is not the Principal Certifying Authority, a copy of the certification is to be submitted to Council for their reference.

- 18 All construction waste materials stored on-site are to be contained within a designated area such as a waste bay or bin to ensure that no waste materials are allowed to enter the stormwater system or neighbouring properties. The designated waste storage areas shall be fully enclosed when the site is unattended.

- 19 All excavated material and other construction wastes generated as a result of the development are to be re-used, recycled or disposed of in accordance with the approved waste management plan.

Waste materials not specified in the approved waste management plan are to be disposed of at a lawful waste management facility. Where the disposal location or waste materials have not been identified in the waste management plan, details shall be provided to the Certifying Authority as part of the waste management documentation accompanying the Construction Certificate application.

All receipts and supporting documentation must be retained in order to verify lawful disposal of materials and are to be made available to Penrith City Council on request.

- 20 Noise levels from the premises (including all associated plant and equipment) shall not exceed the relevant noise criteria detailed in the '*Noise & Vibration Assessment (RWDI # 2102730D)*' prepared by Wilkinson Murray and dated 9 August 2021. The recommendations provided in the Noise and Vibration Assessment report shall be implemented and incorporated into the design, construction and operation of the development, and where relevant, shall be shown on plans accompanying the Construction Certificate application. A certificate is to be obtained from a qualified acoustic consultant certifying that the building (including all associated mechanical plant and ventilation) has been constructed to meet the noise criteria in accordance with the approved acoustic report. This certificate is to be submitted to the Principal Certifying Authority prior to the issue of an Occupation Certificate.

The provisions of the Protection of the Environment Operations Act 1997 apply to the development, in terms of regulating offensive noise.

- 21 Mud and soil from vehicular movements to and from the site must not be deposited on the road.

## **BCA Issues**

- 22 Access and sanitary facilities for persons with disabilities are to be provided and maintained in accordance with the requirements of the Building Code of Australia and AS 1428 "Design for Access and Mobility". Details of compliance are to be provided in the relevant plans and specifications accompanying the Construction Certificate application.

- 23 All aspects of the building design shall comply with the applicable performance requirements of the Building Code of Australia so as to achieve and maintain acceptable standards of structural sufficiency, safety (including fire safety), health and amenity for the on-going benefit of the community. Compliance with the performance requirements can only be achieved by:
- (a) complying with the deemed to satisfy provisions, or
  - (b) formulating a performance solution which:
    - complies with the performance requirements, or
    - is shown to be at least equivalent to the deemed to satisfy provision, or
  - (c) a combination of (a) and (b).

It is the owner's responsibility to place on display, in a prominent position within the building at all times, a copy of the latest fire safety schedule and fire safety certificate/ statement for the building.

## Health Matters and OSSM installations

- 24 The rainwater tank must be maintained so as not to create a nuisance and it must be protected against mosquito infestation.

## Utility Services

- 25 A Section 73 Compliance Certificate under the Sydney Water Act 1994 shall be obtained from Sydney Water. The application must be made through an authorised Water Servicing Coordinator. Please refer to "Your Business" section of Sydney Water's website at [www.sydneywater.com.au](http://www.sydneywater.com.au) then the "e-developer" icon, or telephone 13 20 92.

The Section 73 Compliance Certificate must be submitted to the Principal Certifying Authority **prior to the issue of an Occupation Certificate.**

- 26 **Prior to the issue of a Construction Certificate**, a written clearance is to be obtained from Endeavour Energy stating that electrical services have been made available to the development or that arrangements have been entered into for the provision of services to the development.

In the event that a pad mounted substation is necessary to service the development, Penrith City Council shall be consulted over the proposed location of the substation before the Construction Certificate for the development is issued as the location of the substation may impact on other services and building, driveway or landscape design already approved by Council.

- 27 **Prior to the issue of a Construction Certificate**, the Principal Certifying Authority shall be satisfied that telecommunications infrastructure may be installed to service the premises which complies with the following:

- The requirements of the Telecommunications Act 1997:
- For a fibre ready facility, the NBN Co's standard specifications current at the time of installation; and
- For a line that is to connect a lot to telecommunications infrastructure external to the premises, the line shall be located underground.

Unless otherwise stipulated by telecommunications legislation at the time of construction, the development must be provided with all necessary pits and pipes, and conduits to accommodate the future connection of

optic fibre technology telecommunications.

**Prior to the issue of an Occupation Certificate**, written certification from all relevant service providers that the telecommunications infrastructure is installed in accordance with the requirements above and the applicable legislation at the time of construction, must be submitted to the Principal Certifying Authority.

## Construction

28 Stamped plans, specifications, a copy of the development consent, the Construction Certificate and any other Certificates to be relied upon shall be available on site at all times during construction.

The following details are to be displayed in a maximum of 2 signs to be erected on the site:

- the name of the Principal Certifying Authority, their address and telephone number,
- the name of the person in charge of the work site and telephone number at which that person may be contacted during work hours,
- that unauthorised entry to the work site is prohibited,
- the designated waste storage area must be covered when the site is unattended, and
- all sediment and erosion control measures shall be fully maintained until completion of the construction phase.

Signage but no more than 2 signs stating the above details are to be erected:

- at the commencement of, and for the full length of the, construction works onsite, and
- in a prominent position on the work site and in a manner that can be easily read by pedestrian traffic.

All construction signage is to be removed when the Occupation Certificate has been issued for the development.

29 Prior to the commencement of construction works:

(a) Toilet facilities at or in the vicinity of the work site shall be provided at the rate of one toilet for every 20 persons or part of 20 persons employed at the site. Each toilet provided must be:

- a standard flushing toilet connected to a public sewer, or
- if that is not practicable, an accredited sewage management facility approved by the council, or
- alternatively, any other sewage management facility approved by council.

(b) All excavations and backfilling associated with the erection or demolition of a building must be executed safely and in accordance with the appropriate professional standards. All excavations associated with the erection or demolition of a building must be properly guarded and protected to prevent them from being dangerous to life or property.

(c) If an excavation associated with the erection or demolition of a building extends below the level of the base of the footings of a building on an adjoining allotment of land, the person causing the excavation to be made:

- must preserve and protect the building from damage, and
- if necessary, must underpin and support the building in an approved manner, and
- must, at least 7 days before excavating below the level of the base of the footings of a building on an adjoining allotment of land, give notice of intention to do so to the owner of the adjoining allotment of land and furnish particulars of the excavation to the owner of the building being erected or demolished. The owner of the adjoining allotment of land is not liable for any part of the cost of work carried out for the purposes of this condition, whether carried out on the allotment of land being excavated or on the adjoining allotment of land, (includes a public road and any other public place).

(d) If the work involved in the erection or demolition of a building is likely to cause pedestrian or vehicular traffic in a public place to be obstructed or rendered inconvenient, or involves the enclosure of a public place, a hoarding or fence must be erected between the work site and the public place:

- if necessary, an awning is to be erected, sufficient to prevent any substance from, or in connection with, the work falling into the public place,
- the work site must be kept lit between sunset and sunrise if it is likely to be hazardous to persons in the public place, and
- any such hoarding, fence or awning is to be removed when the work has been completed.

30 The rainwater tank(s) is to be:

- erected on a self-supporting base in the approved location on the property in accordance with the stamped-approved site plans for the development,
- structurally sound and constructed in accordance with AS/NZS 3500 1.2- 1998: National Plumbing and Drainage - Water Supply - Acceptable Solutions,
- fully enclosed and all openings sealed to prevent access by mosquitoes,
- fitted with a first flush device,
- fitted with a trickle system to top up from mains water,
- provided with an air gap, and
- installed by a licensed plumber in accordance with Sydney Water's "Plumbing requirements Information for rainwater tank suppliers and plumbers April 2003" and the NSW Code of Practice: Plumbing and Drainage.

Additionally, the following are to be provided:

- A back flow prevention device shall be provided at the water meter in accordance with Sydney Water requirements.
- In the event of a power failure, a back up supply of mains water shall be provided to at least one toilet in the dwelling.

- The rainwater tank(s) and associated piping is to be labelled 'Rainwater - Not for Drinking' in accordance with Sydney Water requirements.
- The rainwater tank and pipework is to be painted in colours matching the external finishes of the dwelling and is to be of non-reflective finish.
- The overflow for the rainwater tank is to be connected into the existing stormwater disposal system on the site.

Before a rainwater tank(s) can be used, a certificate or suitable document is to be submitted to the Principal Certifying Authority stating that the rainwater tank has been installed in accordance with:

- the Manufacturer's Specifications, and
- Sydney Water and NSW Health requirements.

This certificate or documentation is to be provided by the licensed plumber who installed the rainwater tank on the property, and is to be submitted prior to the issue of the Occupation Certificate.

- 31 The catchment area (for the rainwater tank) includes the parts of the roof of the dwelling(s) from which water is collected and includes gutters. To ensure a safe supply of water:
- roof catchment areas must be kept clear of overhanging vegetation,
  - gutters must have sufficient fall to downpipes to prevent pooling of water,
  - overflow, discharge from bleed off pipes from roof mounted appliances such as airconditioners, hot water services and solar heaters must not discharge into the rainwater catchment area,
  - for roofs containing lead based, tar based or asbestos material the tank supply must not be connected to drinking, bathing and gardening tap water outlets,
  - appropriate measures must be installed to prevent foreign materials from contaminating the water which enters the rainwater tank.
- 32 The rainwater tank supply must not be connected to drinking and bathing water tap outlets.
- 33 The rainwater tank pump must not exceed 5dBA above ambient background noise level at the nearest residential property boundary. The provisions of the Protection of the Environment Operations Act 1997 apply to the development, in terms of regulating offensive noise.
- 34 Construction works or subdivision works that are carried out in accordance with an approved consent that involve the use of heavy vehicles, heavy machinery and other equipment likely to cause offence to adjoining properties shall be restricted to the following hours in accordance with the NSW Environment Protection Authority Noise Control Guidelines:
- Mondays to Fridays, 7am to 6pm
  - Saturdays, 7am to 1pm (if inaudible on neighbouring residential premises), otherwise 8am to 1pm
  - No work is permitted on Sundays and Public Holidays.

Other construction works carried out inside a building/tenancy and do not involve the use of equipment that emits noise are not restricted to the construction hours stated above.

The provisions of the Protection of the Environment Operations Act, 1997 in regulating offensive noise also apply to all construction works.

## Engineering

- 35 All roadworks, stormwater drainage works, signage, line marking, associated civil works and dedications required to effect the consented development shall be undertaken by the applicant at no cost to Penrith City Council.
- 36 An Infrastructure Restoration Bond is to be lodged with Penrith City Council for development involving works around Penrith City Council's Public Infrastructure Assets. The bond is to be lodged with Penrith City Council prior to commencement of any works on site or prior to the issue of any Construction Certificate or Subdivision Works Certificate, whichever occurs first. The bond and applicable fees are in accordance with Council's adopted Fees and Charges.

An application form together with an information sheet and conditions are available on Council's website.

Contact Penrith City Council's Asset Management Department on 4732 7777 or visit Penrith City Council's website for more information.

- 37 Prior to the issue of any Construction Certificate or Subdivision Works Certificate, a Section 138 Roads Act application, including payment of application and inspection fees together with any applicable bonds, shall be lodged with and approved by Penrith City Council (being the Roads Authority for any works required in a public road). These works may include but are not limited to the following:
- a) Vehicular crossings (including kerb reinstatement of redundant vehicular crossings)
  - b) Concrete footpaths and or cycleways
  - c) Road opening for utilities and stormwater (including stormwater connection to Penrith City Council roads and other Penrith City Council owned drainage)
  - d) Road occupancy or road closures (including temporary construction work zones and tower crane operation)
  - e) The placement of hoardings, structures, containers, waste skips, signs etc. in the road reserve
  - f) Temporary construction access
  - g) Temporary ground anchors (for basement construction)

All works shall be carried out in accordance with the Roads Act approval, the development consent, including the stamped approved plans, and Penrith City Council's specifications, guidelines and best engineering practice.

Contact Penrith City Council's Asset Management Department on 4732 7777 or visit Penrith City Council's website for more information.

Note:

- Where Penrith City Council is the Certifier for the development, the Roads Act approval for the above works may be issued concurrently with the Construction Certificate or Subdivision Works Certificate.
- Separate approval may be required from Transport for NSW for classified roads.
- All works associated with the Roads Act approval must be completed prior to the issue of any Occupation Certificate or Subdivision Certificate as applicable.
- On completion of any awning over the road reserve, a certificate from a practising structural engineer certifying the structural adequacy of the awning is to be submitted to Council before Council will inspect

the works and issue its final approval under the Roads Act.

- 38 The stormwater management system shall be consistent with the plans lodged for development approval, prepared by AT&L, reference number 15-272, revision A, dated 31.05.2021.

Prior to the issue of any Construction Certificate or Subdivision Works Certificate, the Certifier shall ensure that the stormwater management system has been designed in accordance with Penrith City Council's Stormwater Drainage Specification for Building Developments and Water Sensitive Urban Design (WSUD) Policy.

Engineering plans and supporting calculations for the stormwater management system are to be prepared by a suitably qualified person and shall accompany the application for a Construction Certificate or Subdivision Works Certificate.

- 39 Prior to the issue of any Construction Certificate or Subdivision Works Certificate, the Certifier shall ensure that vehicular access, circulation, manoeuvring, pedestrian and parking areas associated with the subject development are in accordance with Penrith City Council's Development Control Plan, AS2890.1, AS2890.2 and AS2890.6.

- 40 Prior to the commencement of any works on-site (including demolition works) or prior to the issue of any Construction Certificate or Subdivision Works Certificate, whichever occurs first, a Construction Traffic Management Plan (CTMP) shall be submitted to Penrith City Council's Asset Management Department for endorsement. The CTMP shall be prepared by a suitably qualified consultant with appropriate training and certification from Transport for NSW. The CTMP shall include details of any required road closures, work zones, loading zones and the like. Approval of the CTMP may require approval of the Local Traffic Committee. Please contact Council's Asset Management Department on 4732 7777 and refer to Council's website for a copy of the Temporary Road Reserve Occupancy Application Form.

- 41 Prior to the issue of any Occupation Certificate, the Principal Certifier shall ensure that all works associated with a S138 Roads Act approval or S68 Local Government Act approval have been inspected and signed off by Penrith City Council.

- 42 Prior to the issue of any Occupation Certificate, Works As Executed drawings, final operation and maintenance management plans and any other compliance documentation for the stormwater management system shall be submitted to the Principal Certifier in accordance with Penrith City Council's Engineering Construction Specification for Civil Works, Stormwater Drainage Specification for Building Developments and WSUD Technical Guidelines.

An original set of Works As Executed drawings and copies of the final operation and maintenance management plans and compliance documentation shall also be submitted to Penrith City Council with notification of the issue of the Occupation Certificate where Penrith City Council is not the Principal Certifier.

- 43 Prior to the issue of any Occupation Certificate, the Principal Certifier shall ensure that the:

a) Stormwater management systems (including on-site detention and water sensitive urban design)

- have been satisfactorily completed in accordance with the approved Construction Certificate or Subdivision Works Certificate and the requirements of this consent;
- have met the design intent with regard to any construction variations to the approved design, and;
- Any remedial works required to be undertaken have been satisfactorily completed.

Details of the approved and constructed system/s shall be provided as part of the Works As Executed drawings.

44 Prior to the issue of any Occupation Certificate, a restriction on the use of land and positive covenant relating to the:

a) Stormwater management systems (including on-site detention and water sensitive urban design)

shall be registered on the title of the property. The restriction on the use of land and positive covenant shall be in Penrith City Council's standard wording as detailed in Council's Stormwater Specification for Building Developments - Appendix F.

45 Prior to the issue of any Occupation Certificate, directional signage and line marking shall be installed indicating directional movements and the location of customer parking to the satisfaction of the Principal Certifier.

46 The stormwater management system shall continue to be operated and maintained in perpetuity for the life of the development in accordance with the final operation and maintenance management plan.

Regular inspection records are required to be maintained and made available to Penrith City Council on request. All necessary improvements are required to be made immediately upon awareness of any deficiencies in the stormwater management systems.

47 The car parking area for warehouse 3B shall have a minimum of three car parking spaces connected to an Electric Vehicle Charging Station (EVCS) and a minimum of four other car parking spaces shall be designed to be readily retrofitted to connect to an EVCS. The parking area for warehouse 3B2 car park shall have a minimum of two parking spaces connected to an EVCS and a minimum of three other car parking spaces shall be designed to be readily retrofitted to connect to an EVCS.

The charging stations are to be designed to accommodate commercially available public vehicles and their required connector types (currently known as Type 1 and Type 2 connectors).

The installed EVCS car parking spaces are to be signposted and marked for the use of electric vehicles only and are to be located as close as possible to the building. EVCS shall be free of charge to staff and visitors.

48 The required sight lines around the driveway entrances and exits shall not be compromised by street trees, landscaping or fencing.

49 Sight distance requirements at verges, footpaths and driveways shall be in accordance with AS 2890.2 Figure 3.3 and Figure 3.4.

50 All vehicles shall enter and leave to site in a forward direction.

## Landscaping

51 All landscape works are to be constructed in accordance with the stamped approved plans and Chapter C6 Landscape Design of Penrith Development Control Plan 2014.

Landscaping shall be maintained:

- in accordance with the approved plan, and
- in a healthy state, and in perpetuity by the existing or future owners and occupiers of the property.

If any of the vegetation comprising that landscaping dies or is removed, it is to be replaced with vegetation of the same species and, to the greatest extent practicable, the same maturity as the vegetation which died or was removed.

52 The approved landscaping for the site must be constructed by a suitably qualified and experienced landscape professional.

53 Upon completion of the landscape works associated with the development and **prior to the issue of an Occupation Certificate** for the development, an Implementation Report must be submitted to the Principal Certifying Authority attesting to the satisfactory completion of the landscaping works for the development. The report is to be prepared by a suitably qualified and experienced landscape professional.

An Occupation Certificate should not be issued until such time as a satisfactory Implementation Report has been received. If Penrith City Council is not the Principal Certifying Authority, a copy of the satisfactory Implementation Report is to be submitted to Council together with the Occupation Certificate for the development.

54 All plant material associated with the construction of approved landscaping is to be planted in accordance with Penrith Development Control Plan 2014.

55 All landscape works are to meet industry best practice and the following relevant Australian Standards:

- AS 4419 Soils for Landscaping and Garden Use,
- AS 4454 Composts, Soil Conditioners and Mulches, and
- AS 4373 Pruning of Amenity Trees.

56 No trees are to be removed, ringbarked, cut, topped or lopped or wilfully destroyed (other than those within the proposed building footprint or as shown on the approved plans) without the prior consent of Penrith City Council and in accordance with State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017.

57 All required fencing and retaining walls shall be at the full cost of the property owner/developer. The materials and colours of any new fencing or retaining walls shall match or complement the external materials of the development. Retaining walls are to be of masonry construction.

## Subdivision

58 **Prior to the issue of the Subdivision Certificate**, the following is to be submitted:

An original plan of subdivision and two (2) copies of the plan. The plan of subdivision must indicate, where relevant:

- All drainage easements, rights of way, restrictions and covenants.
- All proposed dedications of roads/drainage/public reserve, which are to be undertaken at no cost to Penrith City Council.

The following information is to be shown on one (1) copy of the plan.

- The location of all buildings and/or other permanent improvements shall comply with any statutory boundary clearances or setbacks as defined by the Building Code of Australia and Council's resolutions.
- All existing services are wholly contained within the lot served and/or covered by an appropriate easement.

**Prior to lodgement of the Subdivision Certificate Application, street address numbering must be obtained/approved by Penrith City Council's Rates Team. Proposed street addresses can be forwarded to [council@penrith.city](mailto:council@penrith.city) for approval.**

59 The linen plan of subdivision is to be supported by an 88B instrument creating the following encumbrance:  
a) The Oakdale West Estate Voluntary Planning Agreements (SVPA-2017-8367) is to be noted on the title of any related Lot(s). The onus is on the landowner to ensure that all obligations of the applicable Planning Agreements which apply to particular Lots being the subject of this consent, are met.

Council shall be nominated as the only authority permitted to modify, vary or rescind such restriction as to user.

60 A Surveyors Certificate is to be lodged with the application for a Subdivision Certificate that certifies that all pipes and services are located wholly within the property or within appropriate easements and that no services encroach boundaries.

## Section 94

61 This condition is imposed in accordance with Penrith City Section 7.12 Citywide Development Contributions Plan for Non-Residential Development. Based on the current rates detailed in the accompanying schedule attached to this Notice, **\$243,085 is to be paid to Council prior to a Construction Certificate being issued** for this development (the rates are subject to quarterly reviews). If not paid within the current quarterly period, this contribution will be reviewed at the time of payment in accordance with the adopted Penrith City Section 7.12 Citywide Development Contributions Plan for Non-Residential Development.

Council should be contacted prior to payment to ascertain the rate for the current quarterly period. The S7.12 invoice accompanying this consent should accompany the contribution payment. The Penrith City Section 7.12 Citywide Development Contributions Plan for Non-Residential Development may be inspected at Council's Civic Centre, 601 High Street, Penrith.

**Note:** The timing of contributions payable may be otherwise affected in accordance with Planning Circular PS20-003 dated 3 July 2020 and the associated NSW Government Ministerial Direction - Infrastructure Contributions.

## Certification

62 An Occupation Certificate is to be obtained from the Principal Certifying Authority on completion of all works and prior to the occupation of the building/tenancy and commencement of the approved use. The Occupation Certificate shall not be issued if any conditions of this consent, but not the conditions relating to the operation of the development, are outstanding, and the development does not comply with the provisions of the Environmental Planning and Assessment Act and Regulation.

A copy of the Occupation Certificate and all necessary documentation supporting the issue of that Certificate including the above mentioned documents shall be submitted to Penrith City Council, if Council is not the Principal Certifying Authority.

63 A Subdivision Certificate is to be obtained prior to the release of the linen plan of subdivision. The Subdivision Certificate will not be issued if any of the conditions in this consent are outstanding.

64 Prior to the commencement of any earthworks or construction works on site, the proponent is to:

- (a) employ a Principal Certifying Authority to oversee that the said works carried out on the site are in accordance with the development consent and related Construction Certificate issued for the approved development, and with the relevant provisions of the Environmental Planning and Assessment Act and accompanying Regulation, and
- (b) submit a Notice of Commencement to Penrith City Council.

The Principal Certifying Authority shall submit to Council an "Appointment of Principal Certifying Authority" in accordance with Section 81A of the Environmental Planning and Assessment Act 1979.

### Information to accompany the Notice of Commencement

Two (2) days before any earthworks or construction/demolition works are to commence on site (including the clearing site vegetation), the proponent shall submit a "Notice of Commencement" to Council in accordance with Section 81A of the Environmental Planning and Assessment Act 1979.

## SIGNATURE

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Name:	Phillip Doy
Signature:	

For the Development Services Manager

# Appendix B

Relevant Consent Conditions DA 21/0440

## Appendix B: Development Consent DA21/0440

Relevant Consent Conditions DA21/0440	Where Addressed in OEMP
<b>PART A – ADMINISTRATIVE CONDITIONS</b>	
<b>General</b>	
<p>1. The development must be consistent with the stamped approved by Council, the application form and any supporting information received with the application, except as may be amended in red on the attached plans and by the following conditions.</p> <ul style="list-style-type: none"> <li>• Requirement to Update Air Quality Impact Assessment, prepared by SLR and dated 15 June, 2021,</li> <li>• Bushfire Risk Assessment, prepared by Blackash Bushfire Consulting and dated 14 June, 2021,</li> <li>• BCA Assessment report, prepared by Blackett Maguire and Goldsmith and dated 31 May, 2021,</li> <li>• Fire Safety Strategy, prepared by Core Engineering Group and dated 18 June, 2021,</li> <li>• Noise and Vibration Assessment, prepared by Wilkinson Murray and dated 18 June, 2021,</li> <li>• Sustainability Management Plan, prepared by SLR and dated 8 September, 2021,</li> <li>• Transport Assessment, prepared by Ason Group and dated 18 June, 2021,</li> <li>• Waste Management Plan, prepared by SLR and dated 15 June, 2021, and</li> <li>• Lot 3B Civil Report prepared by AT&amp;L and dated 31 May, 2021.</li> </ul>	Noted
2. The development shall not be used prior to being issued an Occupation Certificate.	Section 3.3
3. The approved operating hours are 24 hours a day, 7 days a week.	Section 2.3
4. All materials and goods associated with the use shall be contained within the building at all times.	Section 4.8
6. The finishes of the building are to be maintained at all times and any graffiti or vandalism immediately removed/repaired.	Section 4.8
9. The approved development, the subject of this development consent, is not to contravene the State Significant Development consent 7348 (as modified) or the relevant Planning Agreement. The onus is on the landowner and proponent to ensure that the SSD 7348 conditions and Planning Agreement obligations are met.	Section 3.3.3
10. The parking directory signage shall be located entirely within the proposed lot boundaries.	Section 4.8
11. The installation of the approved signage shall be carried out strictly in accordance with the manufacturer's specifications. Any wiring or installation fixtures associated with the signage or internal illumination shall be contained wholly within the body of the signage and not be visible from the public domain.	Section 4.8
13. In accordance with the recommendations of the urban design report endorsed by SSD 7348, no highlight colours, including the 'Goodman Green', should be used where they will be visible from sensitive receivers along the western elevation and no approval is granted to the installation of the Goodman signage visible from the sensitive receivers.	Section 4.8
<b>Environmental Matters</b>	

Relevant Consent Conditions DA21/0440	Where Addressed in OEMP
<p>14. Erosion and sediment control measures shall be installed prior to the commencement of works on site and be maintained in accordance with the approved erosion and sediment control plan(s) for the development and the Department of Housing's "Managing Urban Stormwater: Soils and Construction" 2004.</p> <p>The approved sediment and erosion control measures are to be installed prior to and maintained throughout the construction phase of the development until completion of this development (including vehicular access and parking areas and landscaping). These measures shall ensure that the mud and soil from vehicular movements to and from the site does not occur during the construction of the development.</p>	Section 4.5
<p>15. All excavated material and other construction wastes generated as a result of the development are to be re-used, recycled or disposed of in accordance with the approved waste management plan.</p> <p>Waste materials not specified in the approved waste management plan are to be disposed of at a lawful waste management facility. Where the disposal location or waste materials have not been identified in the waste management plan, details shall be provided to the Certifying Authority as part of the waste management documentation accompanying the Construction Certificate application. All receipts and supporting documentation must be retained in order to verify lawful disposal of materials and are to be made available to Penrith City Council on request.</p>	Section 4.6
<p>16. Noise levels from the premises (including all associated plant and equipment) shall not exceed the relevant noise criteria detailed in the '<i>Noise &amp; Vibration Assessment (RWDI # 2102730D)</i>' prepared by Wilkinson Murray and dated 9 August 2021. The recommendations provided in the Noise and Vibration assessment report shall be implemented and incorporated into the design, construction and operation of the development, and where relevant, shall be shown on plans accompanying the Construction Certificate application. A certificate is to be obtained from a qualified acoustic consultant certifying that the building (including all associated mechanical plant and ventilation) has been constructed to meet the noise criteria in accordance with the approved acoustic report. This certificate is to be submitted to the Principal Certifying Authority prior to the issue of an Occupation Certificate.</p> <p>The provisions of the Protection of the Environment Operations Act 1997 apply to the development, in terms of regulating offensive noise.</p>	Section 4.2
<p>17. Mud and soil from vehicular movements to and from the site must not be deposited on the road.</p>	Section 4.5
<b>BCA Issues</b>	

Relevant Consent Conditions DA21/0440	Where Addressed in OEMP
<p>23. All aspects of the building design shall comply with the applicable performance requirements of the Building Code of Australia so as to achieve and maintain acceptable standards of structural sufficiency, safety (including fire safety), health and amenity for the on-going benefit of the community. Compliance with the performance requirements can only be achieved by:</p> <p>(a) complying with the deemed to satisfy provisions, or  (b) formulating an alternative solution which:</p> <ul style="list-style-type: none"> <li>• complies with the performance requirements, or</li> <li>• is shown to be at least equivalent to the deemed to satisfy provision, or</li> </ul> <p>(c) a combination of (a) and (b).</p> <p>It is the owner's responsibility to place on display, in a prominent position within the building at all times, a copy of the latest fire safety schedule and fire safety certificate/statement for the building.</p>	Section 4.10
<b>Health Matters and OSSM installations</b>	
24. The rainwater tank must be maintained so as not to create a nuisance and it must be protected against mosquito infestation.	Section 4.2
Condition 31 re roof catchment area must be kept clear of overhanging vegetation	
<b>Engineering</b>	
<p>46. The stormwater management system shall continue to be operated and maintained in perpetuity for the life of the development in accordance with the final operation and maintenance management plan.</p> <p>Regular inspection records are required to be maintained and made available to Penrith City Council on request. All necessary improvements are required to be made immediately upon awareness of any deficiencies in the stormwater management systems.</p>	Section 4.5
<p>47. The car parking area for warehouse 3B shall have a minimum of three car parking spaces connected to an Electric Vehicle Charging Station (EVCS) and a minimum of four other car parking spaces shall be designed to be readily retrofitted to connect to an EVCS. The parking area for warehouse 3B2 car park shall have a minimum of two parking spaces connected to an EVCS and a minimum of three other car parking spaces shall be designed to be readily retrofitted to connect to an EVCS.</p> <p>The charging stations are to be designed to accommodate commercially available public vehicles and their required connector types (currently known as Type 1 and Type 2 connectors).</p> <p>The installed EVCS car parking spaces are to be signposted and marked for the use of electric vehicles only and are to be located as close as possible to the building. EVCS shall be free of charge to staff and visitors.</p>	Section 4.12
48. The required sight lines around the driveway entrances and exits shall not be compromised by street trees, landscaping or fencing.	Section 4.4
50. All vehicles shall enter and leave to site in a forward direction	Section 4.4
<b>Landscaping</b>	

Relevant Consent Conditions DA21/0440	Where Addressed in OEMP
<p>51. All landscape works are to be constructed in accordance with the stamped approved plans and Chapter C6 Landscape Design of Penrith Development Control Plan 2014.</p> <p>Lanscaping shall be maintained:</p> <ul style="list-style-type: none"> <li>• in accordance with the approved plan, and</li> <li>• in a healthy state, and in perpetuity by the existing or future owners and occupiers of the property.</li> </ul> <p>If any of the vegetation comprising that landscaping dies or is removed, it is to be replaced with vegetation of the same species and, to the greatest extent practicable, the same maturity as the vegetation which died or was removed.</p>	Section 4.8
<p>55. All landscape works are to meet industry best practice and the following relevant Australian Standards:</p> <ul style="list-style-type: none"> <li>• AS 4119 Soils for Landscaping and Garden Use,</li> <li>• AS 4454 Composts, Soil COnditioers and Mulches, and</li> <li>• AS 4273 Pruning of Amenity Trees.</li> </ul>	Section 4.8
<p>56. No trees are to be removed, ringbarked, cut, topped or lopped or wilfully destroyed (other than those within the proposed building footprint or as shown on the approved plans) without the prior consent of Penrith City Council and in accordance with State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017.</p>	Section 3.3.3
<p>62. An Occupation Certificate is to be obtained from the Principal Certifying Authority on completion of all worksand prior to the occupation of the building/tenancy and commencement of the approved use. The OccupationCertificate shall not be issued if any co nditions of this consent, but not the conditions relating to the operation of the development, are outstanding, and the development does not compl y with the provisions of the Environmental Planning and Assessment Act and Regulation.</p> <p>A copy of the Occupation Certificate and all necessary documentation supporting the i ssue of that Certificate including the above mentioned documents shall be submitted to Penrith Ci ty Council, if Council isnot the Principal Certifying Authority.</p>	Section 3.3.3

# Appendix C

## Relevant Consent Conditions – SSD 7348

### SSD 7348 Relevant Conditions

SSD 7348 OEMP Consent Condition	Section Addressed
<b>Schedule B – Conditions or the Concept Proposal</b>	
<b>FUTURE DEVELOPMENT APPLICATIONS</b>	
B1. In accordance with section 4.22 of the EP&A Act, each Stage of the Concept Proposal (excluding Stage 1) is to be subject to future development applications (DAs). Future DAs are to be consistent with this development consent.	DA 21/0440
B2. To avoid any doubt, this Concept Proposal consent does not permit the construction or operation of any Development, except for the Stage 1 DA covered by Schedule D.	Noted, as above
<b>STATUTORY REQUIREMENTS</b>	
B4. The Applicant shall ensure that all licences, permits, and approvals/consents are obtained as required by law and maintained as required throughout the life of the Concept Proposal. No condition of this consent removes the obligation for the Applicant to obtain, renew or comply with such licences, permits or approvals/consents.	Section 3.3.3
<b>TERMS OF CONSENT</b>	
B5. The Applicant shall carry out the Concept Proposal in accordance with the: (a) EIS and RTS; (b) the plans in Appendix 1 and Appendix 2; (c) SSD 7348 MOD 1; (d) the Applicant’s Management and Mitigation Measures in Appendix 7; and (e) modifications to this consent.	Noted
B6. If there is any inconsistency between the plans and documents referred to above, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this consent shall prevail to the extent of any inconsistency.	Noted
B7. The Applicant shall comply with any reasonable requirement(s) of the Planning Secretary arising from the Department’s assessment of: any reports, plans or correspondence that are submitted in accordance with this consent; and the implementation of any actions or measures contained within these reports, plans or correspondence.	Noted
<b>LIMITS OF CONSENT</b>	
B9. The following limits apply to the Concept Proposal: (a) the maximum GLA for the land uses in the Development shall not exceed the limits in Table 1 (of SSD 7348); (b) a minimum 60 metre (m) wide corridor along the northern Site boundary shall not be developed and shall be maintained and preserved for the future WSFL corridor, in accordance with the requirements of TfNSW; (c) the building layouts and footprints shown on Lots 3A, 3B, 3C, 3D, 3E, 3F, 3G and 4A on Figure 1 in Appendix 1, are not approved. The position, layouts and footprints of the buildings on these lots must be assessed by separate DAs, and must satisfy the interface requirements of Conditions C3 and C4;	Section 4.2 Noise Section 4.2 Noise Access to the site is no longer possible from Bakers Lane or Aldington Road following completion of the WNSLR

SSD 7348 OEMP Consent Condition	Section Addressed																																		
<p>(d) any rooftop mechanical plant on buildings on Lots 2C, 2D, 3A, 3B, 4A, 4B and 4E are not to be operated during the night-time period;</p> <p>(e) forklifts are not to operate during the night-time period on Lots 2C, 2D, 3B, 4A, 4E and; and</p> <p>(c) all traffic associate with operation of the Development shall use the West North South Link Road, and the future SLR, to access the site and shall not use Bakers Lane or Aldington Road.</p> <p><b>Table 1: GLA Maximum for Concept Proposal</b></p> <table border="1"> <tr> <td></td> <td></td> </tr> <tr> <td>Total Warehousing</td> <td>529,625</td> </tr> <tr> <td>Total Office</td> <td>22,720</td> </tr> <tr> <td>Oter</td> <td>4,429</td> </tr> <tr> <td>Total GLA</td> <td>556,824</td> </tr> </table> <p><i>Note: Other includes but is not limited to the skybridge, gatehouse, dangerous goods store and energy complex in Building 1A.</i></p>			Total Warehousing	529,625	Total Office	22,720	Oter	4,429	Total GLA	556,824																									
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<b>STAGING PLAN</b>																																			
<p>B16. The Applicant must: implement the most recent version of the Staging Plan approved by the Planning Secretary.</p>	Figure 2 Oakdale West Staging Plan																																		
<p>B17. The Planning Secretary may require the Applicant to address certain matters identified in the Staging Plan. The Applicant must comply with any such requirements of the Planning Secretary given as part of the Staging Plan approval.</p> <p><i>Notes: The Applicant may amend the Staging Plan as desired, with the approval of the Planning Secretary</i></p> <p><i>The Staging Plan is intended to broadly describe the development sequence for the Site and the delivery of infrastructure for all stages. It is not required to provide detailed design for latter Stages.</i></p>	Noted																																		
<b>NOISE LIMITS</b>																																			
<p>B18. The Applicant shall ensure the Development does not exceed the noise limits in Table 3 at the receiver locations N1, N2, N3, N4 and N5 shown on the plan in Appendix 5.</p> <p><b>Table 3: Noise Limits dB(A)</b></p> <table border="1"> <thead> <tr> <th rowspan="2">Location</th> <th>Day</th> <th>Evening</th> <th colspan="2">Night</th> </tr> <tr> <th>L<sub>Aeq</sub> (15 minute)</th> <th>L<sub>Aeq</sub> (15 minute)</th> <th>L<sub>Aeq</sub> (15 minute)</th> <th>L<sub>AMax</sub></th> </tr> </thead> <tbody> <tr> <td>N1 Emmaus Village Residential</td> <td>44</td> <td>43</td> <td>41</td> <td>52</td> </tr> <tr> <td>N3 Kemps Creek – nearest residential property</td> <td>39</td> <td>39</td> <td>37</td> <td>52</td> </tr> <tr> <td>N4 &amp; N5 Kemps Creek – other residences</td> <td>39</td> <td>39</td> <td>37</td> <td>52</td> </tr> <tr> <td>All other non-associated residences</td> <td>40<sup>2</sup></td> <td>35<sup>2</sup></td> <td>35<sup>2</sup></td> <td>52</td> </tr> <tr> <td>N2 Emmaus Catholic College (school)</td> <td colspan="4">When in use: 45 L<sub>eq</sub> (1h)</td> </tr> </tbody> </table> <p><i>Notes:</i></p>	Location	Day	Evening	Night		L <sub>Aeq</sub> (15 minute)	L <sub>Aeq</sub> (15 minute)	L <sub>Aeq</sub> (15 minute)	L <sub>AMax</sub>	N1 Emmaus Village Residential	44	43	41	52	N3 Kemps Creek – nearest residential property	39	39	37	52	N4 & N5 Kemps Creek – other residences	39	39	37	52	All other non-associated residences	40 <sup>2</sup>	35 <sup>2</sup>	35 <sup>2</sup>	52	N2 Emmaus Catholic College (school)	When in use: 45 L <sub>eq</sub> (1h)				Section 4.2 Noise
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SSD 7348 OEMP Consent Condition	Section Addressed
<p>1. Noise generated by the development is to be measured in accordance with the relevant procedures and modifications, including certain meteorological conditions, of the Noise Policy for Industry (EPA, 2017). Refer to the plan in Appendix 2 for the location of residential sensitive receivers.</p> <p>2. or background + 5 dB, whichever is higher.</p>	
<p>B19. The noise limits in Table 3 do not apply to receiver N3, N4 and N5 if the Applicant has a Noise Agreement with the relevant landowner to exceed the noise limits, and the Applicant has provided written evidence to the Planning Secretary that an agreement is in place.</p>	Section 4.2 Noise
<b>BUSHFIRE PROTECTION</b>	
<p>B20. The Applicant shall ensure the Development complies with:</p> <p>(a) the relevant provisions of <i>Planning for Bushfire Protection 2019</i>;</p> <p>(b) the construction standards and asset protection zone requirements recommended in the Oakdale Industrial Estate - West Bushfire Protection Assessment, prepared by Australian Bushfire Protection Planners Pty Ltd, dated September 2016 and updated 13 January 2020, and the SSD-7348 (MOD 6) Bushfire Hazard Assessment prepared by Blackash Bushfire Consulting, dated 12 November 2020; and</p> <p>(c) AS2419.1 – 2005 Fire Hydrant Installations for Firefighting Water Supply.</p>	<p>a) Section 4.10 Fire Safety and Emergency</p> <p>b) Section 4.10 Fire Safety and Emergency</p> <p>c) not relevant to operation</p>
<b>TRANSGRID EASEMENT</b>	
<p>B21. The Applicant must:</p> <p>(a) provide safe and unobstructed access for TransGrid plant and personnel to access the transmission towers, lines and easement on the Site, 24 hours a day, 7 days a week;</p> <p>(b) comply with the requirements of TransGrid for any works in the TransGrid easement; and</p> <p>(c) advise TransGrid of any proposed amended or modified encroachment into the easement.</p>	Section 4.10 Fire Safety and Emergency
<b>WATER NSW</b>	
<p>B23. The Applicant must:</p> <p>provide safe and unobstructed access for Water NSW plant and personnel to access the water pipelines corridor adjacent the Site, 24 hours a day, 7 days a week;</p> <p>comply with the requirements of Water NSW for any works adjacent to or over, the water pipelines corridor; and</p> <p>advise Water NSW of any proposed amended or modified encroachment into the water pipelines corridor.</p>	Noted
<b>SCHEDULE C – CONDITIONS FOR FUTURE DEVELOPMENT APPLICATIONS</b>	
<b>VISUAL AMENITY</b>	
<p><b>C5 Landscaping</b></p> <p>Future DAs shall be accompanied by a Landscape Assessment. The assessment must:</p> <p>(a) be prepared by a qualified landscape design consultant;</p> <p>(b) be prepared in consultation with Council;</p> <p>(c) describe how the landscaping for the relevant Stage of the Development is consistent with the Staging Plan approved in accordance with Condition B15;</p> <p>(d) describes the landscaping works to be completed as part of the relevant Stage of the Development and details a program for monitoring the success of landscaping works over time;</p>	<p>Relevant to operation:</p> <p>e) landscaping maintenance as per the LMP (Appendix L)</p> <p>See Section 4.8 Visual Amenity</p>

SSD 7348 OEMP Consent Condition	Section Addressed
<p>(e) assesses the condition of and adequacy of landscaping completed as part of earlier Stages of the Development, in providing visual screening for adjacent sensitive receivers; and</p> <p>(f) details any additional landscaping or rehabilitation works required to ensure the visual impacts of the Development are minimised for the adjacent sensitive receivers.</p>	
<p><b>C6. Outdoor lighting</b>            Future DAs must ensure compliance with AS/NZS 1158.3.1:2005 Pedestrian Area (Category P) Lighting and AS/NZS 4282:2019 Control of Obtrusive Effects of Outdoor Lighting.</p>	Section 4.8 Visual Amenity LMP (Appendix L)
<p><b>C7. Signage</b>            Future DAs must ensure illuminated signage is oriented away from the sensitive receivers on the western and southern Site boundaries.</p>	Section 4.8 Visual Amenity LMP (Appendix L)
<b>BUSHFIRE PROTECTION</b>	
<p>C12. The Applicant shall ensure future DAs comply with:</p> <p>(a) the relevant provisions of Planning for Bushfire Protection 2019;</p> <p>(b) the construction standards and asset protection zone requirements recommended in the Oakdale Industrial Estate - West Bushfire Protection Assessment, prepared by Australian Bushfire Protection Planners Pty Ltd, dated September 2016 and updated 13 January 2020, and the SSD-7348 (MOD 6) Bushfire Hazard Assessment prepared by Blackash Bushfire Consulting, dated 12 November 2020 ; and</p> <p>(c) AS2419.1 – 2005 Fire Hydrant Installations for firefighting water supply.</p>	<p>a) Section 4.10 Fire Safety and Emergency</p> <p>b) Section 4.10 Fire Safety and Emergency</p> <p>c) Completed</p>
<b>TRANSGRID EASEMENT</b>	
<p>C13. The Applicant must consult with TransGrid, prior to lodging DAs for Stages 4 and 5 of the Development as shown on Figure 2 in Appendix 1, and any other Stage or road infrastructure that may affect the TransGrid easement. The Applicant must design, construct and operate each Stage of the development in accordance with the reasonable requirements of TransGrid relating to their use of the TransGrid easement.</p>	Section 4.1 General
<b>WASTE</b>	
<p>C17. Future DAs shall include a Waste Management Plan prepared in accordance with the NSW Waste Classification Guidelines (DECCW, 2009).</p>	Section 4.6 Waste WMP (Appendix I)
<b>COMMUNITY COMMUNICATION STRATEGY</b>	
<p>C19. No later than one month before the commencement of construction of any stage of the Development, a Community Communication Strategy (CCS) must be prepared and submitted to the Planning Secretary for approval.</p> <p>The CCS is to provide mechanisms to facilitate communication between the Applicant, Council and the community (including adjoining affected landowners, schools, businesses, and others directly impacted by Stage 1), during design, construction and operation. The CCS must:</p> <p>(a) assign a central contact person to keep the nearby sensitive receivers regularly informed throughout the Development;</p> <p>(b) detail the mechanisms for regularly consulting with the local community throughout the Development, such as holding regular meetings to inform the community of the progress of the development and report on environmental monitoring results;</p>	Section 4.12 Community CCS (Appendix G)

SSD 7348 OEMP Consent Condition	Section Addressed
<p>(c) detail a procedure for consulting with nearby sensitive receivers to schedule high noise generating works, vibration intensive activities or manage traffic disruptions;</p> <p>(d) include contact details for key community groups, relevant regulatory authorities, Registered Aboriginal Parties and other interested stakeholders; and</p> <p>(e) include a complaints procedure for recording, responding to and managing complaints, including:</p> <p>(i) email, contact telephone number and postal addresses for receiving complaints;</p> <p>(ii) advertising the contact details for complaints before and during operation, via the local newspaper and through onsite signage;</p> <p>(iii) a complaints register to record the date, time and nature of the complaint, details of the complainant and any actions taken to address the complaint; and</p> <p>(iv) procedures for the resolution of any disputes that may arise during the course of the Development.</p>	
<p>C20. The Applicant must:</p> <p>(a) not commence construction of the relevant stage of the Concept Proposal until the CCS required under Condition C19 has been approved by the Planning Secretary; and</p> <p>(b) implement the CCS for each stage of the Concept Proposal and following the completion of operation of the Development.</p>	<p>(a) complete</p> <p>(b) Section 4.12 Community CCS (Appendix G)</p>
<b>SCHEDULE D – CONDITIONS FOR STAGE 1 DA</b>	
<b>PART 1 – GENERAL CONDITIONS</b>	
<b>TERMS OF CONSENT</b>	
<p>D2. Stage 1 of the Development may only be carried out:</p> <p>(a) in compliance with the conditions of this consent;</p> <p>(b) in accordance with all written directions of the Planning Secretary;</p> <p>(c) in accordance with the EIS and RTS;</p> <p>(d) in accordance with the plans in Appendix 2 and Appendix 3;</p> <p>(e) in accordance with SSD 7348 MOD 1;</p> <p>(f) in accordance with the Applicant’s Management and Mitigation Measures in Appendix 7; and</p> <p>(g) in accordance with modifications to this consent.</p>	<p>Section 3.3.2 SSD 7348</p>
<p>D3. Consistent with the requirements in this consent, the Planning Secretary may make written directions to the Applicant in relation to:</p> <p>the content of any strategy, study, system, plan, program, review, audit, notification, report or correspondence submitted under or otherwise made in relation to this consent, including those that are required to be, and have been, approved by the Planning Secretary; and</p> <p>the implementation of any actions or measures contained in any such document referred to in Condition D3(a).</p>	<p>Noted</p>
<p>D4. The conditions of this consent and directions of the Planning Secretary prevail to the extent of any inconsistency, ambiguity or conflict between them and a document listed in Condition D2(c). In the event of an inconsistency, ambiguity or conflict between any of the documents listed in Condition D2(c), the most recent document prevails to the extent of the inconsistency, ambiguity or conflict.</p>	<p>Section 3.3.2 SSD 7348</p>
<b>NOTIFICATION OF COMMENCEMENT</b>	

SSD 7348 OEMP Consent Condition	Section Addressed
<p>D8. The date of commencement of each of the following phases of Stage 1 must be notified to the Department in writing, at least one month before that date, or otherwise agreed with the Planning Secretary:</p> <p>construction; and operation.</p>	Noted
<p>D9. If the construction or operation of Stage 1 is to be delivered in sub-stages, the Department must be notified in writing at least one month before the commencement of each sub-stage, of the date of commencement and the works to be carried out in that sub-stage.</p>	Section 1.2.4 Consultation
<b>STAGING, COMBINING AND UPDATING STRATEGIES, PLANS OR PROGRAMS</b>	
<p>D11. With the approval of the Planning Secretary, the Applicant may:</p> <p>(a) prepare and submit any strategy, plan or program required by this consent on a staged basis (if a clear description is provided as to the specific stage and scope of the development to which the strategy, plan or program applies, the relationship of the stage to any future stages and the trigger for updating the strategy, plan or program);</p> <p>(b) combine any strategy, plan or program required by this consent (if a clear relationship is demonstrated between the strategies, plans or programs that are proposed to be combined); and</p> <p>(c) update any strategy, plan or program required by this consent (to ensure the strategies, plans and programs required under this consent are updated on a regular basis and incorporate additional measures or amendments to improve the environmental performance of the development).</p>	<p>Noted</p> <p>Noted</p>
<p>D12. If the Planning Secretary agrees, a strategy, plan or program may be staged or updated without consultation being undertaken with all parties required to be consulted in the relevant condition in this consent</p>	Section 7 Review
<p>D13. If approved by the Planning Secretary, updated strategies, plans or programs supersede the previous versions of them and must be implemented in accordance with the condition that requires the strategy, plan or program.</p>	Noted
<b>COMPLIANCE</b>	
<p>D19. The Applicant must ensure that all of its employees, contractors (and their sub-contractors) are made aware of, and are instructed to comply with, the conditions of this consent relevant to activities they carry out in respect of Stage 1.</p>	Noted
<b>OPERATION OF PLANT AND EQUIPMENT</b>	
<p>D21. All plant and equipment used on site, or to monitor the performance of Stage 1 must be:</p> <p>maintained in a proper and efficient condition; and operated in a proper and efficient manner.</p>	Section 4.2 Noise
<b>TRANSGRID EASEMENT</b>	
<p>D30. The Applicant must:</p> <p>provide safe and unobstructed access for TransGrid plant and personnel to access the transmission towers, lines and easement on the Site, 24 hours a day, 7 days a week;</p> <p>comply with the requirements of TransGrid for any works in the TransGrid easement on the Site; and</p> <p>advise TransGrid of any proposed amended or modified encroachment into the easement.</p>	Section 4.1 General Management Conditions

SSD 7348 OEMP Consent Condition	Section Addressed
<b>APPLICABILITY OF GUIDELINES</b>	
D33. References in the conditions of this consent to any guideline, protocol, Australian Standard or policy are to such guidelines, protocols, Standards or policies in the form they are in as at the date of this consent.	Noted
D34. However, consistent with the conditions of this consent and without altering any limits or criteria in this consent, the Planning Secretary may, when issuing directions under this consent in respect of ongoing monitoring and management obligations, require compliance with an updated or revised version of such a guideline, protocol, Standard or policy, or a replacement of them.	Noted
<b>PART 2 – ENVIRONMENTAL PERFORMANCE CONDITIONS</b>	
<b>VISUAL AMENITY</b>	
<b>Lighting and Security Cameras</b> D40. The Applicant must ensure the lighting associated with Stage 1: complies with the latest version of <i>AS 4282-1997 - Control of the obtrusive effects of outdoor lighting</i> (Standards Australia, 1997); and is mounted, screened and directed in such a manner that it does not create a nuisance to surrounding properties or the public road network.	Section 4.8 Visual Amenity
D41. The Applicant must ensure any security cameras installed as part of Stage 1 are directed away from adjacent private properties.	Section 4.8 Visual Amenity
<b>Signage and Fencing</b> D43. All signage and fencing must be erected in accordance with the plans in the RtS.	Section 4.8 Visual Amenity LMP (Appendix L)
<b>TRANSPORT, ACCESS AND PARKING</b>	
<b>Operating Conditions</b> D69. The Applicant must ensure: internal roads, driveways and parking (including grades, turn paths, sight distance requirements, aisle widths, aisle lengths and parking bay dimensions) are constructed and maintained in accordance with the latest version of <i>AS 2890.1:2004 Parking facilities Off-street car parking</i> (Standards Australia, 2004) and <i>AS 2890.2:2002 Parking facilities Off-street commercial vehicle facilities</i> (Standards Australia, 2002); parking for Stage 1 is provided in accordance with the EIS and RtS for MOD 5; the swept path of the longest vehicle entering and exiting the site, as well as manoeuvrability through the site, is in accordance with the relevant Austroads guidelines; Stage 1 does not result in any vehicles queuing on the public road network; heavy vehicles associated with Stage 1 are not parked on local roads or footpaths in the vicinity of the Site; all vehicles are wholly contained on site before being required to stop; all loading and unloading of materials are carried out on Site; all trucks entering or leaving the Site with loads have their loads covered and do not track dirt onto the public road network; and the proposed turning areas in the car parks are kept clear of any obstacles, including parked cars, at all times.	Section 4.4 Traffic
<b>Operational Traffic Management Plan</b>	Section 1.2.4

SSD 7348 OEMP Consent Condition	Section Addressed						
<p>D69A. The Applicant must prepare an Operational Traffic Management Plan (OTMP) for Stage 1. The OTMP must form part of the OEMP required by condition D130 and must:</p> <ul style="list-style-type: none"> <li>be prepared by a suitably qualified and experienced expert, in consultation with Council and TfNSW;</li> <li>detail the numbers and frequency of truck movements, sizes of trucks, vehicle routes and hours of operation;</li> <li>include measures to maintain road safety and network efficiency;</li> <li>detail measures to minimise traffic noise, including procedures for receiving and addressing complaints from the community about Stage 1 related traffic and noise;</li> <li>include a Driver’s Code of Conduct that addresses: <ul style="list-style-type: none"> <li>travelling speeds and adherence to site-specific speed limits;</li> <li>procedures to ensure drivers adhere to designated heavy vehicle routes; and</li> <li>procedures to ensure drivers implement safe driving practices.</li> </ul> </li> </ul>	OTMP (Appendix E)						
<p>D69B. The Applicant must:</p> <ul style="list-style-type: none"> <li>not commence operation of Stage 1 until the OTMP required by condition D69A is approved by the Planning Secretary; and</li> <li>implement the most recent version of the OTMP approved by the Planning Secretary for the duration of operation.</li> </ul>	Noted						
<b>NOISE</b>							
<p><b>Hours of Work</b></p> <p>D70. The Applicant must comply with the hours detailed in Table 5, unless otherwise agreed in writing by the Planning Secretary.</p> <p style="text-align: center;"><b>Table 5: Hours of Work</b></p> <table border="1"> <thead> <tr> <th>Activity</th> <th>Day</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>Operation</td> <td>Monday – Sunday (including public holidays)</td> <td>24 hours</td> </tr> </tbody> </table>	Activity	Day	Time	Operation	Monday – Sunday (including public holidays)	24 hours	Section 2.3 Hours of Operation
Activity	Day	Time					
Operation	Monday – Sunday (including public holidays)	24 hours					
<p><b>Operational Noise Limits</b></p> <p>D75. The Applicant shall undertake operation of Stage 1 in a manner that ensures the Development complies with the noise limits for the Concept Proposal in Condition B18 of this consent.</p>	Section 4.2 Noise						
<p><b>Noise Verification</b></p> <p>D75B. Within three months of commencing operation of any buildings on the site, the Applicant must prepare a noise verification report, to the satisfaction of the Planning Secretary. The noise verification report must:</p> <ul style="list-style-type: none"> <li>(a) be prepared by an appropriately qualified and experienced noise expert;</li> <li>(b) describe the noise monitoring undertaken to verify the effectiveness of the noise barrier;</li> <li>(c) demonstrate compliance with the noise limits in Condition B18; and</li> <li>(d) if required, recommend, prioritise and implement measures to improve noise controls to ensure the development meets the noise limits in Condition B18.</li> <li>(e) include monitoring during the night-time to confirm the development complies with the sleep disturbance limits in Condition B18.</li> </ul>	Section 5 Monitoring, Reporting and Auditing						
<b>SOILS &amp; WATER</b>							

SSD 7348 OEMP Consent Condition	Section Addressed
<p><b>Discharge Limits</b></p> <p>D82. Stage 1 must comply with section 120 of the POEO Act, which prohibits the pollution of waters.</p>	Section 4.5 Soil and Water
<p><b>Stormwater Management System</b></p> <p>D83. The Applicant must design, construct and operate a stormwater management system for Stage 1 that:</p> <ul style="list-style-type: none"> <li>is designed by a suitably qualified and experienced person(s);</li> <li>is generally in accordance with the conceptual design in the RtS;</li> <li>is in accordance with applicable Australian Standards;</li> <li>ensures the system capacity is designed in accordance with Australian Rainfall and Runoff (Engineers Australia, 2016), Managing Urban Stormwater: Council Handbook (EPA, 1997) and Stormwater Drainage Specifications for Building Development (Penrith Council, May 2018);</li> <li>ensures peak stormwater flows from the Site do not exceed pre-development flows in any downstream areas for all rainfall events up to and including the 1 in 100-year average recurrence interval (ARI);</li> <li>ensures peak stormwater flows from the Site do not exceed existing flows in the Water NSW drainage lines and water pipelines corridor; and</li> <li>achieves the pollutant reduction targets specified in Council’s Water Sensitive Urban Design (WSUD) Policy, (December 2013).</li> </ul>	Section 4.5 Soil and Water
<p>D84. All stormwater drainage infrastructure on the Site, including bio-retention basins, shall remain under the care, control and ownership of the registered proprietor of the lots.</p>	Section 4.5 Soil and Water
<b>BUSHFIRE PROTECTION</b>	
<p>D97. The Applicant shall ensure the Development complies with:</p> <ul style="list-style-type: none"> <li>(a) the relevant provisions of <i>Planning for Bushfire Protection 2019</i>;</li> <li>(b) the construction standards and asset protection zone requirements recommended in the Oakdale Industrial Estate - West Bushfire Protection Assessment, prepared by Australian Bushfire Protection Planners Pty Ltd, dated September 2016 and updated 13 January 2020, and the SSD-7348 (MOD 6) Bushfire Hazard Assessment prepared by Blackash Bushfire Consulting, dated 12 November 2020; and</li> <li>(c) <i>AS2419.1 – 2005 Fire Hydrant Installations for firefighting water supply</i>.</li> </ul>	Section 4.10 Fire Safety and Emergency
<b>AIR QUALITY</b>	
<p><b>Dust Minimisation</b></p> <p>D98. The Applicant must take all reasonable steps to minimise dust generated during all works authorised by this consent.</p>	Section 4.3 Air Quality
<p><b>Odour Management</b></p> <p>D102. The Applicant must ensure Stage 1 does not cause or permit the emission of any offensive odour, as defined in the POEO Act.</p>	Section 4.3 Air Quality
<b>HAZARDS AND RISK</b>	
<p><b>Bunding</b></p> <p>D110. The Applicant must store all chemicals, fuels and oils used on Site in appropriately banded areas in accordance with the requirements of all relevant Australian Standards, and/or EPA’s <i>Storing and Handling of Liquids: Environmental Protection – Participants Manual</i> (Department of Environment and Climate Change, 2007).</p>	Section 4.9 Hazardous Goods and Contamination
<b>WASTE MANAGEMENT</b>	

SSD 7348 OEMP Consent Condition	Section Addressed
<p><b>Waste Storage</b></p> <p>D111. Waste must be secured and maintained within designated waste storage areas at all times and must not leave the Site onto neighbouring public or private properties.</p>	Section 4.6 Waste
<p><b>Waste Management Plan</b></p> <p>D112. The Applicant must implement the Waste Management Plan (WMP) in the EIS for the duration of construction and operation of Stage 1.</p>	Section 4.6 Waste
<p><b>Statutory Requirements</b></p> <p>D113. The Applicant must assess and classify all liquid and non-liquid wastes to be taken off Site in accordance with the latest version of EPA's <i>Waste Classification Guidelines Part 1: Classifying Waste</i> (EPA, 2014) and dispose of all wastes to a facility that may lawfully accept the waste.</p>	Section 4.6 Waste
<p>D114. Waste generated outside the Site must not be received at the Site for storage, treatment, processing, reprocessing, or disposal.</p>	Section 4.6 Waste
<p><b>Pests, Vermin and Noxious Weed Management</b></p> <p>D115. The Applicant must:  implement suitable measures to manage pests, vermin and declared noxious weeds on the Site; and  inspect the Site on a regular basis to ensure that these measures are working effectively, and that pests, vermin or noxious weeds are not present on Site in sufficient numbers to pose an environmental hazard or cause the loss of amenity in the surrounding area.</p>	Section 5 Monitoring, Reporting and Auditing
<b>COMMUNITY CONSULTATION</b>	
<p>D117. The Applicant must consult with the community regularly throughout Stage 1, including consultation with the nearby sensitive receivers identified in Appendix 5, relevant regulatory authorities, Registered Aboriginal Parties and other interested stakeholders. Community engagement shall be undertaken in accordance with the Community Communication Strategy approved in accordance with Condition C19.</p>	Section 4.12 Community CCS Appendix G
<b>PART 3 – ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING</b>	
<b>MANAGEMENT PLAN REQUIREMENTS</b>	
<p>D118. Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:</p> <p>(a) details of:  the relevant statutory requirements (including any relevant approval, licence or lease conditions);  any relevant limits or performance measures and criteria; and  the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, Stage 1 or any management measures;</p> <p>(b) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;</p> <p>(c) a program to monitor and report on the:  impacts and environmental performance of Stage 1; and  effectiveness of the management measures set out pursuant to paragraph (b) above;</p>	Section 1.2.1 Scope, Table 1

SSD 7348 OEMP Consent Condition	Section Addressed
<p>(d) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;</p> <p>(e) a program to investigate and implement ways to improve the environmental performance of Stage 1 over time;</p> <p>(f) a protocol for managing and reporting any: incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria); complaint; failure to comply with statutory requirements; and</p> <p>(g) a protocol for periodic review of the plan.</p> <p><i>Note: The Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.</i></p>	
<b>OPERATIONAL ENVIRONMENTAL MANAGEMENT PLAN</b>	
<p>D130. The Applicant must prepare an Operational Environmental Management Plan (OEMP) in accordance with the requirements of Condition D118 and to the satisfaction of the Planning Secretary.</p>	Section 1.2.1 Scope
<p>D131. As part of the OEMP required under Condition D130 of this consent, the Applicant must include the following:</p> <p>describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of operation of Stage 1;</p> <p>describe the procedures that would be implemented to:</p> <p>keep the local community and relevant agencies informed about the operation and environmental performance of Stage 1;</p> <p>receive, handle, respond to, and record complaints;</p> <p>resolve any disputes that may arise;</p> <p>respond to any non-compliance;</p> <p>respond to emergencies; and</p> <p>include the following environmental management plans:</p> <p>Landscape Management Plan (LMP) (see Condition D35);</p> <p>Flora and Fauna Management Plan (FFMP) (see Condition D88);</p> <p>(Waste Management Plan (WMP) (see Condition D112).</p>	Section 1.2.1 Scope
<p>D132. The Applicant must:</p> <p>not commence operation until the OEMP is approved by the Planning Secretary; and</p> <p>operate Stage 1 in accordance with the OEMP approved by the Planning Secretary (and as revised and approved by the Planning Secretary from time to time).</p>	Section 1.2.1 Scope
<b>REVISION OF STRATEGIES, PLANS AND PROGRAMS</b>	
<p>D133. Within three months of:</p> <p>(a) the submission of a Compliance Report under Condition D141;</p> <p>(b) the submission of an Environmental Representative Monthly Report under Condition D127;</p> <p>(c) the submission of an incident report under Condition D135;</p> <p>(d) the approval of any modification of the conditions of this consent; or</p> <p>(e) the issue of a direction of the Planning Secretary under Condition D2(b) which requires a review,</p>	Section 7 Review

SSD 7348 OEMP Consent Condition	Section Addressed
the strategies, plans and programs required under this consent must be reviewed.	
<p>D134. If necessary, to either improve the environmental performance of Stage 1, cater for a modification or comply with a direction, the strategies, plans and programs required under this consent must be revised, to the satisfaction of the Planning Secretary. Where revisions are required, the revised document must be submitted to the Planning Secretary for approval within six weeks of the review.</p> <p><i>Note: This is to ensure strategies, plans and programs are updated on a regular basis and to incorporate any recommended measures to improve the environmental performance of Stage 1.</i></p>	Section 7 Review
<b>REPORTING AND AUDITING</b>	
<p><b>Incident Notification, Reporting and Response</b></p> <p>D135. The Department must be notified in writing to <a href="mailto:compliance@planning.nsw.gov.au">compliance@planning.nsw.gov.au</a> immediately after the Applicant becomes aware of an incident. The notification must identify the development (including the development application number and the name of the development if it has one) and set out the location and nature of the incident. Subsequent notification requirements must be given, and reports submitted in accordance with the requirements set out in Appendix 8.</p>	Section 3.5 Incident and Non-Compliance Response and Handling Procedure
<p><b>Non-Compliance Notification</b></p> <p>D136. The Department must be notified in writing to <a href="mailto:compliance@planning.nsw.gov.au">compliance@planning.nsw.gov.au</a> within seven (7) days after the Applicant becomes aware of any non-compliance.</p>	Section 3.5 Incident and Non-Compliance Response and Handling Procedure
<p>D137. A non-compliance notification must identify the development and the application number for it, set out the condition of consent that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.</p>	Section 3.5 Incident and Non-Compliance Response and Handling Procedure
<p>D138. A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.</p>	Section 3.5 Incident and Non-Compliance Response and Handling Procedure
<p><b>Compliance Reporting</b></p> <p>D139. No later than 6 weeks before the date notified for the commencement of construction, a Compliance Monitoring and Reporting Program prepared in accordance with the Compliance Reporting Post Approval Requirements (Department 2018) must be submitted to the Department.</p>	Section 5 Monitoring, Reporting and Auditing
<p>D140. Compliance Reports of the Development must be carried out in accordance with the Compliance Reporting Post Approval Requirements (Department 2018).</p>	Section 5 Monitoring, Reporting and Auditing
<p>D141. The Applicant must make each Compliance Report publicly available no later than 60 days after submitting it to the Department and notify the Department in writing at least 7 days before this is done.</p>	<p>Section 3.5 Incident and Non-Compliance Response and Handling Procedure</p> <p>Section 5 Monitoring, Reporting and Auditing</p>
<p><b>Monitoring and Environmental Audits</b></p>	Section 5 Monitoring, Reporting and Auditing

SSD 7348 OEMP Consent Condition	Section Addressed
<p>D142. Any condition of this consent that requires the carrying out of monitoring or an environmental audit, whether directly or by way of a plan, strategy or program, is taken to be a condition requiring monitoring or an environmental audit under Division 9.4 of Part 9 of the EP&amp;A Act. This includes conditions in respect of incident notification, reporting and response, non-compliance notification, compliance reporting and independent auditing.</p> <p><i>Note: For the purposes of this condition, as set out in the EP&amp;A Act, “monitoring” is monitoring of the development to provide data on compliance with the consent or on the environmental impact of the development, and an “environmental audit” is a periodic or particular documented evaluation of the development to provide information on compliance with the consent or the environmental management or impact of the development.</i></p>	
<b>ACCESS TO INFORMATION</b>	
<p>D143. At least 48 hours before the commencement of construction until the completion of all works under this consent, the Applicant must: make the following information and documents (as they are obtained or approved) publicly available on its website:</p> <ul style="list-style-type: none"> <li>(i) the documents referred to in Condition D2 of this consent;</li> <li>(ii) all current statutory approvals for the Development;</li> <li>(iii) all approved strategies, plans and programs required under the conditions of this consent;</li> <li>(iv) the proposed staging plans for the Development if the construction, operation or decommissioning of the Development is to be staged;</li> <li>(v) regular reporting on the environmental performance of the Development in accordance with the reporting requirements in any plans or programs approved under the conditions of this consent;</li> <li>(vi) a comprehensive summary of the monitoring results of the Development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs;</li> <li>(vii) a summary of the current stage and progress of the Development;</li> <li>(viii) contact details to enquire about the Development or to make a complaint;</li> <li>(ix) a complaints register, updated monthly;</li> <li>(x) the Compliance Report of the Development;</li> <li>(xi) audit reports prepared as part of any monitoring or environmental audit of the Development and the Applicant’s response to the recommendations in any audit report;</li> <li>(xii) any other matter required by the Planning Secretary; and</li> </ul> <p>keep such information up to date, to the satisfaction of the Planning Secretary.</p>	Section 5 Monitoring, Reporting and Auditing
<b>APPENDIX 7 - APPLICANT’S MANAGEMENT AND MITIGATION MEASURES</b>	
<b>Operational Management</b>	
<p><b>General Operational Management</b></p> <p>An OEMP to be prepared for the OWE capturing standard and specific operational management and mitigation measures as described in the SSDA, EIS and supporting technical documents.</p>	This OEMP
<b>Urban Design and Visual</b>	
<p><b>Visual Impact</b></p> <p>Landscaping of key interfaces including the western boundary to minimise visual impact.</p>	Section 4.8 Visual Amenity LMP (Appendix L)
<b>Soils and Water</b>	

SSD 7348 OEMP Consent Condition	Section Addressed
<p><b>Mineral Resources</b></p> <p>No mitigation required provided that mining activities under the existing mining lease applying to land to the east of the site (ref. ML1636) would not be constrained by the OWE development.</p>	Noted
<b>Infrastructure</b>	
<p><b>Capacity and Upgrades</b></p> <p>Management of issues in respect of infrastructure capacity and upgrades is in the form of design responses described in Section 4.0 of the EIS.</p>	Noted
<p><b>Delivery and Staging</b></p> <p>Staging of development of the OWE would be aligned with infrastructure and services delivery.</p>	Section 1.1 Development Overview
<p><b>TransGrid Easement</b></p> <p>Further consultation would be undertaken with TransGrid in relation to potential impacts and required mitigation.</p>	Noted
<b>Other Environmental Issues</b>	
<p><b>Flora and Fauna</b></p> <p>Preparation of a Flora and Fauna Management Plan for the site to inform the CEMP and OEMP as relevant to manage potential impacts to biodiversity during construction and operation.</p>	Section 4.7 Biodiversity FFMP (Appendix J)
<p>Retained areas of native vegetation, including the Ropes Creek riparian corridor, will be rehabilitated and/or restored in accordance with the Vegetation Management Plan</p>	Section 4.7 Biodiversity VMP (Appendix K)
<p>Other areas of the site including road batters, embankments and bio-retention basins will be planted with native plant species and turf species as specified in the Landscape Planting Schedule.</p>	Section 4.7 Biodiversity VMP (Appendix K)
<p>Ongoing maintenance and management of these areas in accordance with the provisions of both the Vegetation Management Plan and Landscape Management Plan.</p>	Section 4.7 Biodiversity FFMP (Appendix J) VMP (Appendix K)
<p><b>Waterways and Riparian Lands</b></p> <p>Restoration and ongoing management of Ropes riparian corridor to be in accordance with the Vegetation Management Plan.</p>	Section 4.7 Biodiversity VMP (Appendix K)

# Appendix D

## Consultation

# Penrith City Council

## Operational Traffic Management Plan

RE: Oakdale West - Estate Framework OTMP and the site specific OTMP for Building 2B

 Alasdair Cameron <Alasdair.Cameron@goodman.com>  
To:  Stephen Masters  
Cc:  Lachlan O'Reilly

[Click here to download pictures.](#) To help protect your privacy, Outlook prevented automatic download of some pictures in this message.

Many thanks Steve,  
We will update the plans to correct the errors and submit to the department.  
Many thanks for your input.

Regards  
Alasdair

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**From:** Stephen Masters <[stephen.masters@penrith.city](mailto:stephen.masters@penrith.city)>  
**Sent:** Tuesday, 17 August 2021 11:34 PM  
**To:** Alasdair Cameron <[Alasdair.Cameron@goodman.com](mailto:Alasdair.Cameron@goodman.com)>  
**Subject:** Oakdale West - Estate Framework OTMP and the site specific OTMP for Building 2B

Hi Alasdair,

I have reviewed both the Estate Framework OTMP and the site specific OTMP for Building 2B and can advise that they are generally acceptable to Council however there are a number of typos within the documents that relate to the Oakdale South Estate (e.g access to the estate, bus routes, Otella Road etc). I have highlighted some of the text in the attached documents. May I request that the operational plans be updated to reflect the Oakdale West Industrial Estate.

Please telephone me tomorrow to discuss.

Regards

**Stephen Masters**  
Senior Engineer – Major Developments

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Wed 18-Aug-2021 11:48 AM

# Transport for New South Wales

## Operational Traffic Management Plan

RE: Oakdale West Estate Stage 2 Development SSD 10397 Operational Traffic Management Plan Consultation.



Alasdair Cameron <Alasdair.Cameron@goodman.com>  
To:  Raymond Tran  
Cc:  Pahee Rathan;  Malgy Coman;  Stephanie Partridge;  Lachlan O'Reilly;  Luke Ridley;  Kym Dracopoulos

Raymond,  
Many thanks for your response, duly noted.

Regards  
Alasdair

---

**From:** Raymond Tran <[Raymond.TRAN@transport.nsw.gov.au](mailto:Raymond.TRAN@transport.nsw.gov.au)>  
**Sent:** Thursday, 5 August 2021 1:39 PM  
**To:** Alasdair Cameron <[Alasdair.Cameron@goodman.com](mailto:Alasdair.Cameron@goodman.com)>  
**Subject:** RE: Oakdale West Estate Stage 2 Development SSD 10397 Operational Traffic Management Plan Consultation.

Dear Alasdair

Please see following comment from Transport for NSW (Network & Safety Services):

- Any posted speed signage within the site (private roads) should not replicate the design and appearance of the regulatory speed limit signage (a number within the red circle).

Kind regards,

Raymond Tran  
Network & Safety Officer  
Western Parkland City  
Network and Asset Management  
Transport for NSW

T 02 8843 3133  
Level 5, 27 Argyle Street Parramatta NSW 2150



---

**From:** Alasdair Cameron  
**Sent:** Friday, 16 July 2021 8:29 AM  
**To:** Pahee Rathan <Pahee.RATHAN@transport.nsw.gov.au>  
**Cc:** Kym Dracopoulos <Kym.Dracopoulos@goodman.com>; Luke Ridley <Luke.Ridley@goodman.com>; Lachlan O'Reilly <Lachlan.OReilly@goodman.com>  
**Subject:** Oakdale West Industrial Estate- Operational Traffic Management Plan Consultation.

Dear Pahee,

We're hoping to commence the operational phase at Oakdale West soon.

Condition D69a of consent for SSD7348 (Oakdale West) requires us to consult with TfNSW on the Operational Traffic Management Plan (OTMP) prior to the operational stage of development:

**Operational Traffic Management Plan**

D69A The Applicant must prepare an Operational Traffic Management Plan (OTMP) for Stage 1. The OTMP must form part of the OEMP required by condition D130 and must:

- (a) be prepared by a suitably qualified and experienced expert, in consultation with Council and TfNSW;
- (b) detail the numbers and frequency of truck movements, sizes of trucks, vehicle routes and hours of operation;
- (c) include measures to maintain road safety and network efficiency;
- (d) detail measures to minimise traffic noise, including procedures for receiving and addressing complaints from the community about Stage 1 related traffic and noise;
- (e) include a Driver's Code of Conduct that addresses:
  - (i) travelling speeds and adherence to site-specific speed limits;
  - (ii) procedures to ensure drivers adhere to designated heavy vehicle routes; and
  - (iii) procedures to ensure drivers implement safe driving practices.

We'd therefore be grateful if you're able to review the OTMP (see attached) and provide us any comments you may have. A 'no comment' response would satisfy the consultation requirements if you have no feedback.

We would be extremely grateful if you provide this proof of consultation no later than **23 July 2021**  
Please let me know if you have any questions. Thank you for your help.

Regards  
Alasdair

# Appendix E

## Operational Traffic Management Plan



# **Operational Traffic Management Plan**

## Oakdale West Estate – Framework Traffic Management Plan

Oakdale West Precinct

1/09/2022

1507r02v8

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## Document Control

<b>Project No</b>	1507r02v8
<b>Project</b>	Oakdale West Precinct-wide Operational Traffic Management Plan
<b>Client</b>	Goodman Property Services (Aust) Pty Ltd
<b>File Reference</b>	1507r02v8 Framework OTMP Oakdale West Estate

## Revision History

Revision No.	Date	Details	Author	Approved by
-	25/03/2021	Draft	J. Laidler	
Issue I	22/06/2021	Issue I	J. Laidler	J. Laidler
Issue II	13/07/2021	Issue II	J. Laidler	J. Laidler
Issue III	18/08/2021	Issue III	J. Laidler	J. Laidler
Issue IV	28/02/2022	Issue IV	J. Laidler	J. Laidler
Issue IV	01/03/2022	Issue V	J. Laidler	J. Laidler
Issue V	22/04/2022	Issue VI	J. Laidler	J. Laidler
Issue VI	02/08/2022	Issue VII	M. Dizon Jr	J. Laidler
Issue VII	01/09/2022	Issue VII	M. Dizon Jr	J. Laidler

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# Glossary

Acronym	Description
AGRD	Austrroads Guide to Road Design
AGTM	Austrroads Guide to Traffic Management
CC	Construction Certificate
Compass Drive	Previously known as the Western North South Link Road (WNSLR)
Council	Penrith Council
DA	Development Application
DCP	Development Control Plan
DoS	Degree of Saturation
DPIE	Department of Planning, Industry and Environment
FSR	Floor space ratio
GFA	Gross Floor Area
HRV	Heavy Rigid Vehicle (as defined by AS2890.2:2018)
LEP	Local Environmental Plan
LGA	Local Government Area
LoS	Level of Service
MOD	Section 4.55 Modification (also referred as a S4.55)
MRV	Medium Rigid Vehicle (as defined by AS2890.2:2018)
NHVR	National Heavy Vehicle Regulator
OC	Occupation Certificate
RMS Guide	Transport for NSW (formerly Roads and Traffic Authority), Guide to Traffic Generating Developments, 2002
S4.55	Section 4.55 Modification (also referenced as MOD)
S96	Section 96 Modification (former process terminology for an S4.55)
SRV	Small Rigid Vehicle (as defined by AS2890.2:2018)
TDT 2013/04a	TfNSW Technical Direction, Guide to Traffic Generating Developments – Updated traffic surveys, August 2013
TfNSW	Transport for New South Wales
TIA	Transport Impact Assessment
TIS	Transport Impact Statement
veh/hr	Vehicle movements per hour (1 vehicle in & out = 2 movements)
WNSLR	Western North South Link Road (Refer also Compass Drive)

# 1 Introduction

## 1.1 Overview

Ason Group has been engaged by Goodman Property Services (Aust) Pty Ltd to prepare an Operational Traffic Management Plan (OTMP) in relation to Oakdale West Estate (OWE, or the Estate). This overarching Framework OTMP relates to the broader OWE precinct, with supplementary OTMPs for individual lots, as required, by relevant conditions of consent.

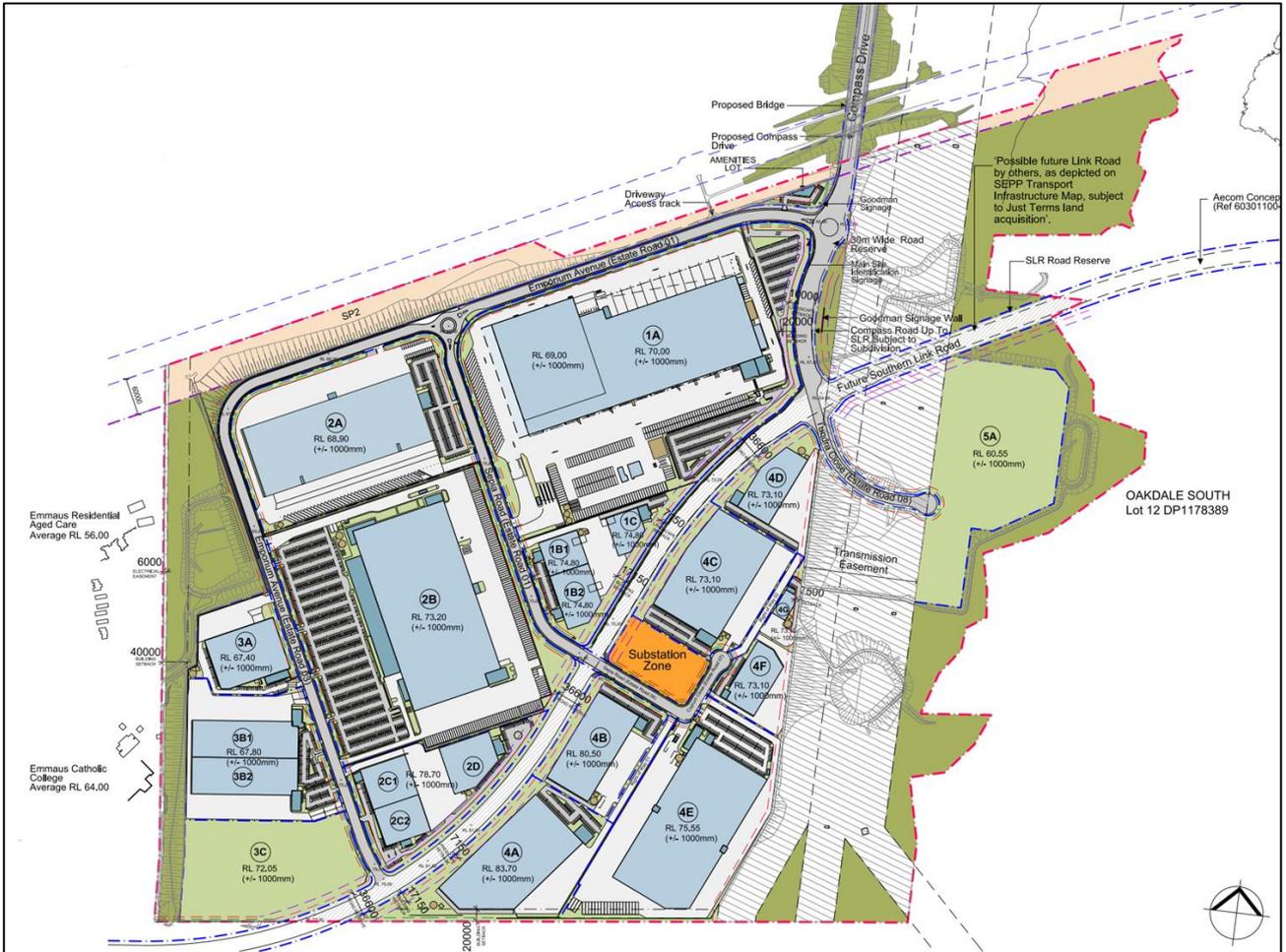


Figure 1: Oakdale West Estate (MOD 10)

This OTMP is in response to Condition D69A (and in response to D130) of the Concept Plan for the State Significant Development (SSD 7348), dated 10 March 2021, and subsequently the OEMP Stage 1 plan, dated 10 September 2021. Following this, SSD 7348-Mod-10 has received approval on 17 August 2022. **Table 1** outlines these conditions.

**TABLE 1 CONDITION OF CONSENT D69A RESPONSE LOCATIONS**

Condition		Response
<b>D69A</b>	The Applicant must prepare an Operational Traffic Management Plan (OTMP) for Stage 1. The OTMP must form part of the OEMP required by condition D130 and must:	
<b>(a)</b>	be prepared by a suitably qualified and experienced expert, in consultation with Council and TfNSW	Consultants from Ason Group are suitably qualified Traffic Engineers. Council and TfNSW shall be consulted following preparation of this plan, with relevant updates (if required) made following that consultation.
<b>(b)</b>	detail the numbers and frequency of truck movements, sizes of trucks, vehicle routes and hours of operation;	Section 2.2 of this report outlines the approved hours of operation. The Estate will operate 24/7 with further site-specific hours for individual facilities to be subject to separate management plan(s). Section 4.2.3 outlines the maximum permissible vehicle size, truck routes and all approved B-double truck routes. The Estate has been designed for access by 26m B-doubles. Larger vehicles, if desired by individual tenants, shall be subject to separate permit approvals via the National Heavy Vehicle Regulator; a process that requires separate endorsement by Council outside the scope of this OTMP.
<b>(c)</b>	include measures to maintain road safety and network efficiency;	Refer to Section 7.2 for measures to maintain road safety and network efficiency.
<b>(d)</b>	detail measures to minimise traffic noise, including procedures for receiving and addressing complaints from the community about Stage 1 related traffic and noise	Comments within the Driver Code of Conduct (Section 5) requires that drivers are to be cognisant of the noise and emissions requirements. Additionally, Section 7.3 includes requirements that each tenant shall manage their own business to minimise additional traffic and noise.
<b>(e)</b>	include a Driver's Code of Conduct that addresses: (i) travelling speeds and adherence to site-specific speed limits; (ii) procedures to ensure drivers adhere to designated heavy vehicle routes; and (iii) procedures to ensure drivers implement safe driving practices	A driver Code of Conduct can be found in Section 5. The drivers code of conduct addresses ways to minimise the impacts on the road network, with other road users, ensure truck routes are utilised and to manage pedestrian movements which all stem from following the NSW road rules.
<b>D69B</b>	The Applicant must:	
<b>(a)</b>	not commence operation of Stage 1 until the OTMP required by condition D69A is approved by the Planning Secretary; and	Noted.
<b>(b)</b>	implement the most recent version of the OTMP approved by the Planning Secretary for the duration of operation.	Noted - the most up to date version of the OTMP shall be implemented during the operation of the Site. Any updates to this OTMP shall be communicated to relevant stakeholders, including Council, TfNSW, DPIE and building tenants.

## 1.2 Background

A Concept Plan for the Estate was originally approved by the Department of Planning & Environment on 13 September 2019. Subsequently, a number of amendments to the Estate master plan and individual development sub-precincts have occurred, resulting in the form now approved. A summary of the relevant changes to building areas under previous consents is provided in **Table 2** below.

**TABLE 2 CONCEPT PLAN MODIFICATIONS**

Land Use	Total Warehouse	Total Office	Total
Concept Plan	452,493	22,776	<b>475,269</b>
MOD1	No Change in GFA		
MOD2	455,854	25,138	<b>480,992</b>
MOD3	529,589	66,177	<b>595,765</b>
MOD4	No Change in GFA		
MOD5	No Change in GFA		
MOD6	529,625	69,830	<b>599,455</b>
MOD7	529,772	69,683	<b>599,455</b>
MOD8	No Change in GFA		
MOD9	522,173	77,282	<b>599,455</b>
MOD10	521,320	78,135	<b>599,455</b>

Further background can be found online, either via the Major Projects website (link to MOD 10 below<sup>1</sup>) or Goodman's *Oakdale West Planning*<sup>3</sup> page.

## 1.3 Purpose of this Report

The purpose of this OTMP is in response to condition D69A (as outlined above) and other requirements. It provides guidance in relation to the parking and traffic management arrangements for the Estate with an overall objective to ensure safe and efficient movement of vehicles and personnel. This plan details the following:

- Thresholds for the type, frequency, and number of trucks within the Estate,
- Detail the access and parking arrangements to ensure no queuing on the public road network,
- Appropriate internal traffic controls and signage,
- Driver Code of Conduct,
- Proposed crossings and signage for safe movement of pedestrians within the Estate, and
- Details in relation to governance and administration of the plan.

<sup>1</sup> <https://www.planningportal.nsw.gov.au/major-projects/projects/oakdale-west-estate-mod-10-signage-changes>

<sup>3</sup> <https://au.goodman.com/oakdale-industrial-estate/oakdale-west-planning>

## 1.4 Exclusions

---

This OTMP does not cover the following:

- Traffic and pedestrian management associated with construction activities. Reference should be made to relevant Construction Traffic Management Plans (CTMP) or Traffic Control Plans (TCPs) specific to those works, as required.
- On-site traffic and parking management for individual Lots. Reference should therefore be made to the site-specific OTMPs for relevant details.
- Transport of Dangerous Goods is not covered by this OTMP. A Transport Emergency Response Plan (TERP) is required prior to transport of any Dangerous Goods. It is expected that such plans will be prepared by the Tenant involved in the transport of Dangerous Goods to/from the individual businesses within the Estate.

## 1.5 References

---

In preparing this Plan, reference is made to the following:

- Ason Group, Traffic Impact Assessment Report – Oakdale West Industrial Estate, Western Sydney Employment Area Concept Plan Modification Application 4, dated 12 May 2017 (MOD 4 Traffic Report)
- Ason Group, Transport Statement – Oakdale West Industrial Estate (SSD 7348) Modification 6, dated 09 November 2020 (MOD 6 Traffic Report)
- Ason Group, Transport Statement – Oakdale West Industrial Estate (SSD 7348) Modification 7, dated 31 May 2021 (MOD 7 Traffic Report)
- Department of Planning & Environment, Assessment Report – Oakdale West Industrial Estate (SSD 6917) Concept Proposal and Stage 1 DA Layout, October 2016
- Department of Planning & Environment, Assessment Report – Oakdale West Industrial Estate (SSD 6917 MOD 1) Concept Proposal and Stage 1 DA Layout, April 2017
- Department of Planning & Environment, Development Consent (SSD 7348 Mod-10), 17 August 2022.
- National Transport Commission, Australian Code for the Transport of Dangerous Goods by Road & Rail, Edition 7.5, dated 2017.
- RMS Technical Direction TDT 2013/04a, Guide to Traffic Generating Developments – Updated traffic surveys (RMS Guide TDT 04a)
- Roads and Maritime Services (RMS), Guide to Traffic Generating Developments (RMS Guide)
- TransGrid, TransGrid Easement Guidelines – Third Party Development

# 2 Estate Details

## 2.1 Estate Overview

OWE is a warehouse and industrial development precinct situated in Kemps Creek. The Precinct lies within a series of strategic growth corridors including the Western Sydney Growth Centre and Broader Western Sydney Employment Areas and is intended to be serviced by Compass Drive (previously known as the Western North South Link Road, WNSLR).

A total development floor area of 599,455m<sup>2</sup> is to be provided by the industrial buildings within the Estate, as outlined by the Concept Plan (SSD 7348 MOD 10) which has received approval on 17 August 2022.

Figure 2 below provides the context of the Estate with regard to existing road systems.

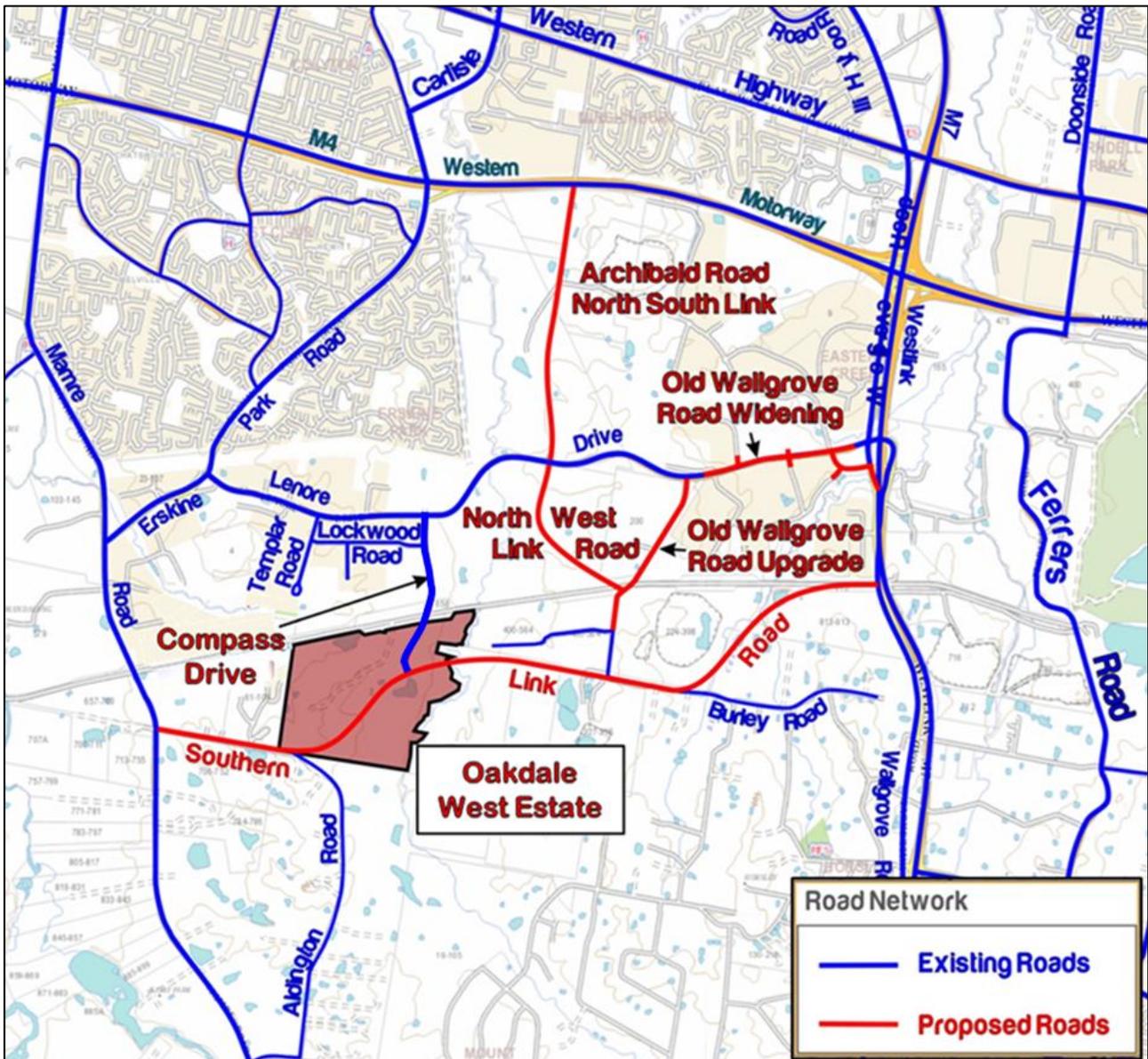


Figure 2: Site Appreciation and Road Hierarchy

The Estate comprises a number of industrial Lots as shown in **Figure 3** below.

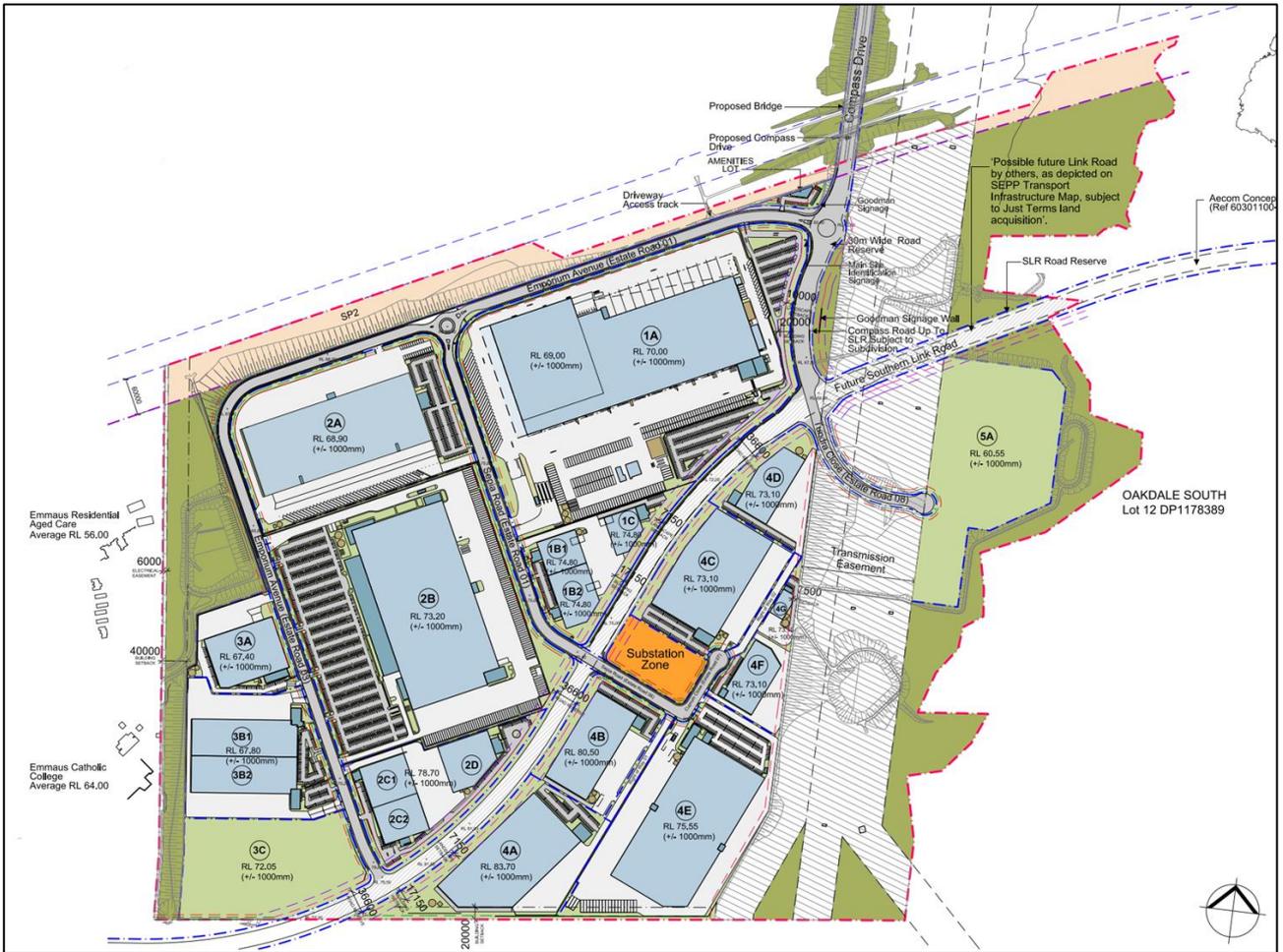


Figure 3: Estate Site Plan (MOD 10)

With reference to Figure 3, the key details relating to the Estate are as follows;

- An estate total Gross Floor Area (GFA) of 599,455m<sup>2</sup>.
- 5 development sub-precincts with up to 20 buildings (separate tenancies) used for warehouse and distribution uses; and

All access to the Estate is provided via Compass Drive. Vehicles are expected to travel along Old Wallgrove Road from the M4 or Lenore Drive, before heading south on Compass Drive and onto the internal estate roads.

An existing proposal with regards to the construction of the Southern Link Road (SLR) will form a connection with Mamre Road to the west and Wallgrove Road to the east.



Figure 4: Access Road

## 2.2 Hours of Operation

Operation of each Site will be subject to site specific OTMP's. Notwithstanding, Oakdale West has publicly dedicated roads that will be accessible at all times, therefore the Estate will effectively be operational 24 hours a day, 7 days a week.

## 2.3 Approved Estate Vehicle Movements

Transport and traffic projections underpinning the surrounding road infrastructure is based upon the MOD 10 GFAs. The traffic projections during the AM and PM peak below are determined to be similar to the approved MOD 9 traffic volumes;

- AM peak 1,263 veh/hr
- PM peak 1,006 veh/hr
- Daily 11,946 veh/day

For reference, 1 veh/hr (or veh/day) relates to the number of vehicle movements rather than simply the number of vehicles. As such, 1 vehicle in & out equates to 2 vehicle movements. A breakdown of the relative contribution of individual Precincts assumed is provided in **Table 3** below.

**TABLE 3 OAKDALE WEST TRIP GENERATION**

Precinct	Key Details	Traffic Generation (Vehicle movements)		
		AM	PM	Daily
1	125,198	108	83	2,562
2	267,860	859	608	5,630
3	53,170	87	87	1,006
4	120,557	157	176	2,136
5	32,325	53	53	612
-.1	345	-	-	-
<b>TOTAL<sup>2</sup></b>	<b>599,455</b>	<b>1,263</b>	<b>1,006</b>	<b>11,946</b>

Note: 1) Amenities Lot is not expected to generate vehicle movements and has been excluded from the calculations

2) Total traffic generation rates are higher than the sum of Precinct traffic generation rates due to rounding.

3) GFAs of each precinct reproduced from the MOD 10 Estate Masterplan dated 08 July 2022.

It is acknowledged that these sub-precinct traffic generation figures are based on average trip generation rates and, as such, you would expect some variability for sites. However, at the precinct level this will balance out. It is for this reason that the relevant thresholds for traffic are established under this Framework OTMP as opposed to each sub-precinct plan. Notwithstanding, review of sub-precinct generation shall form a key trigger as an ongoing monitoring requirement.

## 2.4 Transport Infrastructure

### 2.4.1 Public Transport

Public transport services operating in the vicinity of the Estate are presented in **Figure 55**. Bus routes include:

- Route 779 bus route; connecting St. Marys to Erskine Park Industrial Estate (shown in Figure 55),

Other notable bus services in the vicinity of the Site but outside the 1200m walking radius of the Site are:

- Route 738 bus route; connecting Mt. Druitt Railway Station to Eastern Creek and Horsley Park,
- Route 813 bus route; connecting Bonnyrigg and Western Sydney Parklands to Fairfield,
- Route 835 bus route; connecting St. Mary's Railway Station to the Prairiewood T-Way Station (shown in Figure 55).

These services operate every 30 minutes during weekday (Monday to Friday) morning and evening periods.

### 2.4.2 Pedestrian & Cyclist Connectivity

Pedestrian footpaths are provided on both sides of all roads within the Estate. A Shared Path (pedestrians and cyclists) is provided along the southern side of Lenore Drive and on Compass Avenue connecting with the Oakdale West Estate. Cyclists are to use this path, where practicable, and shall slow to pass pedestrians in a safe manner.

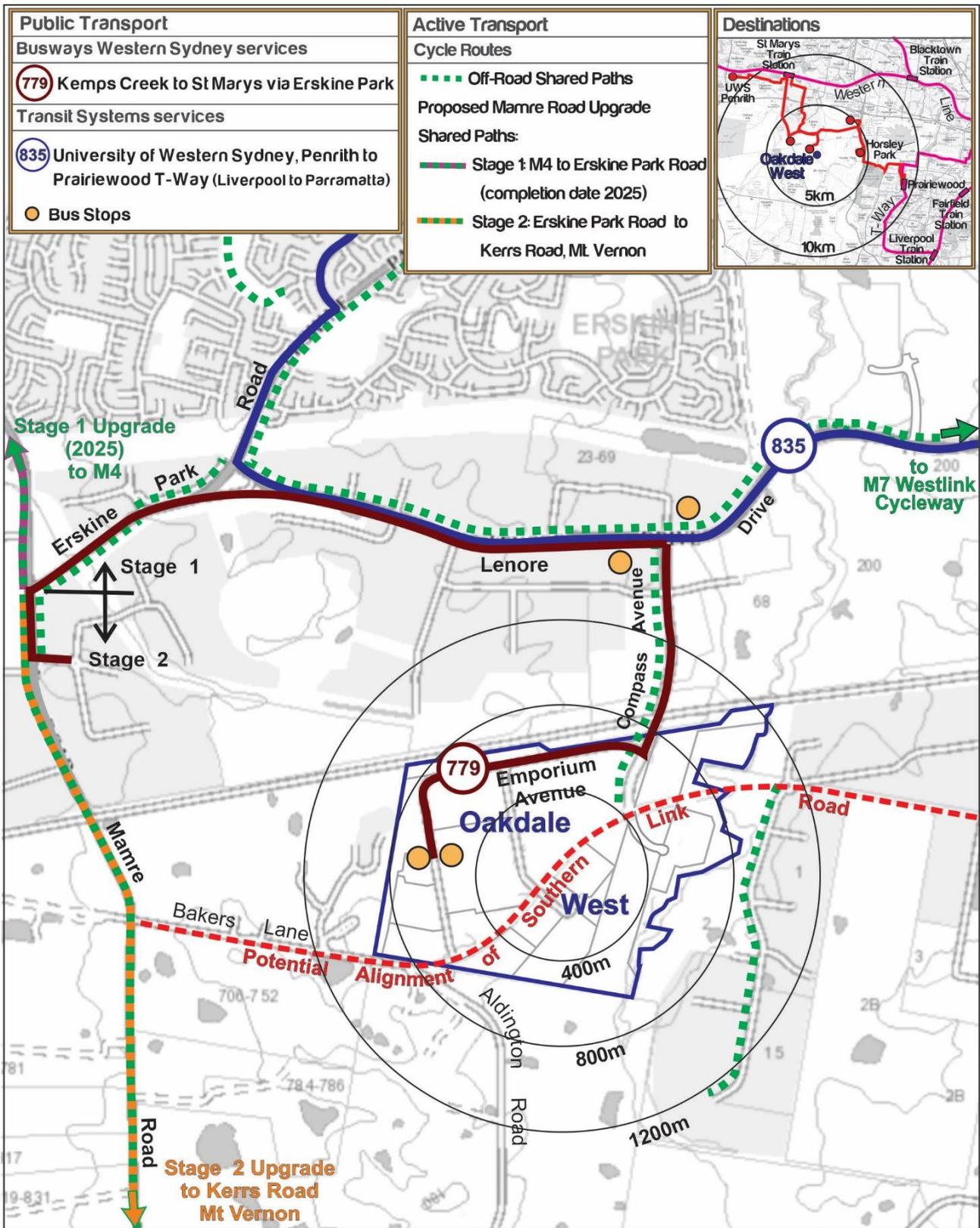


Figure 5: Public Transport Services

### 2.4.3 Roads

The key roads providing access for the OWE are provide below and illustrated within **Figure 6**.

TABLE 4 KEY ROADS					
Road	Category	No. of Lanes	Speed Limit (km/hr)	Parking Restrictions	Footpaths / Cycleway
M7 Motorway	Motorway	4	100	No Stopping	No
Wallgrove Road	Arterial	4	70	No Stopping	No
Lenore Drive	Sub-arterial	4	80	No Stopping	Yes
Old Wallgrove Road	Collector	4	80	No Stopping	Yes
Mamre Road	Collector	2	80	No Stopping	No
Compass Drive	Collector	4	60	No Stopping	Yes
Estate Road 01	Local	2	50	Yes	Yes
Estate Road 03	Local	2	50	Yes	Yes

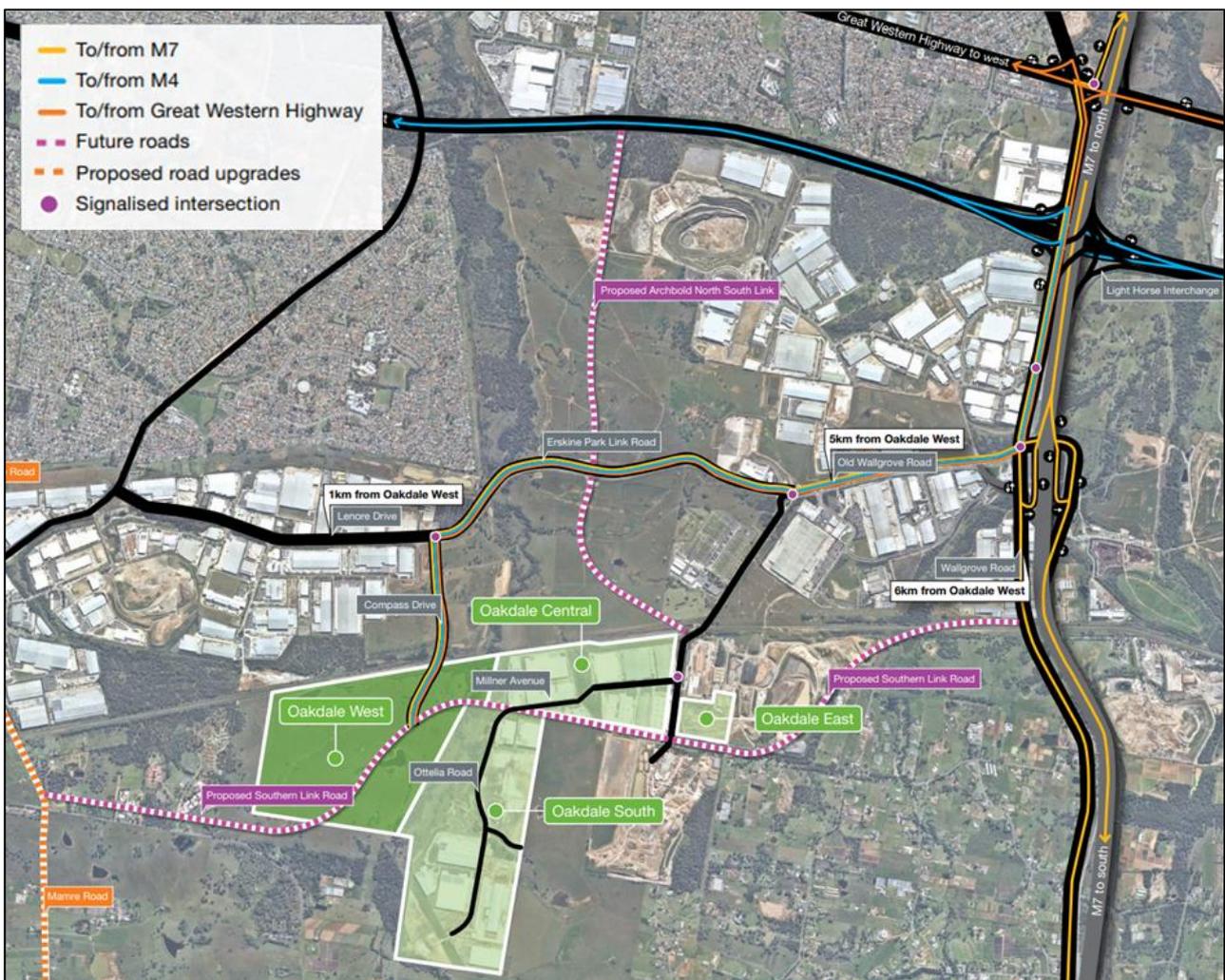


Figure 6: Road Layout

### 3 Statutory Requirements

A summary of the relevant conditions of approval – relating to operational traffic and parking management – for Oakdale West (Concept Plan, Stage 1 and Stage 2 works) are summarised below.

TABLE 5 MOD 10 APPROVAL - COMPLIANCE TABLE											
Requirement	Reference										
CONDITIONS FOR CONSENT FOR CONCEPT PROPOSAL											
In accordance with section 4.22 of the EP&A Act, each stage of the Concept Proposal (excluding Stage 1) is to be subject to future development applications (DAs). Future DAs are to be consistent with this development consent.	B1 (SSD-7348-Mod-10)										
To avoid any doubt, this Concept Proposal consent does not permit the construction or operation of any Development, except for the Stage 1 DA covered by Schedule D.	B2 (SSD-7348-Mod-10)										
<p>The following limits apply to the Concept Proposal for the Development:</p> <ul style="list-style-type: none"> <li>a) the maximum GLA for the land uses in the Development shall not exceed the limits in Table 1.</li> <li>b) a minimum 60 metre (m) wide corridor along the northern Site boundary shall not be developed and shall be maintained and preserved for the future WSFL corridor, in accordance with the requirements of TfNSW.</li> <li>e) forklifts are not to operate during the night-time period on Lots 2C, 2D, 2E, 3B, 3C, 3D, 3E, 4A and 5A; and</li> <li>g) all traffic associate with operation of the Development shall use the West North South Link Road, and the future SLR, to access the site and shall not use Bakers Lane or Aldington Road</li> </ul> <table border="1"> <thead> <tr> <th>Land Use</th> <th>Maximum GLA (m<sup>2</sup>)</th> </tr> </thead> <tbody> <tr> <td>Total Warehousing</td> <td>529,625</td> </tr> <tr> <td>Total Office</td> <td>22,770</td> </tr> <tr> <td>Other</td> <td>4,429</td> </tr> <tr> <td>Total GLA</td> <td>556,824</td> </tr> </tbody> </table>	Land Use	Maximum GLA (m <sup>2</sup> )	Total Warehousing	529,625	Total Office	22,770	Other	4,429	Total GLA	556,824	B9 (SSD-7348-Mod-10)
Land Use	Maximum GLA (m <sup>2</sup> )										
Total Warehousing	529,625										
Total Office	22,770										
Other	4,429										
Total GLA	556,824										
<p>The Applicant shall ensure the Concept Proposal provides car parking in accordance with the following rates:</p> <ul style="list-style-type: none"> <li>a) 1 space per 300 m<sup>2</sup> of warehouse GFA.</li> <li>b) 1 space per 40 m<sup>2</sup> of office GFA; and</li> <li>c) 2 spaces for disability parking for every 100 car parking spaces.</li> </ul>	B13 (SSD-7348-Mod-10) B20 (SSD 10397-Mod-1)										
The Applicant shall provide bicycle racks, and amenity and change room facilities for cyclists in accordance with Planning Guidelines for Walking and Cycling (December 2004), NSW Department of Infrastructure, Planning and Natural Resources; Roads and Traffic Authority.	B14 (SSD-7348-Mod-10)										

CONDITIONS TO BE MET IN FUTURE DEVELOPMENT APPLICATIONS	
<p>Future DAs shall be accompanied by a transport, access, and parking assessment. The assessment must:</p> <ul style="list-style-type: none"> <li>a) assess the impacts on the safety and capacity of the surrounding road network and access points during construction and operation of the relevant Stage.</li> <li>b) demonstrate internal roads and car parking complies with relevant Australian Standards and the car parking rates in Condition B13.</li> <li>c) detail the scope and timing of any required road upgrades to service the relevant Stage; and</li> <li>d) detail measures to promote non-car travel modes, including a Sustainable Travel Plan identifying pedestrian and cyclist facilities to service the relevant Stage of the Development.</li> </ul>	C9 (SSD-7348-Mod-10)
CONDITIONS FOR CONSENT FOR THE STAGE 1 DA	
<p>The Applicant must:</p> <ul style="list-style-type: none"> <li>a) provide safe and unobstructed access for TransGrid plant and personnel to access the transmission towers, lines and easement on the Site, 24 hours a day, 7 days a week.</li> <li>b) comply with the requirements of TransGrid for any works in the TransGrid easement on the Site; and</li> <li>c) advise TransGrid of any proposed amended or modified encroachment into the easement.</li> </ul>	D30 (SSD-7348-Mod-10)
<p>The Applicant must ensure:</p> <ul style="list-style-type: none"> <li>a) internal roads, driveways, and parking (including grades, turn paths, sight distance requirements, aisle widths, aisle lengths and parking bay dimensions) are constructed and maintained in accordance with the latest version of AS 2890.1:2004 Parking facilities Off-street car parking (Standards Australia, 2004) and AS 2890.2:2002 Parking facilities Off-street commercial vehicle facilities (Standards Australia, 2002).</li> <li>b) parking for Stage 1 is provided in accordance with the EIS and RtS for MOD 5;</li> <li>c) the swept path of the longest vehicle entering and exiting the site, as well as manoeuvrability through the site, is in accordance with the relevant Austroads guidelines.</li> <li>d) Stage 1 does not result in any vehicles queuing on the public road network.</li> <li>e) heavy vehicles with Stage 1 are not parked on local roads or footpaths in the vicinity of the Site.</li> <li>f) all vehicles are wholly contained on site before being required to stop.</li> <li>g) all loading and unloading of materials are carried out on Site.</li> <li>h) all trucks entering or leaving the Site with loads have their loads covered and do not track dirt onto the public road network; and</li> <li>i) the proposed turning areas in the car parks are kept clear of any obstacles, including parked cars, always.</li> </ul>	D69 (SSD-7348-Mod-10)
<p>The Applicant must prepare an Operational Traffic Management Plan (OTMP) for Stage 1. The OTMP must form part of the OEMP required by condition D130 and must:</p> <ul style="list-style-type: none"> <li>a) be prepared by a suitably qualified and experienced expert, in consultation with Council and TfNSW.</li> <li>b) detail the number and frequency of trucks, sizes of trucks, vehicle routes and hours of operation.</li> <li>c) include measures to maintain road safety and network efficiency.</li> </ul>	D69A (SSD-7348-Mod-10) B17 (SSD 10397 – Mod-1)

<ul style="list-style-type: none"> <li>d) detail measures to minimise traffic noise, including procedures for receiving and addressing complaints from the community about Stage 1 related traffic and noise.</li> <li>e) include a Driver’s Code of Conduct that addresses: <ul style="list-style-type: none"> <li>(i) travelling speeds and adherence to site-specific speed limits.</li> <li>(ii) procedures to ensure drivers adhere to designated heavy vehicle routes; and</li> <li>(iii) procedures to ensure drivers implement safe driving practices.</li> </ul> </li> </ul>										
<ul style="list-style-type: none"> <li>a) not commence operation of Stage 1 until the OTMP required by condition D69A is approved by the Planning Secretary; and</li> <li>b) implement the most recent OTMP approved by the Planning Secretary for the duration of operation</li> </ul>	D69B (SSD-7348-Mod-10) B18 (SSD 10397-Mod-1)									
<p>The Applicant must comply with the hours detailed in Table 5, unless otherwise agreed in writing by the Planning Secretary.</p> <table border="1"> <thead> <tr> <th>Activity</th> <th>Day</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>Construction</td> <td>Monday – Friday Saturday</td> <td>7am to 6 pm 8 am to 1 pm</td> </tr> <tr> <td>Operation</td> <td>Monday – Sunday (including public holidays)</td> <td>24 hours</td> </tr> </tbody> </table>	Activity	Day	Time	Construction	Monday – Friday Saturday	7am to 6 pm 8 am to 1 pm	Operation	Monday – Sunday (including public holidays)	24 hours	D70 (SSD-7348-Mod-9) B21 (SSD 10397-Mod-1)
Activity	Day	Time								
Construction	Monday – Friday Saturday	7am to 6 pm 8 am to 1 pm								
Operation	Monday – Sunday (including public holidays)	24 hours								
<p>Works outside of the hours identified in Condition D70 may be undertaken in the following circumstances:</p> <ul style="list-style-type: none"> <li>a) works that are inaudible at the nearest sensitive receivers.</li> <li>b) works agreed to in writing by the Planning Secretary.</li> <li>c) for the delivery of materials required outside these hours by the NSW Police Force or other authorities for safety reasons; or</li> <li>d) where it is required in an emergency to avoid the loss of lives, property or to prevent environmental harm</li> </ul>	D71 (SSD-7348-Mod-10) B22 (SSD 10397-Mod-1)									

Refer to the Department of Planning & Environment’s Major Project Assessments [website](#) for a full list of all conditions of approval.

# 4 Traffic Management Plan

## 4.1 Pedestrian Management

### 4.1.1 On-site Pedestrian Management

Refer to site-specific OTMPs for further detail with regard to on-site pedestrian management.

As a general rule, pedestrian access to on-site hardstand areas used by heavy vehicles should be restricted as far as practicable for safety purposes.

It should be noted that pedestrians have right-of-way when crossing driveways, therefore Drivers of Goodman Tenanted facilities will be required to give-way to pedestrians when entering or exiting individual Lots.

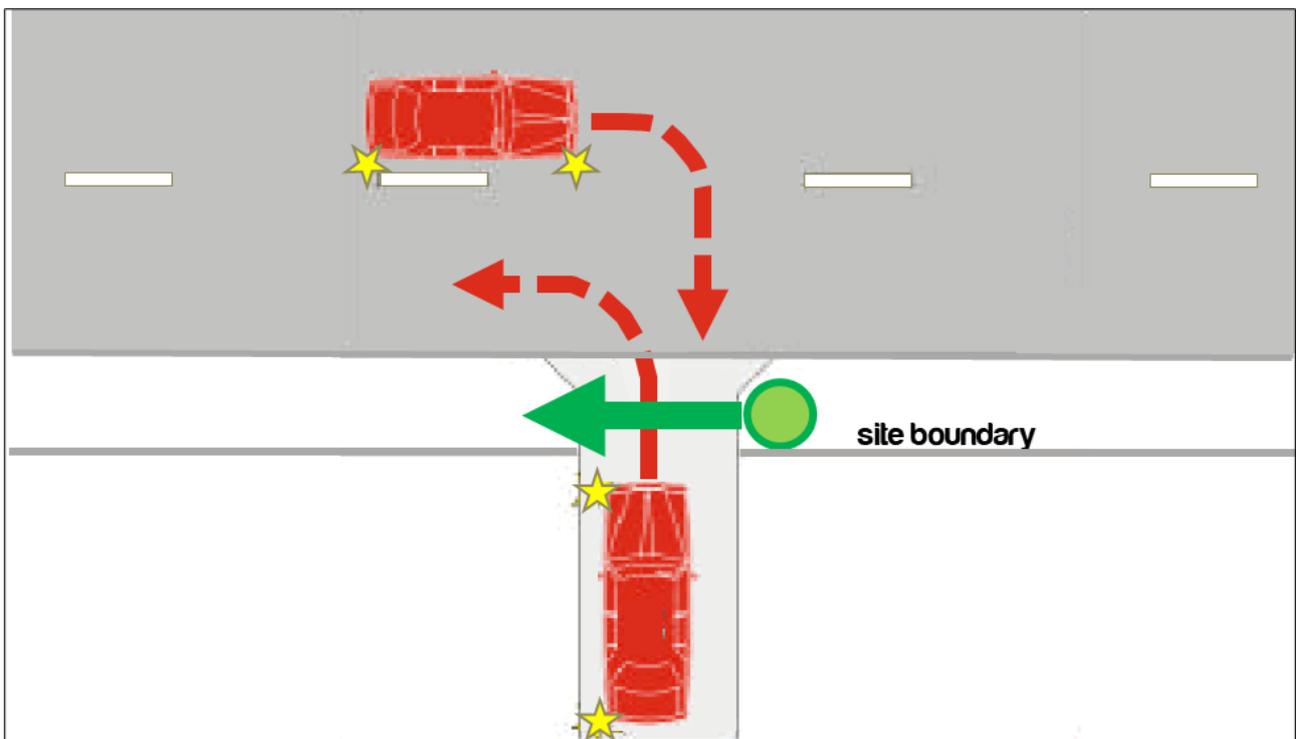


Figure 7: Pedestrian/cyclist Priority of Movement at Site Access

### 4.1.2 On-street Pedestrian Management

Pedestrians are to use footpaths and the Shared Path, as provided, wherever practicable. Pedestrian refuge islands are included on the splitter islands to the roundabouts along Estate Road 01 and Estate Road 03 and should be used wherever possible.

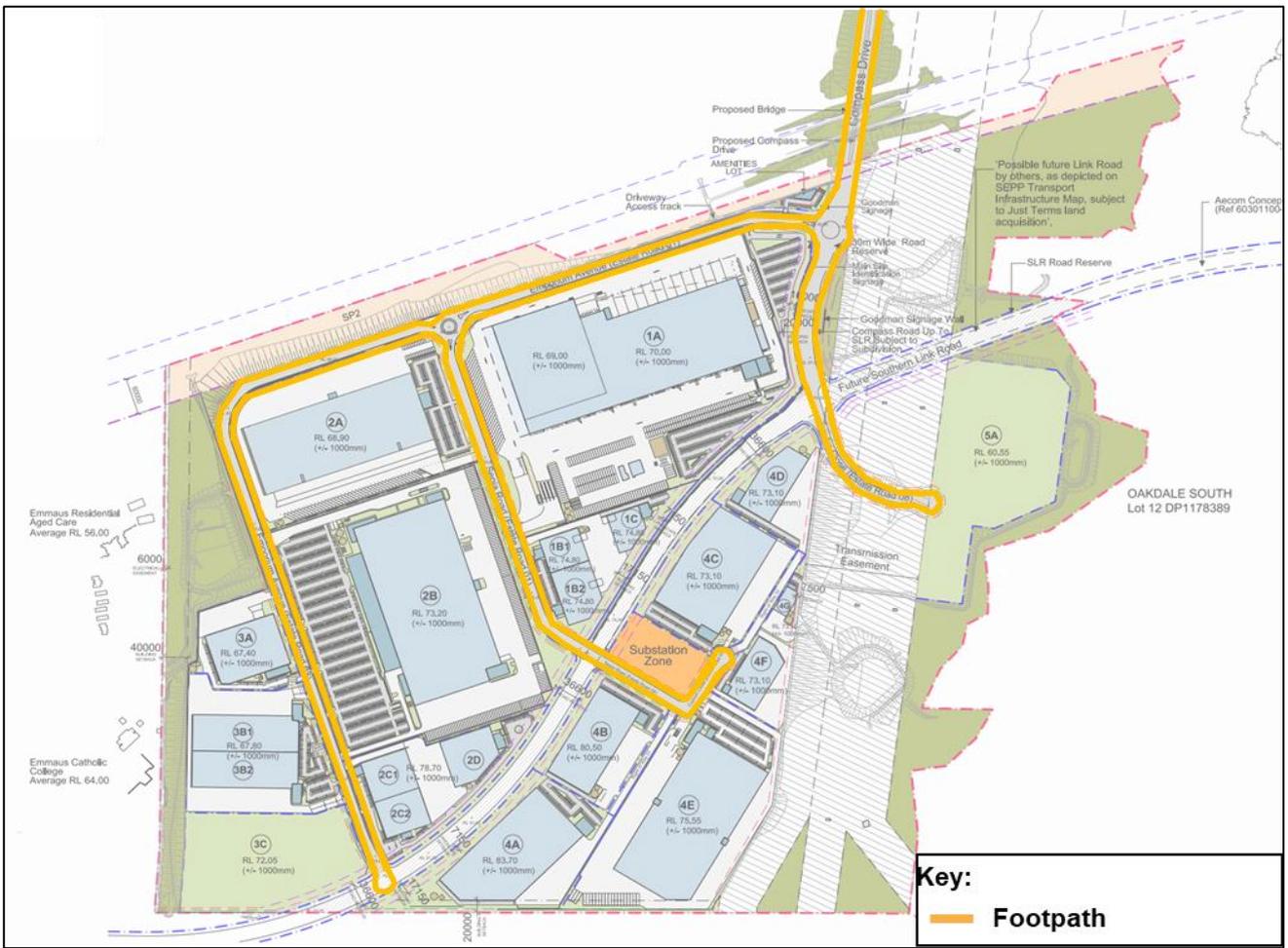


Figure 8: Footpaths within Oakdale West Estate

## 4.2 Vehicle Management

All Drivers of Goodman Tenanted facilities are to operate vehicles in a manner consistent with the requirements of applicable Work Health and Safety (WHS) legislation and other business specific policies. All commercial vehicles drivers of Goodman Tenanted facilities are to be familiar with the Driver Code of Conduct – outlined in Section 6- before attending the Estate.

It is important to note that any posted speed signage within any of the Estate (private roads) should not replicate the design and appearance of the regulatory speed limit signage (a number within the red circle).

### 4.2.1 Maximum Vehicle Size

As indicated in Section 3.3, maximum vehicle size expected to access the Estate by Drivers of Goodman Tenanted facilities is a 26.0 metre B-double. Larger vehicles — including oversize vehicle configurations — shall also access the Estate, under relevant permit approvals.

Refer to site-specific OTMPs for further detail regarding further restrictions that may apply to individual Precincts or buildings.

## 4.2.2 Truck Access Routes

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All commercial vehicles drivers of Goodman Tenanted facilities will access the Estate from Compass Drive and Lenore Drive. From that point, these heavy vehicles are expected to use the Classified Road network wherever possible, with the use of local Council roads only as necessary.

At all times drivers of Goodman Tenanted facilities are to adhere to the applicable Road Rules and the Drivers Code of Conduct outlined in Section 6. Drivers of Goodman Tenanted facilities accessing the Estate shall adhere to the following access management measures:

- Drivers of Goodman Tenanted facilities turning right into driveways or side roads shall do so from as close to the centreline of the carriageway.

Note - if turning from a two-lane road - the RMS Heavy Vehicle Driver Handbook states that vehicles 7.5 metres or longer with a DO NOT OVERTAKE TURNING VEHICLE sign displayed on the back can turn right from the lane on the immediate left of the far-right lane.

- Heavy vehicles (in excess of 4.5 Tonne GVM) or long vehicles (over 7.5 metres in length) must not stop on a length of road outside a built-up area, except on the shoulder of the road.

In a built-up area where parking is permitted (for vehicles lighter than 4.5 Tonne GVM and under 7.5 metres in length), they must not stop for longer than one hour (buses excepted). For more information on where vehicles can stand or park, refer to the Road Users' Handbook.

## 4.2.3 Approved B-double Routes

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At the time of preparing this plan, the approved B-double routes in the vicinity of the Estate are presented in **Figure 9**.

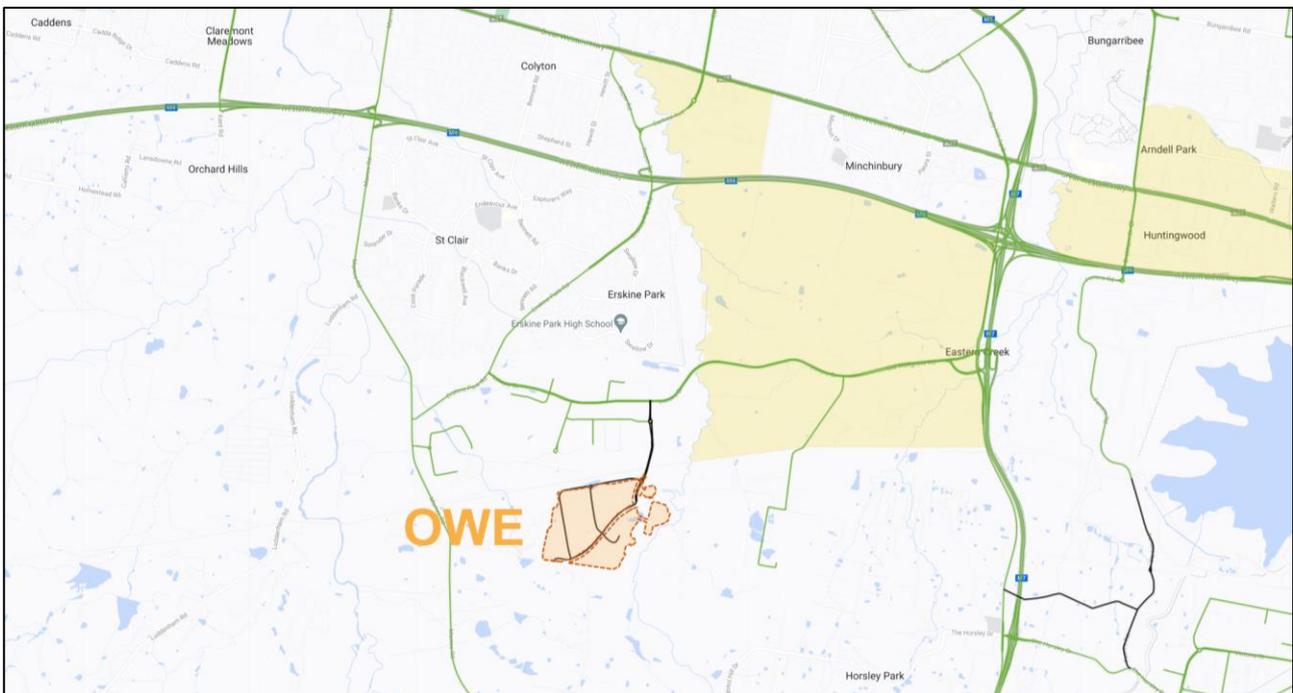


Figure 9: Approved B-double Routes

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Up-to-date details regarding approved B-double routes can be obtained from the TfNSW web portal (<https://roads-waterways.transport.nsw.gov.au/business-industry/heavy-vehicles/maps/restricted-access-vehicles-map/map/index.html>).

### 4.3 Site Access

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Details regarding access to individual Lots are provided within the site-specific OTMPs, prepared separately.

### 4.4 TransGrid Easement

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The TransGrid easement shall remain clear at all times, unless otherwise agreed by TransGrid. In this regard, any access driveway crossing the easement shall be subject to No Stopping restrictions along the length of the TransGrid easement.

This requirement shall be emphasised in the sub-precinct OTMP requirements in relation to Stage 5 where most relevant.

### 4.5 Temporary or Unplanned Works

---

Construction works, and associated traffic management measures are not covered by this plan.

Notwithstanding, any traffic and pedestrian control in relation to temporary or unplanned works shall be designed in accordance with AS1742 and/or the TfNSW Traffic Control at Work Sites manual (ver. 6), as appropriate.

Where practicable, work areas and temporary pedestrian paths (if applicable) should be physically separated from vehicle movements by way of traffic cones, bollards and/or temporary pedestrian fencing.

### 4.6 Dangerous Goods

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A Transport Emergency Response Plan (TERP) is required prior to transport of any Dangerous Goods. It is expected that such plans will be prepared by the Tenant involved in the transport of Dangerous Goods to/from the individual businesses within the Estate. Accordingly, transport of Dangerous Goods is not covered by this OTMP.

It is expected that any TERP would, as a minimum, be in accordance with the 2012 Emergency Response Guidebook or HB76: 2010 Dangerous Goods – Initial Emergency Response Guide.

# 5 Driver Code of Conduct

Parties in the supply chain under the Heavy Vehicle National Law (HVNL) are responsible to ensure breaches of road transport laws do not occur. Duty holders need to make sure that their actions or inactions do not contribute to or encourage breaches of the HVNL.

Drivers of Goodman Tenanted facilities operating on Estate Roads shall adhere to safe driving policies and adhere to the following Driver Code of Conduct (the Code).

## 5.1 Objectives of the Code

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- To minimise the impact of the development on the local and regional road network;
- Minimise conflict with other road users;
- Minimise road traffic noise during night-time hours;
- Ensure truck drivers use specified routes; and
- Manage/control pedestrian movements.

## 5.2 Code of Conduct

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The code of conduct requires that all drivers of Goodman Tenanted facilities must:

- Demonstrate safe driving and road safety activities.
- Comply with all traffic and road legislation.
- Adhere to site signage and instructions.
- Only enter and exit the site via the allocated entry and exit points.

Drivers of Goodman Tenanted facilities undertaking any of the following will be in a breach of conduct, result in administrative action and potential removal from Estate:

- Reckless or dangerous driving causing injury or death.
- Driving whilst disqualified or not correctly licensed.
- Drinking or being under the influence of drugs while driving
- Failing to stop after an incident.
- Loss of demerit points leading to suspension of licence.
- Any actions that warrant the suspension of a licence
- Exceeding the speed limit in place on any permanent or temporary roads

The above activities shall be enforced by licence checks, random drug and alcohol testing by each tenant's management team, and review of any community / enforcement feedback.

## 5.3 Management Team Responsibilities

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Management (operator / manager / scheduler) is responsible to take all steps necessary to ensure drivers of Goodman Tenanted facilities are as safe as possible and will not require staff to drive under conditions that are unsafe.

Management is to achieve this by undertaking the following:

- Ensuring all work related vehicles are well maintained and that the equipment enhances driver, operator and passenger safety by way of:
  - Daily prestart inspections for all vehicles and associated equipment.
  - All vehicles must be fitted with reverse alarms.
  - Ensure all operators on-site have a current verification of competency (VOC) for their current driver's licence of the appropriate class.
  - Ensure maintenance requirements are met.
- Identify driver training needs and arranging appropriate training or re-training. This may include operator assessment as part of all inductions.
- Encouraging Safe Driving behaviour by:
  - Ensure rosters and schedules do not require drivers to exceed driving hours regulations or speed limits;
  - Keep records of drivers' activities, including work and rest times;
  - Ensure Drivers do not work while impaired by fatigue or drive in breach of their work or rest options;
  - Ensuring any Tenant is informed if their staff become unlicensed.
  - Not covering or re-imbursing staff speeding or other infringement notices.
  - Ensuring Legal use of mobile phones in vehicles while driving only and that illegal use is not undertaken.
- Encouraging better fuel efficiency by:
  - Use of other transport modes or remote conferencing, whenever practical.
  - Providing training on, and circulating information about, travel planning and efficient driving habits.

## 5.4 Driver Responsibilities

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All drivers of Goodman Tenanted facilities accessing the site must:

- Be responsible and accountable for their actions when operating a company vehicle or driving for the purposes of work.
- Be cognisant of the noise and emissions requirements imposed within the OEMP, and in a broader sense, the NSW/ Australian Road Rules.
- Display the highest level of professional conduct when driving a vehicle at work.
- Ensure they have a current Australian State or Territory issued driver licence for the class of vehicle they are driving, and this licence is to be carried.
- Immediately notify their supervisor or manager if their drivers' licence has been suspended, cancelled, or has had limitations applied.
- Comply with all traffic and road legislation at all times.
- Assess hazards while driving and demonstrate appropriate care.

- Regularly check the oil, tyre pressures, radiator and battery levels of company vehicles they regularly used.
- Obey all on-site signposted speed limits and comply with directions of traffic control supervisors in relation to movements in and around temporary or fixed work areas.
- Not drive outside of the approved heavy vehicle routes. All drivers must obey weight, length and height restrictions imposed by the National Heavy Vehicle Regulator, and other Government agencies. Heavy Vehicles shall adhere to the routes outlined in Section 5.2.2.
- Be aware that at no time may a tracked vehicle be permitted or required on a paved road.
- Never drive under the influence of alcohol or drugs, including prescription and over the counter medication if they cause drowsiness –to do so will merit disciplinary measures.
- Wear a safety seat belt at all times when in the vehicle.
- Avoid distraction when driving –the driver will adjust car stereos/mirrors etc. before setting off or pull over safely to do so.
- Report any near-hits, crashes and scrapes to their manager, including those that do not result in injury.
- Report infringements to a manager at the earliest opportunity.
- Report vehicle defects to a manager prior to the next vehicle use.
- Adhere to the authorised site access and egress routes.
- Follow speed limits as imposed within the estate.
- Take reasonable care for his or her own personal health and safety.
- Not adversely, by way of actions or otherwise, impact on the health and safety of other persons.
- Notify their employer if they are not fit for duty prior to commencing their shift.
- Ensure all loads are safely covered and / or restrained, as necessary.
- Ensure no dirt or debris from the vehicles is tracked on to the public road network.
- Operate their vehicles in a safe and professional manner, with consideration for all other road users.
- Not use mobile phones when driving a vehicle or operating equipment. If the use of a mobile device is required, the driver shall pull over in a safe and legal location prior to the use of any mobile device.
- Advise management of any situations in which the driver knows, or thinks, may present a threat to workplace health and safety.
- Drive according to prevailing conditions (such as during inclement weather) and reduce speed, if necessary.
- Have a valid Container Wright Declaration if they are to move freight containers.

## 5.5 Crash or incident Procedure

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In the event of a crash or other incident whilst driving:

- Stop your vehicle as close to it as possible to the scene, making sure you are not hindering traffic. Ensure your own safety first, then help any injured people and seek assistance immediately if required.
- Ensure the following information is noted:
  - Details of the other vehicles and registration numbers
  - Names and addresses of the other vehicle drivers.
  - Names and addresses of witnesses.
  - Insurers details
- Give the following information to the involved parties:

- Name, address and company details
- If the damaged vehicle is not occupied, provide a note with your contact details for the owner to contact the company.
- Ensure that the police are contacted should the following circumstances occur:
  - If there is a disagreement over the cause of the crash.
  - If there are injuries.
  - If you damage property other than your own.
- As soon as reasonably practical, report all details gathered to your manager.

# 6 Parking Management

## 6.1 On-site Car Parking

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In accordance with the condition B13, individual sites shall provide on-site car parking in accordance with the following rates (unless specific approval for reduced rates is provided by a subsequent development consent).

<b>TABLE 6 CONCEPT PLAN CAR PARKING RATES</b>	
<b>Land Use</b>	<b>Minimum Car Parking Rate</b>
Warehouse / Distribution	1 space per 300m <sup>2</sup>
Office	1 space per 40m <sup>2</sup>
Accessible	2 spaces per 100 spaces provided

On-site parking provisions is a matter for individual site-specific OTMPs.

## 6.2 On-street Parking

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There are various parking restrictions within the Estate for on-street parking.

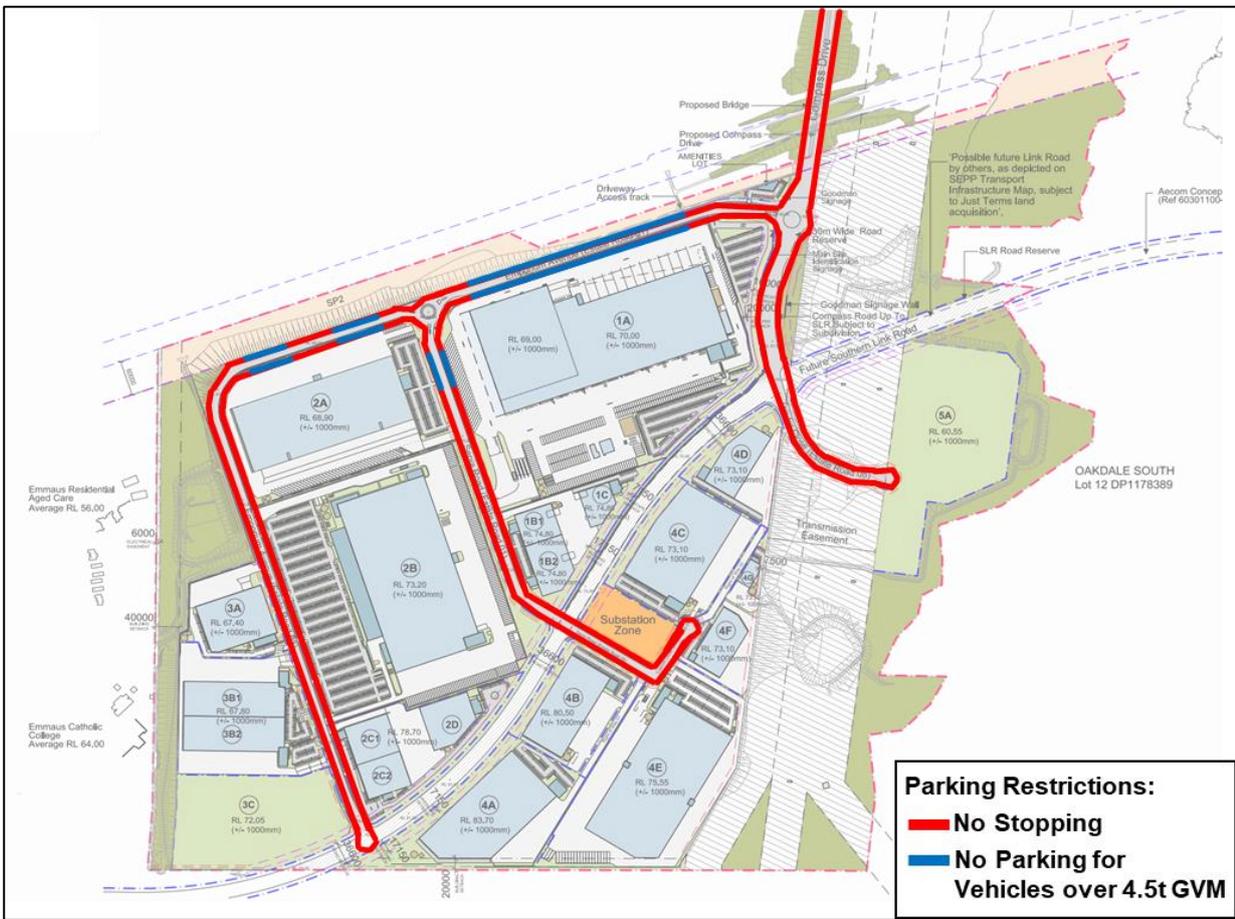


Figure 10: Parking Restrictions Within OWE

Drivers will ensure that trailers are parked within their designated areas and will not park trailers within circulation roadways and access roads (incl. emergency vehicle access roads). Management of respective lots shall remain the responsibility of the respective property's owner to ensure that no vehicles associated with business operations are parked on-street.

Management of respective lots will remain the responsibility of the respective property's owner to ensure that no vehicle associated with business operations are parked on street.

# 7 Plan Administration

## 7.1 Plan Maintenance

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This Plan shall be subject to ongoing review and will be updated as necessary in response to monitoring activities, changing requirements or in response to any documented WHS issues. In particular, a review of this Plan may be required where a new business occupies a tenancy and has different operational requirements to that envisaged under this Plan (refer to Section 2.3). Where a change of businesses does not alter the underlying characteristics of the operation, no change to this plan would be required.

As a minimum, ongoing review of the OTMP shall occur annually. All and any reviews undertaken should be documented, however key considerations regarding the review of the OTMP shall be:

- Annual surveys of the Estate access points to review traffic generation.
- Quarterly condition review in relation to dirt on public roadways for the first 2 years of operation. Following that, review can occur annually as part of the ongoing review cycle.
- Regular checks undertaken to ensure all loads are entering and leaving site covered.
- A dilapidation report is expected to be undertaken periodically to assess the condition of the road and note whether there has been any reduction in quality of the road. This report shall be forwarded to Council for appropriate action, where deemed necessary.

## 7.2 Monitoring Requirements

---

To ensure the effectiveness of this OTMP, various monitoring requirements have been established and expected to form part of the monitoring plan required to be included as part of the overarching OEMP.

A comprehensive contingency plan shall be established and included in the overarching OEMP. In relation to transport and parking, the following measures are to be included in that overarching plan.

**TABLE 7 CONTINGENCY PLAN**

Risk		Condition Green	Condition Amber	Condition Red
Operational Movements	<b>Trigger</b>	Visual monitoring of all traffic movements within OWE does not detect unsafe movement of traffic and risk to persons and property	Monitoring of all traffic movements within OWE detects unsafe movement of traffic and risk to persons and property	Monitoring of all traffic movements within OWE identifies several unsafe movements of traffic and risk to persons and property
	<b>Response</b>	Visual monitoring to continue daily as part of an ongoing process.	<ul style="list-style-type: none"> <li>Review needed to address persistent unsafe movements.</li> <li>Modification of traffic controls to self-enforce appropriate vehicle manoeuvres within the site.</li> </ul>	Condition Amber responses, plus the following additional responses; <ul style="list-style-type: none"> <li>Direct cessation of unsafe movements.</li> </ul>
	<b>Trigger</b>	Access roads within OWE have been inspected and noted that roads are clear, and conditions support a safe environment for all road users	Roads within OWE have been inspected and noted that vehicles are parked in unsafe areas, or other road / intersection congestion has been identified during peak periods	Roads within OWE have been inspected and noted that road and intersection congestion has been identified during most periods of the day
	<b>Response</b>	No action required.	<ul style="list-style-type: none"> <li>Clear any impediments to access roads.</li> <li>Review OTMP and update where necessary.</li> <li>Provide additional training.</li> </ul>	Condition Amber responses, plus the following additional responses; <ul style="list-style-type: none"> <li>Report unsafe road conditions to Council for attention.</li> </ul>
	<b>Trigger</b>	Following periods of adverse weather conditions (e.g., a significant heavy rain event), roads have been inspected prior to heavy vehicle traffic use and no issues found	Roads have been inspected following adverse weather conditions and minor issues found (small pot holes, dirt / debris, or pooling water)	Roads have been inspected following adverse weather conditions and major issues found (failed road integrity, large diameter pot holes, fallen light poles or trees)
	<b>Response</b>	No further action required until next adverse weather event.	<ul style="list-style-type: none"> <li>Any impediments to access roads will be cleared.</li> <li>Road maintenance teams shall repair any pot holes and remove excess water when expected traffic volumes are lowest.</li> </ul>	Condition Amber responses, plus the following additional responses; <ul style="list-style-type: none"> <li>Install a detour around any unsafe obstacle to ensure safety for all motorists and/or pedestrians.</li> </ul>

	<b>Trigger</b>	Observation of traffic control measures reveal no clear issues.	Observation of traffic control measures reveal minor issues regarding incorrect placement of signage, damaged or missing signage.	Observed traffic control measure are ineffective and creative major safety issues.
	<b>Response</b>	This traffic control inspection shall be completed every week for the first 2 months of operations and fortnightly thereafter for the first 6 months. Review shall continue monthly thereafter.	<ul style="list-style-type: none"> <li>Rectify/ adjust traffic control measures to improve visibility or effectiveness.</li> <li>Review needed for additional or modified traffic control measures.</li> </ul>	Condition Amber responses, plus the following additional responses; <ul style="list-style-type: none"> <li>Install a detour around any unsafe obstacle to ensure safety for all motorists and/or pedestrians.</li> </ul>
	<b>Trigger</b>	Operational traffic volume is in accordance with permissible and programmed volume constraints	Operational traffic volumes are within 90% of the permissible volume constraints	Operational traffic volumes exceed permissible volume constraints
	<b>Response</b>	This operational traffic volume review shall be completed monthly for the first 6 months of operation and bi-annually thereafter.	Review and investigate operational activities, and where appropriate, implement additional remediation measures such as: <ul style="list-style-type: none"> <li>Undertake additional surveys of the Estate to review generation in more detail.</li> <li>Review OTMP and update where necessary.</li> <li>Provide additional training to tenants.</li> </ul>	Condition Amber responses, plus the following additional responses; <ul style="list-style-type: none"> <li>Temporary halting of activities and resuming when conditions have improved.</li> <li>Surveys of each tenancy shall be required to allow enforcement of site-specific thresholds.</li> </ul>
<b>Queueing</b>	<b>Trigger</b>	No queuing identified	Queuing identified within the Estate	Queuing identified on the public road
	<b>Response</b>	No response required. Continue monitoring program	Review the delivery schedules prepared by the tenant. <ul style="list-style-type: none"> <li>Drivers be provided with additional training and an extra copy of the Driver Code of Conduct.</li> <li>Provision of additional training to the tenants should be provided to ensure the most appropriate schedule can be created.</li> </ul>	Condition Amber responses, plus the following additional responses; <ul style="list-style-type: none"> <li>Approved traffic thresholds to be enforced for each sub-tenancy.</li> <li>Review OTMP and update where necessary.</li> </ul>

<b>Incidents</b>	<b>Trigger</b>	No incidents observed or reported	Near miss or minor incident occurred within the carriageway of OWE which did not require medical attention (such as tripping on raised footpath)	Major incident occurred within the carriageway of OWE which did not require medical attention (such as being hit by a truck while exiting a Site)
	<b>Response</b>	No action required at this stage, however continual reinforcement to all tenants to report all incidents shall continue.	Near miss to be reported to the appropriate Incident to be reported to Site Manager and Estate Coordinator, for immediate remedy.	Condition Amber responses, plus the following additional responses; <ul style="list-style-type: none"> <li>• Temporary halting of activities and resuming when incident has been remedied.</li> <li>• Incident to be reported to Site Manager and Estate Coordinator.</li> <li>• Review OTMP and update where necessary.</li> </ul>
<b>Noise</b>	<b>Trigger</b>	Operational noise volume is in accordance with permissible and programmed volume constraints	Operational noise volumes are within 90% of the permissible volume constraints	Operational traffic volumes exceed permissible volume constraints
	<b>Response</b>	No action. Continue ongoing monitoring activities.	Review and investigate noisy operational activities, and where appropriate, implement additional remediation measures such as: <ul style="list-style-type: none"> <li>• Undertake additional noise surveys to review cause in more detail.</li> <li>• Review OTMP (and other sub-plans) and update where necessary.</li> <li>• Provide additional training to tenants to provide information on lowering noise emissions.</li> </ul>	Condition Amber responses, plus the following additional responses; <ul style="list-style-type: none"> <li>• Surveys of each tenancy shall be required to allow enforcement of site-specific thresholds.</li> <li>• Review OTMP and update where necessary.</li> <li>• Provide additional training to tenants to provide information on lowering noise emissions.</li> </ul>

## 7.3 Key Responsibilities

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### 7.3.1 Management

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Management of each respective business unit on-site shall ensure:

- All staff are provided with sufficient training to undertake the required tasks. This includes responsibility for measures to ensure that all staff and visitors are familiar with the Estate wide OTMP and will comply with their own site specific OTMP's.
- That all drivers of Goodman Tenanted facilities will not, in any manner, be knowingly overloaded.
- Operational noise levels remain nominal. In the event that noise is exceeded, then the tenant should undertake all feasible and reasonable mitigation and management measures to ensure noise levels are within acceptable levels. If noise levels cannot be kept below applicable limits, then a different operation method or equipment must be utilised.
- Drivers of Goodman Tenanted facilities transporting loose materials will have the entire load covered and/or secured to prevent any large items, excess dust or dirt particles depositing onto the roadway during travel to and from the site.
- Drivers of Goodman Tenanted facilities must be wholly within site before being required to stop, as well as loading and unloading materials.
- Loading areas and turning areas within site are expected to be kept clear at all times.
- All vehicles must enter and exit the Site in a forward direction.
- Management must not, by their actions or requirements, force or coerce employees or drivers to break the law.

### 7.3.2 Council

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Council shall commence proceedings for the approval and gazettal of Compass Drive for inclusion within the NHVR approved heavy vehicle network. The commencement of this process shall be underway prior to opening of the Estate.

Following the dedication of Estate roads to Council, it shall be the responsibility of Council to ensure the road environment is maintained to an acceptable standard. This includes (but not limited to) the maintenance of pot holes, lighting, and signage and line marking.

# Appendix F

## Event Notification Report

# EVENT NOTIFICATION REPORT

Plant Vehicle Property	Non work Related Motor Vehicle Accidents	Service Strike	Environmental	Injury	Break-in Theft	Conduct
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Date & Time Event Occurred	Event Reported by	Notification Form Completed by	Date Completed
Project Team	Names	Project Name	WHS Site Representative
Project Manager			
Site Supervisor			
Engineers			
Leading Hand/s			

<b>1. DETAILS</b>				
Event Description (Describe event using key words)				
Event first reported to		Date reported		Time reported
Event details (below) Details specific names, dates, times, equipment, organisation/s, etc.				
What activity was being undertaken? Who was involved, time & duration of activity in progress				
Location on site				
<b>INSERT OR ATTACH MAP / SKETCH &amp; PHOTOS TO NOTIFICATION</b>				
(Show location in relations to site and key areas – intersections, plant, activity, services, pot hole locations, survey pegs, chainages)				

<b>2. PERSONS INVOLVED / &amp; or near VICINITY</b>					
Names of Directly involved & Witnesses	Organisation	Position Title	Capacity of involvement (Direct / in-direct witness)	Contact No.	Statement Taken
					Y <input type="checkbox"/>
					Y <input type="checkbox"/>
					Y <input type="checkbox"/>
					Y <input type="checkbox"/>

<b>3. IMMEDIATE ACTION TAKEN</b> Tick items to signify the action taken immediately following the event occurring						
<input type="checkbox"/>	Secure area / isolate	<input type="checkbox"/>	Subcontractor Workers retained on site	<input type="checkbox"/>	Medical Centre Ambulance	Other:
<input type="checkbox"/>	Contacted Emergency services	<input type="checkbox"/>	Photos of scene / area	<input type="checkbox"/>	Spill control	
<input type="checkbox"/>	Notified asset owner	<input type="checkbox"/>	D & A testing	<input type="checkbox"/>	Statements	

6. EXTERNAL NOTIFICATIONS made at time of Event Occurrence					
Agency	Notified	Date / time notified	Agency	Notified	Date / time notified
SafeWork NSW (WHS Co-ord responsible)	<input type="checkbox"/>		Subcontractor PM responsible	<input type="checkbox"/>	
EPA / DPIE (ER responsible)	<input type="checkbox"/>		Police / Fire / Amb	<input type="checkbox"/>	
Asset Owner PM responsible	<input type="checkbox"/>		Police Event No. (if applicable)	<input type="checkbox"/>	
Client (Org) PM responsible	<input type="checkbox"/>		Other (Name)	<input type="checkbox"/>	

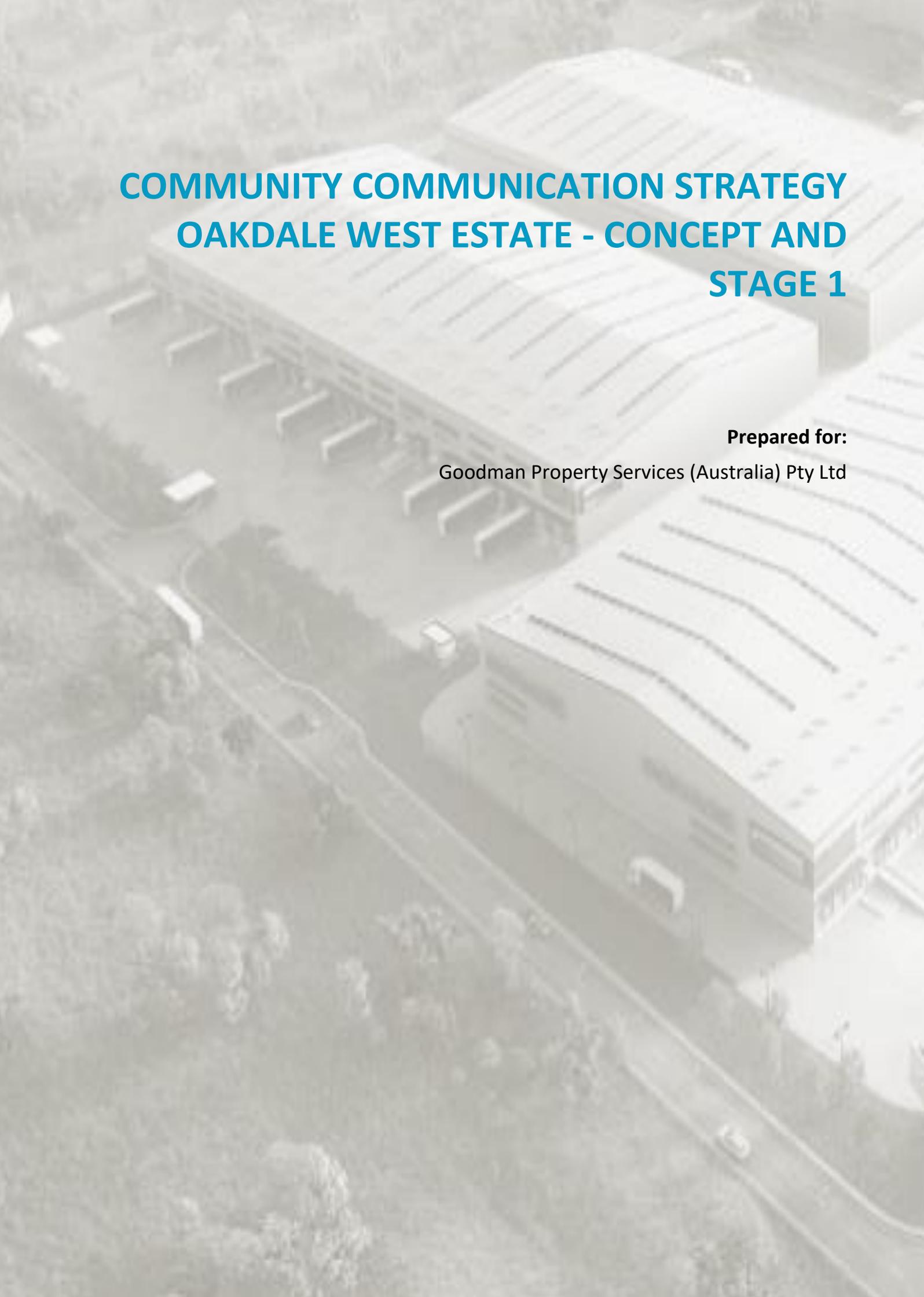
7. FACTORS CONTRIBUTING TO THE INCIDENT							
Environment			Equipment / materials				
<input type="checkbox"/>	Noise	<input type="checkbox"/>	Surface gradient / conditions	<input type="checkbox"/>	Tampering of plant / equipment	<input type="checkbox"/>	Plant or equipment failure
<input type="checkbox"/>	Lighting	<input type="checkbox"/>	Dust / fume	<input type="checkbox"/>	Inadequate maintenance	<input type="checkbox"/>	Material / equipment too heavy / awkward
<input type="checkbox"/>	Vibration	<input type="checkbox"/>	Slip / trip hazard	<input type="checkbox"/>	Inadequate guarding	<input type="checkbox"/>	Plant or equipment unsuitable
<input type="checkbox"/>	Weather	<input type="checkbox"/>	Time production pressures	<input type="checkbox"/>	Other:		
Work systems			People				
<input type="checkbox"/>	Hazard no identified	<input type="checkbox"/>	No / inadequate risk assessment conducted	<input type="checkbox"/>	No / Not followed Procedure	<input type="checkbox"/>	Drugs / alcohol
<input type="checkbox"/>	Hazard not reported	<input type="checkbox"/>	No / inadequate controls implemented	<input type="checkbox"/>	Fatigue	<input type="checkbox"/>	Stress/ Pressures
<input type="checkbox"/>	No/inadequate safe work procedure	<input type="checkbox"/>	Inadequate training / supervision	<input type="checkbox"/>	Change of routine	<input type="checkbox"/>	Distraction / personal issues / stress
<input type="checkbox"/>	Inadequate planning	<input type="checkbox"/>	Other:	<input type="checkbox"/>	Lack of communication	<input type="checkbox"/>	Other:
Comment on selection							

8. CORRECTIVE ACTIONS				
Actions	Assigned to	Completion date	Date complete	Verified by

9. PM AND ER TO COMPLETE				
Matter has been reviewed, recorded, and correctly notified?			Yes <input type="checkbox"/>	No <input type="checkbox"/>
PM Signature:		ER Signature:		
Date:		Date:		

# Appendix G

## Community Consultation Strategy



# COMMUNITY COMMUNICATION STRATEGY OAKDALE WEST ESTATE - CONCEPT AND STAGE 1

**Prepared for:**  
Goodman Property Services (Australia) Pty Ltd

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## BASIS OF REPORT

This report has been prepared by SLR Consulting Australia Pty Ltd (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Goodman Property Services (Australia) Pty Ltd (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.

## DOCUMENT CONTROL

Reference	Date	Prepared	Checked	Authorised
660.20005.00000-R01-v8.0	29 September 2022	Kate McKinnon	Alanna Ryan	Alanna Ryan
660.20005.00000-R01-v7.0	22 April 2022	Chelsey Zuiderwyk	Adam Williams	Adam Williams
660.20005.00000-R01-v6.0	11 November 2019	Kate McKinnon	Samantha Hayes	Dan Thompson

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# 1 Introduction

## 1.1 Background

This Community Communication Strategy (CCS) has been prepared on behalf of Goodman Property Services (Australia) Pty Ltd (Goodman) for the Oakdale West Estate (OWE) Concept and Stage 1 development (State Significant Development [SSD] application 7348).

This CCS has been prepared in accordance with Condition C19 and supporting conditions within the Development Consent, identifying relevant stakeholders, key issues and the communication methods. Specifically, it details how Goodman and their contractors will engage with relevant stakeholders and the community. The CCS integrates with the Construction Environmental Management Plan (CEMP) and associated suite of documents to provide a comprehensive guide and benchmark for the construction process that aligns with the Development Consent conditions.

## 1.2 Purpose

The OWE project has been assessed and determined under Division 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The CCS includes the following key aspects:

- Identification of stakeholders to be consulted with during the CCS implementation including adjacent landowners and residents, key stakeholders, relevant agencies and the wider community.
- The tools and actions to be undertaken throughout the construction program to disseminate information to the identified stakeholders, providing opportunities for comment.
- Enquiry and Complaint management protocols.
- Monitoring and feedback mechanisms.

The CCS will be updated as the project progresses to account for variations in the construction program and methodology, along with changes in stakeholder situation that impacts on stakeholder interests, with these articulated through the feedback mechanisms. This CCS will also be updated to address the operational phase of the development during the preparation of the Operational Environmental Plan (OEMP) for the Estate.

SSD 7348 contained the following conditions of relevance to this CCS used to benchmark the contents:

- C19 & C20 – Community Communication Strategy
- D37 – Landscaping
- D71 – Hours of Work
- D117 – Ongoing Community Engagement
- D118 - Management Plan Requirements
- D127 & D128 – Environmental Representative
- D133 – Document Review
- D143 – Access to Information

The details of these conditions are identified within **Table 1** below, along with a cross reference to the relevant section of this CCS.

The approved development includes the construction of the Western North-South Link Road (WNSLR). This road is to be constructed to Roads and Maritime Service (RMS) specifications, to the satisfaction of Penrith City Council (as the Nominated Road Authority). Details of these specifications as they relate to community consultation and communication are identified within **Table 2**, including cross reference to the relevant section of this CCS.

**Table 1 Relevant Conditions of Consent**

Condition Number	Condition Detail	Report Reference
C19 – Community Communication Strategy	<p>No later than one month before the commencement of construction of any stage of the Development, a Community Communication Strategy (CCS) must be prepared and submitted to the Planning Secretary for approval. The CCS is to provide mechanisms to facilitate communication between the Applicant, Council and the community (including adjoining affected landowners, schools, businesses, and others directly impacted by Stage 1), during design, construction and operation. The CCS must:</p> <ul style="list-style-type: none"> <li>a) assign a central contact person to keep the nearby sensitive receivers regularly informed throughout the Development;</li> <li>b) detail the mechanisms for regularly consulting with the local community throughout the Development, such as holding regular meetings to inform the community of the progress of the development and report on environmental monitoring results;</li> <li>c) detail a procedure for consulting with nearby sensitive receivers to schedule high noise generating works, vibration intensive activities or manage traffic disruptions;</li> <li>d) include contact details for key community groups, relevant regulatory authorities, Registered Aboriginal Parties and other interested stakeholders; and</li> <li>e) include a complaints procedure for recording, responding to and managing complaints, including: <ul style="list-style-type: none"> <li>i. email, contact telephone number and postal addresses for receiving complaints;</li> <li>ii. advertising the contact details for complaints before and during operation, via the local newspaper and through onsite signage;</li> <li>iii. a complaint register to record the date, time and nature of the complaint, details of the complainant and any actions taken to address the complaint; and</li> <li>iv. procedures for the resolution of any disputes that may arise during the course of the Development.</li> </ul> </li> </ul>	<p>This CCS Document</p> <ul style="list-style-type: none"> <li>a) Section 4</li> <li>b) Section 5</li> <li>c) Sections 5 &amp; 6</li> <li>d) Section 2.2</li> <li>e) Section 5.4</li> </ul>
C20 – Community Communication Strategy	<p>The Applicant must:</p> <ul style="list-style-type: none"> <li>a) not commence construction of the relevant stage of the Concept Proposal until the CCS required under Condition C19 has been approved by the Planning Secretary; and</li> <li>b) implement the CCS for each stage of the Concept Proposal and following the completion of operation of the Development.</li> </ul>	<ul style="list-style-type: none"> <li>a) Section 1.2</li> <li>b) Sections 5 &amp; 6</li> </ul>
D37 – Landscaping	<p>The Applicant must complete the landscape bund along the western boundary of the Site as shown on Figure 5 in Appendix 2 within six months of commencing any construction including bulk earthworks.</p>	<p>Section 2.2.1 Appendix A</p>

Condition Number	Condition Detail	Report Reference
D71 – Hours of Work	<p>Works outside of the hours identified in Condition D70 may be undertaken in the following circumstances:</p> <ul style="list-style-type: none"> <li>a) works that are inaudible at the nearest sensitive receivers;</li> <li>b) works agreed to in writing by the Planning Secretary;</li> <li>c) for the delivery of materials required outside these hours by the NSW Police Force or other authorities for safety reasons; or</li> <li>d) where it is required in an emergency to avoid the loss of lives, property or to prevent environmental harm.</li> </ul>	Section 5.3.2
D117 – Ongoing Community Engagement	<p>The Applicant must consult with the community regularly throughout Stage 1, including consultation with the nearby sensitive receivers identified in Appendix 5, relevant regulatory authorities, Registered Aboriginal Parties and other interested stakeholders. Community engagement shall be undertaken in accordance with the Community Communication Strategy approved in accordance with Condition C19.</p>	Sections 5 & 6
D118 – Management Plan Requirements	<p>Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:</p> <ul style="list-style-type: none"> <li>e) details of: <ul style="list-style-type: none"> <li>i. the relevant statutory requirements (including any relevant approval, licence or lease conditions);</li> <li>ii. any relevant limits or performance measures and criteria; and</li> <li>iii. the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, Stage 1 or any management measures;</li> </ul> </li> <li>f) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;</li> <li>g) a program to monitor and report on the: <ul style="list-style-type: none"> <li>i. impacts and environmental performance of Stage 1; and</li> <li>ii. effectiveness of the management measures set out pursuant to paragraph (b) above;</li> </ul> </li> <li>h) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;</li> <li>i) a program to investigate and implement ways to improve the environmental performance of Stage 1 over time;</li> <li>j) a protocol for managing and reporting any: <ul style="list-style-type: none"> <li>i. incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria);</li> <li>ii. complaint;</li> <li>iii. failure to comply with statutory requirements; and</li> </ul> </li> <li>k) a protocol for periodic review of the plan.</li> </ul> <p>Note: The Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.</p>	<ul style="list-style-type: none"> <li>a) Refer to Project CEMPs (SLR, 2019a &amp; SLR 2019b)</li> <li>b) Sections 3.2, 5.3 and 5.4</li> <li>c) Section 6</li> <li>d) Section 5.4.4</li> <li>e) Section 6</li> <li>f) Section 5.4</li> <li>g) Section 6</li> </ul>

Condition Number	Condition Detail	Report Reference
D127 - Environmental Representative	<p>For the duration of construction of Stage 1, or as agreed with the Planning Secretary, the approved ER must:</p> <ul style="list-style-type: none"> <li>(a) receive and respond to communication from the Planning Secretary in relation to the environmental performance of Stage 1;</li> <li>(b) consider and inform the Planning Secretary on matters specified in the terms of this consent;</li> <li>(c) consider and recommend to the Applicant any improvements that may be made to work practices to avoid or minimise adverse impact to the environment and to the community;</li> <li>(d) review the CEMP identified in Condition D119 and any other documents that are identified by the Planning Secretary, to ensure they are consistent with requirements in or under this consent, and if so: <ul style="list-style-type: none"> <li>(i) make a written statement to this effect before submission of such documents to the Planning Secretary (if those documents are required to be approved by the Planning Secretary); or</li> <li>(ii) make a written statement to this effect before the implementation of such documents (if those documents are required to be submitted to the Planning Secretary/Department for information or are not required to be submitted to the Planning Secretary/Department);</li> </ul> </li> <li>(e) regularly monitor the implementation of the CEMP, and any other documents identified by the Planning Secretary, to ensure implementation is being carried out in accordance with the document and the terms of this consent;</li> <li>(f) as may be requested by the Planning Secretary, help plan, attend or undertake audits of Stage 1 commissioned by the Department including scoping audits, programming audits, briefings, and site visits;</li> <li>(g) as may be requested by the Planning Secretary, assist the Department in the resolution of community complaints;</li> <li>(h) prepare and submit to the Planning Secretary and other relevant regulatory agencies, for information, an Environmental Representative Monthly Report providing the information set out in the Environmental Representative Protocol under the heading "Environmental Representative Monthly Reports." The Environmental Representative Monthly Report must be submitted within seven calendar days following the end of each month for the duration of the ER's engagement, or as otherwise agreed with the Planning Secretary.</li> </ul>	Section 6.2
D128 - Environmental Representative	<p>The Applicant must provide the ER with all documentation requested by the ER in order for the ER to perform their functions specified in Condition D127 (including preparation of the ER monthly report), as well as:</p> <ul style="list-style-type: none"> <li>(a) the complaints register; and</li> <li>(b) a copy of any assessment carried out by the Applicant of whether proposed work is consistent with the consent (which must be provided to the ER before the commencement of the subject work).</li> </ul>	Section 6.2

Condition Number	Condition Detail	Report Reference
D133 Revision of Strategies, Plans and Programs	<p>Within three months of:</p> <ul style="list-style-type: none"> <li>(a) the submission of a Compliance Report under Condition D141;</li> <li>(b) the submission of an Environmental Representative Monthly Report under Condition D127;</li> <li>(c) the submission of an incident report under Condition D135;</li> <li>(d) the approval of any modification of the conditions of this consent; or</li> <li>(e) the issue of a direction of the Planning Secretary under Condition D2(b) which requires a review</li> </ul> <p>the strategies, plans and programs required under this consent must be reviewed.</p>	Section 6.2
D143 – Access to Information	<p>At least 48 hours before the commencement of construction until the completion of all works under this consent, the Applicant must:</p> <ul style="list-style-type: none"> <li>a) make the following information and documents (as they are obtained or approved) publicly available on its website: <ul style="list-style-type: none"> <li>i. the documents referred to in Condition D2 of this consent;</li> <li>ii. all current statutory approvals for the Development;</li> <li>iii. all approved strategies, plans and programs required under the conditions of this consent;</li> <li>iv. the proposed staging plans for the Development if the construction, operation or decommissioning of the Development is to be staged;</li> <li>v. regular reporting on the environmental performance of the Development in accordance with the reporting requirements in any plans or programs approved under the conditions of this consent;</li> <li>vi. a comprehensive summary of the monitoring results of the Development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs;</li> <li>vii. a summary of the current stage and progress of the Development;</li> <li>viii. contact details to enquire about the Development or to make a complaint;</li> <li>ix. a complaint register, updated monthly;</li> <li>x. the Compliance Report of the Development;</li> <li>xi. audit reports prepared as part of any monitoring or environmental audit of the Development and the Applicant’s response to the recommendations in any audit report;</li> <li>xii. any other matter required by the Planning Secretary; and</li> </ul> </li> <li>b) keep such information up to date, to the satisfaction of the Planning Secretary.</li> </ul>	Section 5.3.1

It is a requirement of the RMS that communications and community liaison are undertaken in accordance with the RMS QA Specification G36 – Environmental Protection. All relevant requirements within the specification are included in **Table 2** below.

**Table 2 Relevant RMS Specifications**

Specification Number	Relevant Specification Detail	Report Reference
<p>3.3 - Resources, Responsibilities and Authority</p>	<p>Communications and Community Liaison Representative</p> <p>Appoint a Communications and Community Liaison Representative (CCLR) to lead and manage the community involvement activities, including liaison with property owners and key stakeholders. This person is your representative for the requirements of RMS G36 Clause 3.7.</p> <p>The CCLR must have relevant qualifications with a minimum of 5 years' communications and community liaison experience, preferably in infrastructure development and delivery. The CCLR must be flexible and willing to work outside of normal working hours when required, such as nights and weekends. The CCLR is to be the primary daily contact to the public handling of enquiries/complaints management/interface issues.</p> <p>The CCLR must be available for contact by local residents and the community at all reasonable times to answer any questions and to address any concerns in relation to your construction activities. The CCLR must have up-to-date information on:</p> <ul style="list-style-type: none"> <li>• emerging stakeholders;</li> <li>• planned construction activities;</li> <li>• planned traffic arrangements, including any temporary traffic switches;</li> <li>• current landowner discussions with members of your staff;</li> <li>• planned community and stakeholder consultations;</li> <li>• complaints or enquiries received;</li> <li>• duties and accountabilities of your staff; and,</li> <li>• commitments to stakeholders made by you or Goodman.</li> </ul> <p>The CCLR is to handle document management administration and systems/contact database management and maintenance. The CCLR is to liaise with property owners to co-ordinate access and to deal with specific property related issues arising from the upgrade works. The CCLR is to lead in the development and delivery of communication and community engagement strategies and plans.</p> <p>The CCLR is to facilitate meetings, forums and arranging interviews to address concerns from community.</p> <p>The CCLR is to provide advice and participate with the project teams to improve and enhance the delivery of communication services to the community. The CCLR is to build, maintain collaborative and consultative working relationships with internal and external stakeholders.</p> <p>The CCLR is to possess excellent writing and digital media skills including writing and editing copy for printed and electronic material, internal and external materials such as letters, web brochures and public facing reports, and video and photography for promotional use, etc. The CCLR is to possess a current motor vehicle driver's licence.</p> <p>The CCLR must be available for contact by local residents, key stakeholders and community representatives to answer queries and provide more information or feedback.</p>	<p>Section 4</p>

Specification Number	Relevant Specification Detail	Report Reference
3.7 - Communications	<p>Describe in the CEMP the processes for external and internal communication in relation to the environmental aspects of the work under the Contract.</p> <p>Make all staff and subcontractors working on the Site aware of these external and internal communications procedures and ensure they are properly trained in their application.</p>	<p>Refer to Project CEMPs (SLR, 2019a &amp; SLR 2019b)</p> <p>Section 5.3</p>
3.7.1 - Liaison with EPA and/ or other Government Agencies	<p>The CEMP must identify at least two persons (together with their contact telephone numbers) who will be available to be contacted by the EPA and/ or Other Government Agencies on a 24 hour basis and who have authority to take immediate action to shut down any activity, or to effect any pollution control measure, as directed by an authorised officer of the EPA and/ or Other Government Agencies.</p> <p>Immediately notify Goodman of any visit to the Site by the EPA and/ or Other Government Agencies. Prepare a report for each occasion when the Site is visited by the EPA and/ or Other Government Agencies, notifying Goodman of the purpose and outcome of the EPA and/ or Other Government Agencies visit, and of all actions taken by you in response to the EPA and/ or Other Government Agencies visit. Submit this report to Goodman within one working day of the EPA and/ or Other Government Agencies site visit.</p>	Section 4
3.7.2 - Community Liaison and/or Notification  3.7.2.1 New or Changed Construction Activities	<p>Notify local residents and other stakeholders about any new or changed construction activities including changes to bus stop locations and / or timetables which will affect access to their properties/ premises at least five 5 working days before commencing work affecting residents.</p> <p>Such notification must state the nature of the work, why it is necessary, the expected duration, details of any changes to the traffic arrangements or property access and the name and 24 hour contact telephone number of your representative who can respond to any resident/stakeholder concerns.</p> <p>Address any concerns raised by residents in accordance with the complaints procedure as required under Clause 3.7.3 and in accordance with any licence or approval held by you.</p>	Section 5.3.2
3.7.2.2 - Extended Working Hours – No Environmental Protection Licence	<p>Following approval from Goodman on each instance to extend working hours, inform affected residents by letter of the location, nature, scope and duration of the proposed work outside normal working hours, not less than 1 week and not more than 2 weeks, before commencing such work.</p> <p>Include the name and contact telephone number of your representative so that residents can contact him over any concerns about extended working hours and any other information required by any licence or approval held by you.</p> <p>Refer to Practice Note vii of RMS publication “Environmental Noise Management Manual” when preparing the letter and notifying the affected residents.</p>	Section 5.3.2

Specification Number	Relevant Specification Detail	Report Reference
3.7.3 - Complaints and Enquiries Management	<p>As part of your CEMP, prepare and implement a Construction Complaints and Enquiries Management procedure prior to the commencement of construction. You must follow the Construction Complaints and Enquiries Management procedure for the duration of construction. You must ensure your Construction Complaints and Enquiries Management procedure is consistent with AS 4269 "Complaints Handling". This must include:</p> <ul style="list-style-type: none"> <li>a) an advertised 24 hour contact telephone number listed with a telephone company and include a contact name;</li> <li>b) a postal address to which written complaints and enquiries can be sent;</li> <li>c) an email address to which electronic complaints and enquiries can be sent;</li> <li>d) a procedure to receive, record, track and respond to complaints and enquiries within a specified timeframe. When a complaint or enquiry cannot be responded to immediately, a follow-up verbal response on what action is proposed must be provided to the complainant/enquirer within two hours during night-time works and 24 hours at other times;</li> <li>e) a process for the provision of a written response to the complainant/enquirer within ten (10) days, if the complaint or enquiry cannot be resolved by the initial or follow-up verbal response;</li> <li>f) a mediation system for complaints unresolved through the above system.</li> </ul> <p>Within one working day of receiving a complaint about any environmental or other issue which has the capacity to damage Goodman’s reputation, including any pollution incidents, arising from the Work Under the Contract, submit a written report to Goodman detailing the complaint and the action taken to remedy the problem. A final report together with your proposed measures to prevent the recurrence of such incidents must be submitted to Goodman within 5 working days.</p> <p>Keep a register of all complaints or enquiries, which must include the following details:</p> <ul style="list-style-type: none"> <li>(a) date and time of complaint or enquiry;</li> <li>(b) method by which the complaint or enquiry was made (telephone, letter, meeting, etc);</li> <li>(c) name, address, contact telephone number of complainant (if no such details were provided, a note to that effect);</li> <li>(d) nature of complaint or enquiry;</li> <li>(e) action taken in response including follow up contact with the complainant.;</li> <li>(f) any monitoring to confirm that the complaint or enquiry has been satisfactorily resolved;</li> <li>(g) if no action was taken, the reasons why no action was taken by you.</li> </ul>	Section 5.4

Specification Number	Relevant Specification Detail	Report Reference	
3.7.4 - Notification to communities and stakeholders	Notify Goodman in advance of the following construction activities:		
	<b>Activity</b>	<b>Notification required</b>	
	Work at night (any time between 6pm and 7am)	2 weeks where possible, a minimum of 1 week	
	Work on weekends (including public holidays)	2 weeks where possible, a minimum of 1 week	
	Major changes to configuration of road traffic	At least 4 weeks	
	Impacts on pedestrians and/or bicyclists	At least 4 weeks	
	Commencement, rescheduling or completion of key construction activities	At least 4 weeks for commencement and completion, 24 hours' notice for rescheduling	
	Commencement or rescheduling of property adjustment work	At least 2 weeks (4 weeks for businesses)	
	Alteration to property access arrangements	At least 4 weeks	
	Other activities not identified above which may impact on the community stakeholders	At least 24 hours	
Any form of community protest on site	Immediately		
<p>In your communications with the community, you must comply with the requirements of the Privacy and Personal Information Protection Act 1998 (NSW).</p> <p>You must not make any undertakings on behalf of Goodman without the prior written approval of Goodman. Comply with the distribution for various notification types as follow:</p>		Sections 5.3.2	
<b>Notification Type</b>	<b>Submission to Goodman</b>		<b>Distribution</b>
Out of Hours Works / Night Works (refer to clause 3.7.2.3)	Draft a notification letter at least 24 hours prior to the works being carried out		2 weeks where possible, a minimum of 1 week prior to the works being carried out
Traffic Conditions	Draft letter at least 4 weeks prior to the traffic conditions changing		At least 5 business days prior to the traffic conditions changing if deemed necessary by Goodman
Individual private properties regarding property adjustments or	Draft letter at least 4 weeks prior to	At least 2 weeks prior to the works being	

Specification Number	Relevant Specification Detail			Report Reference
	changes to access (refer to clause 3.7.2.1)	the works being carried out	carried out of access changes	
	Access for bridgeworks over the Water NSW pipelines	Final draft of notification at least 4 weeks prior to be works being carried out	At least 4 weeks prior to the works being carried out	
	Individual businesses regarding property adjustments or changes to access (refer to clause 3.7.2.1)	Draft letter at least 4 weeks prior to the works being carried out	At least 4 weeks prior to the works being carried out of access changes	

### 1.3 Community Communications Strategy Scope

The CCS applies to works and operations undertaken by Goodman, their engaged contractors and future tenants of the estate.

Stage 1 comprises two components with separate contractors engaged for each:

- Bulk earthworks across the site, civil infrastructure and landscaping; and construction of warehousing within Precinct 1 (Stage 1).
- Construction of the WNSLR including a signalised intersection with Lenore Drive, roundabout with Lockwood Road and roundabout with the new internal Estate Road No. 1, earthworks, civil works, utility works, property adjustments and landscaping. A haul road will be constructed through Oakdale West (referred to as the Construction Access Road) as part of the WNSLR construction to provide access to the WNSLR corridor.

Stages 2 to 8 will continue to engage contractors for the construction of each building (see **Figure 4**).

For the construction phase of the project, the CCS applies to all stages of development and separate CEMPs have been prepared to address each component of Stage 1, and separate CEMPs will continue to be prepared for the construction of each building in Stages 2 to 8. All CEMPs reference this CCS and will be serviced by the same project website and phone number to provide a simplified and consistent communications process across the project.

For the operation of these developments, an estate-wide OEMP has been prepared, as well as individual OEMPs for each building. All OEMPs reference this CCS and also include additional information within the OEMP to ensure Condition C19(e) of SSD 7348 is clearly addressed for each tenancy’s operation.

### 1.4 Project Description

#### 1.4.1 State Significant Development Approvals

SSD 7348 was approved on 13 September 2019, granting approval for the Stage 1 Development and Concept Approval for the Oakdale West Industrial Estate at Kemps Creek. The development, as approved under SSD 7348 and approved modifications are included in **Table 3** below.

**Table 3 Approved Development and Modifications**

Application Number	Development Description
SSD 7348	<p>A Concept Proposal including:</p> <ul style="list-style-type: none"> <li>• concept layout of 22 warehouse buildings inclusive of dock offices and ancillary offices providing 476,000 square metres of gross lettable area, built over five development stages;</li> <li>• concept layout of development lots, internal roads, drainage, landscaping, noise walls, basins and biodiversity offsets; and</li> <li>• development controls</li> </ul> <p>A Stage 1 Development including:</p> <ul style="list-style-type: none"> <li>• bulk earthworks across all five stages including retaining walls and noise walls;</li> <li>• lead in services including but not limited to drainage, power, sewer, water and telecommunications;</li> <li>• service infrastructure to Precinct 1, including drainage, power, sewer, water and telecommunications;</li> <li>• construction and operation of three warehouse buildings inclusive of dock offices and ancillary offices in Precinct 1 (1A, 1B and 1C) providing 118,000 square metres of gross lettable area;</li> <li>• Western North-South Link Road and associated subdivision, basins and drainage;</li> <li>• estate roads 1, 2 and 6 and eastern part of road 7;</li> <li>• landscaping of Stage 1, the western boundary, Western North-South Link Road, estate roads 1, 2 and 6 and the eastern part of road 7, detention basins and the amenity lot</li> <li>• subdivision of Stage 1 lots and road</li> <li>• infrastructure including the services (substation) lot;</li> <li>• stormwater drainage infrastructure for Lots 2A and 2B and all basins;</li> <li>• temporary works to facilitate construction including but not limited to swales, haul road (construction access), landscaping and basins; and</li> <li>• works including construction of traffic signals at Lenore Drive/Grady Crescent/WNSLR intersection.</li> </ul>
SSD 7348 MOD 1	<p>Minor amendments to pad levels, stormwater changes and refinement of the infrastructure design of OWE has resulted in the need for minor amendments to the approved masterplan layout and necessitates minor modifications to SSD 7348.</p>
SSD 7348 MOD 2	<p>Modifications to the Oakdale West Estate approved concept plan and Stage 1 development, including master plan layout, increase in gross floor area and expansion of Building 1A (Warehouse building 1A including high-bay (39m) and low-bay (28m) components), changes to internal roads, civil design and building pad levels.</p>
SSD 7348 MOD 3	<p>Amendments to the Concept Proposal:</p> <ul style="list-style-type: none"> <li>• the OWE layout and staging</li> <li>• precinct boundaries</li> <li>• reconfigure estate road layout</li> <li>• basic design and infrastructure (including building height, basins, noise wall, pad levels and GLA)</li> <li>• civil strategy and servicing strategy</li> <li>• development standards applicable to the site including a height increase for Building 2B from 15 m to 28m and applicable noise limits for the development.</li> </ul> <p>Amendment to the Stage 1 Development:</p>

Application Number	Development Description
	<ul style="list-style-type: none"> <li>• construction of estate road 03, roundabout, retaining wall, noise wall, basins and infrastructure</li> <li>• subdivision of estate roads</li> <li>• extension to noise wall</li> <li>• change to pad levels, bulk earthworks and landscaping and construction hours.</li> </ul>
SSD 7348 MOD 4	Inclusion of an additional lot (Lot 9 DP 1157476) in the subject site and carrying out works in the additional lot to facilitate development of the WNSLR
SSD 7348 MOD 5	<p>Concept Approval</p> <ul style="list-style-type: none"> <li>• Update Condition B10 to reflect the 17m building setback to the Southern Link Road</li> <li>• Update Masterplan Landscape Plan reference to reflect the widened road reserve for the Southern Link Road.</li> </ul> <p>Stage 1 Approval</p> <ul style="list-style-type: none"> <li>• Update Architectural, Civil, and Landscaping plans to reflect the proposed design changes on Lot 1.</li> <li>• Change incorrect figure reference in Condition D75A from Figure 7 to Figure 6.</li> <li>• Change in correct figure reference in Condition D75C from Figure 7B to Figure 7 and update this condition D75 C to reflect the revised noise barrier completion date.</li> <li>• Update Condition D93 to reflect revised location for biodiversity planting</li> </ul>
SSD 7348 MOD 6	Amendments to the approved Concept Plan and Stage 1 development including changes in Precincts 2A, 2C, 2D, 2E layouts, increase in building height control for Precinct 2A, and inclusion of construction Estate Road 8 as part of Stage 1 development.
SSD 7348 MOD 7	Changes to Precincts 3 and 4 including earthworks, retaining walls, building layouts in Precinct 4 and estate road 7.
SSD 7348 MOD 8	Amendments to architectural plans for Stage 1 Buildings 1A, 1B and 1C.
SSD 7348 MOD 9	Amendments to the layout of Buildings 2A, 2C and 2D and increased height of Building 2C
SSD 7348 MOD 10	Updates to the Concept plan to update Precinct 5 layout and update to Precinct 1 signage plans, including façade signage

Further project details are located in the Environmental Impact Statement, Oakdale West Estate, State Significant Development Application (EIS) (Urbis, 2017) and Response to Submissions (RTS) and SSD 7348 Modification Reports, available on the Major Projects Portal.

**Table 4** below identifies the site layout, which is a ‘Master Plan’ to guide the staged development of Oakdale West and core development controls that will form the basis for design and assessment of future development applications for the site. **Figure 2** shows further detail of the WNSLR plans for the estate.

### 1.4.2 Site works

The site works for the estate will be undertaken by two contractors, with specific areas of responsibility. Areas of responsibility comprise the bulk earth works, civil infrastructure and services, along with the Stage 1 built form development. A second contractor is engaged for the WNSLR connection north to Lenore Drive and haul road civil works through to the south west corner of the site:

The project involves construction activities including:

- Site establishment.
- Clearing and stripping.
- Site construction access.
- Demolition of existing buildings.
- Sediment erosion control works.
- Bulk earthworks and haulage of materials.
- Signage and fencing.
- Construction of civil infrastructure including access roads, bridge, drainage, retaining walls and utilities.
- Building construction and landscaping within Stage 1.

Contractors will continue to be engaged separately for the construction of each building for Stages 2 to 8 (see **Figure 3**).





Figure 2 WNSLR Plans

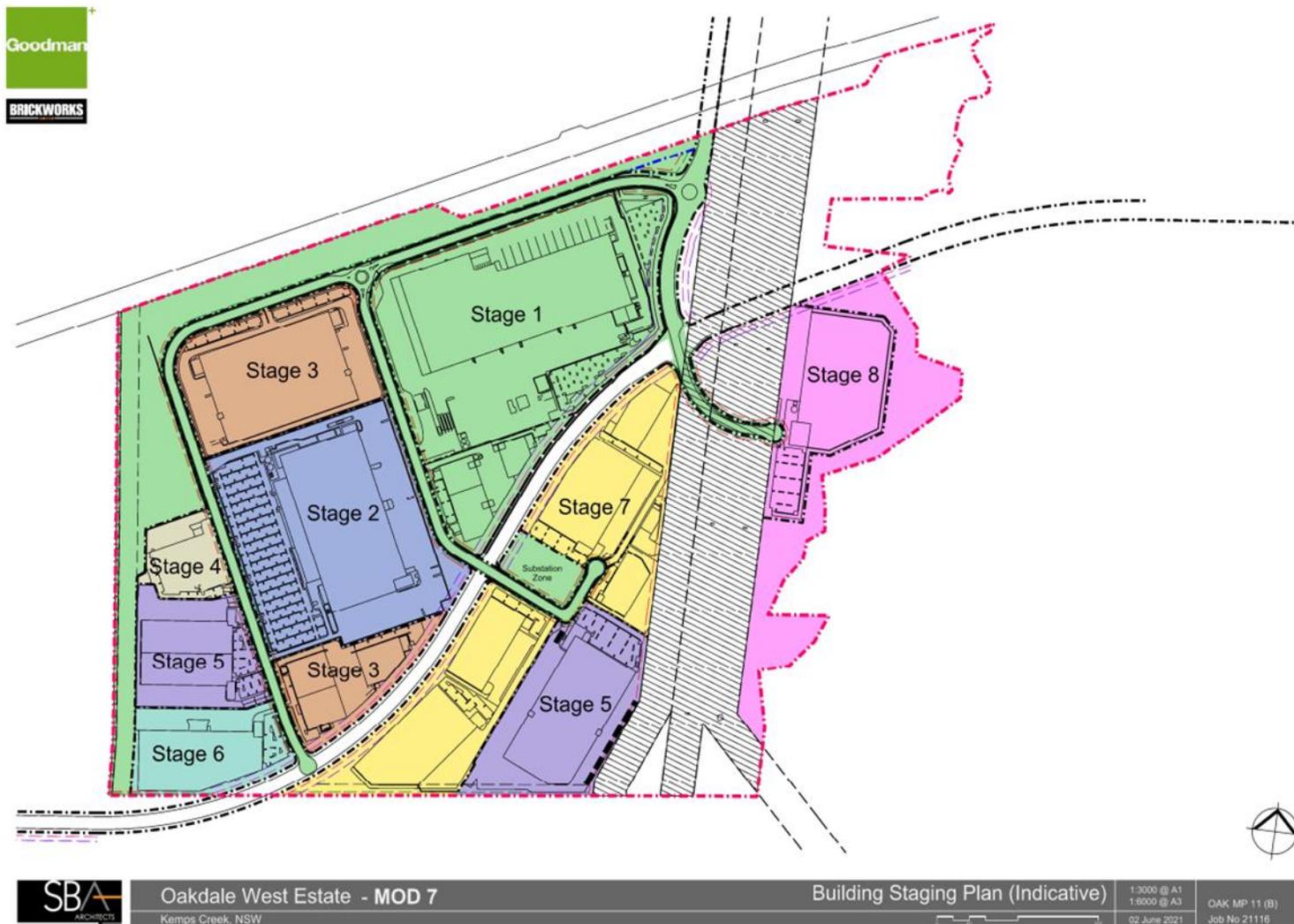


Figure 3 Oakdale West Staging Plan

## 2 Stakeholder Identification

### 2.1 Community Overview

The site comprises historic agricultural land identified within the Western Sydney Employment Area (WSEA). The site is located across two Australian Bureau of Statistics (ABS) geographical boundaries, with Erskine Park to the north and Kemps Creek to the south. The ABS data below has been used to inform the communications methodology, with appropriate media and language used to reflect the statistical data.

#### 2.1.1 Erskine Park

Erskine Park has a population of 6,436 accommodated in 2,016 dwellings. The median age is 34 compared to a State median of 38. The top ancestry response is Australian, followed by English, Irish, Scottish then Filipino, with languages other than English spoken at home comprising Arabic (2.6%), Tagalog (2.4%), Filipino (1.4%), then Hindi (1.2%).

17.7% of the Erskine Park population completed Year 12 compared to 15.3% for the State, with 66% of the population employed full time compared to a State average of 59.2%. Management comprised the highest percentage of employment, equating to 19.5%, with a median weekly income of \$781, compared to \$664 for the State.

#### 2.1.2 Kemps Creek

Kemps Creek has a population of 2,268 accommodated in 700 dwellings. The median age is 41 compared to a State median of 38. The top ancestry response is Italian, followed by Australian, English, Lebanese then Maltese, with languages other than English spoken at home comprising Italian (10.1%), Arabic (6.4%), Cantonese (4.3%), then Assyrian Neo-Aramaic (3%).

14.2% of the Kemps Creek population completed Year 12 compared to 15.3% for the State, with 58.4% of the population employed full time compared to a State average of 59.2%. Clerical and Administrative Workers comprised the highest percentage of employment, equating to 20%, with a median weekly income of \$588, compared to \$664 for the State.

### 2.2 Key Stakeholders

The site is located in close proximity to sensitive receivers to the west comprising a Catholic School, Anglican School and Age Care facility, along with a number of dwellings to the south. The northern and eastern boundaries comprise environmental corridors and infrastructure. Goodman and their representatives carried out extensive consultation with the community and stakeholders during the development of the EIS (Urbis, 2017). Previously identified stakeholders are categorised in **Table 4** below.

**Table 4 Key Stakeholders**

Stakeholder Agency/Authority	Interests/Issues
Directly affected stakeholders	Adjacent and directly affected properties, businesses and schools including: <ul style="list-style-type: none"> <li>• Residential property – 20 Aldington Road</li> <li>• Emmaus Catholic College</li> <li>• Trinity Catholic Primary School</li> <li>• Emmaus Retirement Village</li> <li>• Mamre Anglican School</li> <li>• Catholic Healthcare Emmaus Village</li> <li>• Little Smarties Early Learning Centre</li> </ul>
Local Councils	<ul style="list-style-type: none"> <li>• Penrith City Council</li> </ul>
State Government Departments and Offices	<ul style="list-style-type: none"> <li>• NSW EPA</li> <li>• NSW Heritage Office</li> <li>• NSW Biodiversity and Conservation Division, Department of Planning Industry and Environment</li> <li>• NSW Department of Industry</li> <li>• Roads and Maritime Service</li> <li>• Transport for NSW</li> <li>• NSW Rural Fire Service</li> <li>• WaterNSW</li> <li>• National Resources Asset Regulator</li> </ul>
Utility and Service Providers	<ul style="list-style-type: none"> <li>• TransGrid</li> <li>• Endeavour Energy</li> <li>• WaterNSW</li> <li>• Sydney Water</li> <li>• Jemena</li> <li>• NBN</li> <li>• Telstra</li> </ul>
Other Interested Parties	<ul style="list-style-type: none"> <li>• Registered Aboriginal Parties</li> </ul>

Contact details for the key stakeholders listed in **Table 4** above are included in **Appendix B & C**.

### 2.2.1 Properties receiving adjustments or architectural treatment and mitigating works

It is proposed to provide window glazing treatments to assist in acoustic attenuation to dwellings located at 20 Aldington Road, Kemps Creek.

A landscape bund is to be formed along the Western boundary of the development site to create an acoustic barrier to properties to the West. The location of the landscape bund is shown at **Appendix A**. The landscape bund shall be completed within 6 months of the commencement of any construction work, including bulk earthworks.

## 3 Key Issues Affecting Stakeholders

### 3.1 Previous Consultation

Goodman and their representatives have previously undertaken consultation with the community and stakeholders during the development of the project. Details of this consultation were included in the EIS (Urbis, 2017).

A total of 15 submissions were received, including one submission from a Local Council, three submissions from utilities providers, nine submissions from government authorities and two submissions from nearby properties and businesses. In response to the issues raised, Goodman revised several plans and consultant reports, which informed a Response to Submissions Report (Urbis, 2018a).

A further 10 submissions following these revisions were received and further modification to proposed plans and consultant reports were made, with a Supplementary Response to Submissions Report (Supplementary RTS) (Urbis, 2018b) prepared to the satisfaction of the determining authority.

For more information, refer to the Department of Planning and Environment's Major Project Assessments webpage at:

[http://majorprojects.planning.nsw.gov.au/index.pl?action=view\\_job&job\\_id=7348v](http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7348v)

### 3.2 Potential Issues and Strategies

Goodman are committed to ongoing proactive consultation with the community and stakeholders while understanding the importance of addressing potential issues and minimising construction and operational related impacts. **Table 5** outlines project issues that are likely or known to be of interest or concern to the community and stakeholders. The table also details communications related measures and strategies that Goodman will undertake to manage and mitigate impacts. The CEMP identifies management and mitigation measures to address those matters extending beyond consultation.

**Table 5 Issue Identification and Mitigation**

Potential Issue	Potential Key Impacts	Mitigation Strategy
Noise, Vibration and Dust	<p>Truck, machinery and light vehicle movements within, to and from the site, along with civil works have potential to result in negative impacts associated with noise, vibration and dust.</p> <p>Operations within the estate have the potential to emit noise and vibration with the potential to impact on nearby sensitive receivers.</p>	<p>Sensitive receivers and affected stakeholders will be consulted prior to actions likely to generate high levels of noise or vibration in accordance with Section 5.4.2 of this strategy.</p> <p>Up to date information on current and proposed works will be accessible to stakeholders and the wider public on the project web page.</p> <p>Additionally, should any works be likely to generate impacts beyond those identified within the approval’s documentation consultation would be undertaken with the applicable managing agency.</p> <p>The CEMP, along with the supporting Dust, Noise and Vibration management plans contain specific measures to manage these impacts. These management plans have been informed by commitments contained within the SSD approvals package, EPA standards and guidelines.</p> <p>The OEMP prepared for the OWE as well as individual OEMPs for each warehouse development will contain environmental management controls to address noise and vibration, as well as monitoring and contingency measures to be implemented.</p>
Stormwater, Sediment Control, Erosion, Water Quality	<p>High rainfall events could result in localised flooding.</p> <p>Construction could result in impacts to local water quality, associated with sediment laden runoff.</p>	<p>Surrounding sensitive receivers will be consulted with in relation to adjacent works regarding flooding and water quality issues, with these items discussed at regular meetings, or as they arise via the construction hotline, in accordance with Section 5.4.2 of this Strategy.</p> <p>The CEMP, along with the supporting Soil and Water Management Plan and Water Quality Monitoring Program identify specific mechanisms to manage and mitigate these impacts in accordance with the relevant Penrith City Council standards and commitments within the SSD approvals package.</p>
Construction Traffic	<p>A temporary increase in traffic movements may be experienced associated with the import of fill material, the movement of construction machinery to and from the site and the movement of workers light vehicles.</p>	<p>Sensitive receivers will be notified prior to actions likely to cause traffic disruption in accordance with Section 5.4.2 of this strategy.</p> <p>The CEMP and supporting Construction Traffic Management Plan and Fill Importation Plan identify specific mechanisms to manage and mitigate these impacts.</p>

Potential Issue	Potential Key Impacts	Mitigation Strategy
Operational Traffic	An increase in traffic movements may be experienced in the broader locality directly related to the operations of the OWE, including light vehicles and transport trucks.	An OEMP has been established for the overall OWE and individual OEMPs will be developed for each warehouse within the estate. All OEMPs will be informed by and will enforce measures prescribed within Operational Traffic Management Plans (OTMPs), which will be developed to ensure operational traffic volumes and behaviours do not adversely impact on the surrounding area. All vehicle operators related to the OWE will comply with a Driver's Code of Conduct, to ensure safety and respect for other road users and the surrounding community is upheld.
Local Infrastructure, Utilities and Services	Temporary interruption to existing services including surrounding roads may be required to allow for road connections and the extension of services to the site.	Affected receivers would be notified of possible service disruption via letter box drop and regular meetings, with these disruptions minimised where possible through implementation of the designs identified within the SSD approvals package, measures identified within the CEMP and subsequent engagement with utility providers.
Visual Amenity and Privacy	Visual impacts of earthwork and construction activities, along with potential impacts on the privacy of adjacent sensitive receivers.	Potentially affected receivers would be advised of works with the potential for impact via letter box drop and with these items discussed at regular meetings, or as they arise via the construction hotline, in accordance with Section 5.4.2 of this Strategy.  The CEMP identifies specific mechanisms to manage and mitigate these impacts.
Removal of Flora and Fauna	The project approval requires the removal of native and exotic flora and fauna to facilitate the development, with the associated potential for impacts on safety of immediately adjacent receivers, along with biodiversity and visual amenity.	Potentially affected receivers are likely to comprise those receivers immediately adjacent, who are to be advised of works with the potential for impact via letter box drop and regular meetings, or as they arise via the construction hotline, in accordance with Section 5.4.2 of this Strategy.  The CEMP, along with the supporting Flora and Fauna Management Plan identify specific mechanisms to manage and mitigate these impacts.
Out of Hours Work	The identified impacts could be magnified due to the works being carried out while surrounding receivers are more likely to be home in the early morning/evening, or asleep, with correspondingly lower background noise levels.	Out of hours works to only be undertaken where necessary and subject to endorsement from the applicable managing agency. Should out of hours work with the potential for impact be proposed the potentially affected receivers would be advised via letter box drop and/ or regular meetings in accordance with Section 5.4.2 of this Strategy.

Potential Issue	Potential Key Impacts	Mitigation Strategy
Aboriginal Heritage	There is the potential for encountering items of Aboriginal Heritage during excavation.	Monitoring of works by appropriately qualified personnel, along with the implementation of an unexpected finds protocol in consultation with Aboriginal Stakeholders and Heritage Division of the Department of Planning, Industry and Environment would be put in place, as discussed within Section 5.4.2 of this document.  The CEMP, along with the supporting Unexpected Finds Protocol (Heritage) identify specific mechanisms to manage and mitigate these impacts. .
Misinformation and Misunderstanding	Lack of project awareness within the wider community may result in complaints being raised by those unaware of the extent of the approval, with these complaints not directed through the appropriate project hotline.  Unauthorised release of project information by the project team to the media, stakeholders or the community has potential to impact on project perception in the community.	The CCS includes measures at Section 5.4.2 to provide regular updates in plain language, supported by imagery to stakeholders and the wider community through public and private media.  Contact details including the hotline details will be provided on site, the project web page and in all information issued.
Emergency Event	Unforeseen emergency with the potential to impact on the community either directly, or indirectly through out of hours activities that may generate additional traffic or noise.	The CCS includes measures at Section 5.4.2 to provide updates in emergency events, with the CEMP and Emergency Management Plan identifying specific mechanisms to manage and mitigate these impacts.

## 4 Communications and Community Liaison Representative

Goodman have appointed a Communications and Community Liaison Representative (CCLR) who will provide the community and stakeholders with a single point of contact for the construction phases of the project, responsible for receiving and disseminating information requests and complaints, along with addressing any interface issues. The CCLR will also facilitate property access should it be required.

The CCLR will be available for contact by local residents and the community at all reasonable times to answer any questions and address any concerns relating to the project. The CCLR will have up-to-date information on:

- Emerging stakeholders.
- Planned construction activities.
- Planned traffic arrangements, including any temporary traffic switches.
- Current landowner discussions with members of staff.
- Planned community and stakeholder consultation.
- Complaints or enquiries received.
- Duties and accountabilities of staff.
- Commitments to stakeholders made by Goodman.

The CCLR will be supported by a community consultation team with the following responsibilities:

- Development and delivery of communications strategies, including meeting/workshop facilitation.
- Maintenance of the community and stakeholder consultation register.
- Property owner liaison to address property specific issues.
- Preparation of material and facilitating group and public meetings, workshops and forums for the works.
- Liaison with the construction team to identify items of potential community interest within the upcoming construction program.
- Identifying opportunities for improvement, monitoring community feedback and reporting back to the community via updates to the project web page and at regular community meetings.

The CCLR details are:

- Kiera Plumridge – Senior Consultant  
[kplumridge@slrconsulting.com](mailto:kplumridge@slrconsulting.com); 1300 002 887
- Kate McKinnon – Associate – SLR  
[kmckinnon@slrconsulting.com](mailto:kmckinnon@slrconsulting.com); 1300 002 887

## 5 Community and Stakeholder Engagement

### 5.1 Objectives

The key objectives of the strategy are to meet the requirements of condition C19 of SSD7348 and:

- Keep the local community and key stakeholders informed of the commencement and progress of works relating to the OWE project.
- Ensure that enquires and complaints received from the community or key stakeholders for the duration of the project are addressed and responded to in a timely and effective manner.
- Inform nearby sensitive receivers in advance of potential disturbances and events likely to cause impact.
- Be good neighbours and members of the local community throughout the duration of the project's lifespan.
- Providing an open two communications channel to allow ongoing, iterative engagement.
- Seek opportunities for improvement throughout the project.

### 5.2 Approach

Goodman are committed to delivering Community and Stakeholder Engagement outcomes utilising the following principles at the core of their approach:

- **Clarity** – Communication and engagement will be delivered in a clear and easy to understand manner to ensure the project and all associated works are fully understood by the community and stakeholders.
- **Proactivity** – Consultation and notice shall be given prior to the commencement of works or the undertaking of potentially impactful activities.
- **Transparency** – Communication and engagement will be undertaken in an open and transparent fashion, with information shared between the community and the project team.
- **Accessibility** – Information relating to the project will be accessible via a broad range of mediums and will be made readily available to the community and stakeholders. Several avenues of contact shall be provided for the purposes of enquiry or complaint.

In their communications and consultation with the community and key stakeholders, Goodman and their representatives will comply at all times with the requirements of the *Privacy and Personal Information Protection Act 1998 (NSW)* and the *Privacy Act 1988 (Cth)*.

### 5.3 Communication, Management and Mitigation Tools

A range of tools and techniques will be used to inform and engage with the community and stakeholders regarding the project. **Table 6** below provides an overview of the mechanisms to be utilised to regularly inform and consult with the local community and key stakeholders and measures to mitigate potential issues throughout the development.

**Table 6 Communication Management and Mitigation Tools**

Tool/ Technique	Description	Person Responsible	Audience	Frequency/Timing/Phase	Specifications
Community Consultation Meetings	Informal meetings, providing a project update and opportunity for the community and stakeholders to discuss recent experiences and upcoming construction activities.	CCLR and Community Consultation Team	The wider community and key stakeholders.	Construction phase. Meetings would initially be held quarterly, with the frequency then subject to the level of interest and the construction program.	Project updated including a review of any complaints received and remedial actions, followed by informal discussion with stakeholders and the community.
Community Workshops/Forums	An initial community workshop/forum to be held to identify the overarching construction program and communications protocols, with the event advertised via local newspaper and letter box drop.	CCLR and Community Consultation Team	The wider community and key stakeholders.	Prior to commencement of construction.	The first portion of the workshop is formal, identifying the project program, key personnel and the communications protocol. The second portion is informal with time for stakeholders and the community to ask questions and discuss any concerns.
Consultation Register	Recording community and stakeholder interactions, along with associated remedial actions as required.	CCLR and Community Consultation Team	The wider community and key stakeholders.	Project duration.	The consultation register satisfies the requirements of Condition C19 of SSD7348, and Specification 3.7.3 of the RMS G36 Specifications requiring a Complaints Register. The register will be continually updated to record community engagement, including information provided by Goodman, feedback received, and remedial action undertaken where required.

Tool/ Technique	Description	Person Responsible	Audience	Frequency/Timing/Phase	Specifications
Environmental Review Group Meeting	Meeting of key environmental stakeholders	Environmental Representative	All environmental stakeholders	As required for the construction phase	The Environmental Review Group will be briefed on upcoming project tasks with key environmental implications, along with complaints and enquiries received
Individual Community Meetings	Meetings with stakeholders as required to discuss a specific item.	CCLR and Community Consultation Team	The wider community and key stakeholders.	As required for the project duration.	Details and format subject to the meetings context, with a record of the discussion included in the consultation register and actioned as required.
Newspaper Advertisement	Newspaper Advertisement(s) to be published in The Western Weekender and Mt Druitt – St Marys Standard identifying the project hotline number and web page address.	CCLR and Community Consultation Team	The wider community and key stakeholders.	Prior to the commencement of the initial construction activities on the site and throughout the project prior to known key intrusive events.	An advertisement will be published advising of the commencement date of construction, a brief overview of the project and key contact details for enquires and complaints including the hotline, webpage and email address.  Further advertisements will be published where intrusive events are scheduled advising of the nature and date(s) and time(s) of the event and key contact details for enquiries and complaints.
Notification Letterbox Drop	Letters would be provided to specific receivers identified as being potentially affected by construction. This could be undertaken in tandem with door knocking.	CCLR and Community Consultation Team	Residents of the immediate area.	As required for the project duration.	Letter box drop details to be recorded in the consultation register.  Timing of construction activity to be identified along with relevant contact details.
On Site Signage	Project information details.	CCLR and Community Consultation Team	Visitors to the site and residents of the immediate area.	Project duration.	Contain key project contact details including the hotline and web page, along with relevant project and safety information.

Tool/ Technique	Description	Person Responsible	Audience	Frequency/Timing/Phase	Specifications
Online Feedback Forms	Simple form allowing rapid ad hoc feedback.	CCLR and Community Consultation Team	The wider community and key stakeholders.	Project duration.	Form available on the Oakdale project web page, with feedback provided to be incorporated into the consultation register and actioned as required.
Project Information and Complaints Number	Project hotline available for 24 hours recording of project feedback during construction Goodman and Tenant's Representative numbers available during operations	CCLR and Community Consultation Team or Goodman Representative / Tenant Representative	The wider community and key stakeholders.	Project duration.	Hotline number located on site signage, the web page and all project information material. Feedback provided to be incorporated into the consultation register and actioned as required.
Staff and Visitor Induction and Training	Project information details.	Site Forman and Management Staff	Staff and visitors to the site.	Project duration.	Key project safety information, contact details, emergency procedures and site information.
Toolbox and Prestart Meetings for WNSLR and Stage 1 Infrastructure Works	Project information details.	Site Forman and Management Staff	Staff and visitors to the site.	Project duration.	Task specific safety information, emergency procedures and relevant project updates. All staff and subcontractors to be made aware of external and internal communications procedures
Text Message and Email Alerts	Text messages providing prompt updates	CCLR and Community Consultation Team	Residents of the immediate area.	As required for the project duration.	Text Messages and email alerts will provide important information at short notice to potentially affected receivers. Text message and email details to be recorded in the consultation register.

Tool/ Technique	Description	Person Responsible	Audience	Frequency/Timing/Phase	Specifications
Website	A web page is established at: <a href="http://oakdaleopportunities.com">oakdaleopportunities.com</a>	CCLR and Community Consultation Team	The wider community and key stakeholders.	Project duration.	Website address and phone number located on site signage and all project information material.  Web page to provide contact details including hotline, email address and enquiry form, as well as project updates, along with environmental performance monitoring. Refer to Section 5.3.1 below for further details.

### 5.3.1 Project Website

Goodman has established a website for the project ([oakdaleopportunities.com](http://oakdaleopportunities.com)). The website was established prior to the commencement of works and will be maintained during the delivery of the project until the completion of all works.

The following information will be updated monthly or more frequently when necessary and made available on the website as required by SSD 7348 Condition D143:

- A copy of the documents listed in Condition D2 of the SSD Consent (SSD 7348).
- All current statutory approvals for the Development.
- All approved strategies, plans and programs required under conditions of the SSD Consent (SSD 7348).
- The proposed staging plans for the Development if the construction, operation or decommissioning of the Development is to be staged.
- A comprehensive summary of the monitoring results of the Development, reported in accordance with the specifications in any conditions of the SSD Consent (SSD 7348), or any approved plans and programs.
- A summary of the current stage and progress of the Development.
- Contact details (including email address, phone number and postal address) to enquire about the Development or to make a complaint.
- A complaints register, updated monthly and details of the complaints handling protocol for the project.
- The Compliance Report of the Development.
- Audit reports prepared as part of any monitoring or environmental audit of the Development and the Applicant's response to the recommendations in any audit report.
- Any other matter required by the Planning Secretary.

### 5.3.2 WNSLR Works Liaison and Notification Requirements

Where works relate to the construction of the WNSLR, the RMS QA Specification G36 – Environmental Protection sets out a number of specifications and measures addressing notification to the community and affected stakeholders. In order to comply with these requirements, Goodman shall undertake the following activities:

- Goodman shall notify local residents and other stakeholders about any new or changed construction activities including changes to bus stop locations and / or timetables, which will affect access to their properties/ premises at least five 5 working days before commencing work affecting residents.
- Such notification will state the nature of the work, why it is necessary, the expected duration, details of any changes to the traffic arrangements or property access and the name and 24-hour contact telephone number of the CCLR who can respond to any resident/stakeholder concerns.
- Any complaints shall be addressed in accordance with the complaint's procedure outlined in Section 5.4 of this strategy.
- Where extended working hours are proposed, the contractor shall inform Goodman who will subsequently inform residents of the proposed work outside normal working hours in accordance with the requirements outlined in this strategy. Written approval from the Planning Secretary will be sought for out of hours work.

- Within one working day of receiving a complaint about any environmental or other issue which has the capacity to damage Goodman’s reputation, including any pollution incidents, arising from the Work Under the Contract, a written report to Goodman shall be submitted detailing the complaint and the action taken to remedy the problem. A final report together with proposed measures to prevent the recurrence of such incidents shall be submitted to the Goodman within 5 working days.

The contractor shall adhere to set timeframes for notification of Goodman and distribution of notice to the community and stakeholders for activities related to the WNSLR. This commitment is outlined in **Table 7** and **Table 8** below:

**Table 7 Notification Requirements for Goodman prior to Construction Activities**

Activity	Notification required
Work at night (any time between 6pm and 7am)	2 weeks where possible, a minimum of 1 week
Work on weekends (including public holidays)	2 weeks where possible, a minimum of 1 week
Major changes to configuration of road traffic	At least 4 weeks
Impacts on pedestrians and/or bicyclists	At least 4 weeks
Commencement, rescheduling or completion of key construction activities	At least 4 weeks for commencement and completion, 24 hours’ notice for rescheduling
Commencement or rescheduling of property adjustment work	At least 2 weeks (four weeks for businesses)
Alteration to property access arrangements	At least 4 weeks
Other activities not identified above which may impact on the community stakeholders	At least 24 hours
Any form of community protest on site	Immediately

**Table 8 Notification Requirements for construction works**

Notification Type	Submission to Goodman	Distribution to Community and Stakeholders
Out of Hours Works / Night Works	Draft a notification letter at least 24 hours prior to the works being carried out	2 weeks where possible, a minimum of 1 week prior to the works being carried out
Traffic Conditions	Draft letter at least 4 weeks prior to the traffic conditions changing	At least 5 business days prior to the traffic conditions changing if deemed necessary by Goodman
Individual private properties regarding property adjustments or changes to access	Draft letter at least 4 weeks prior to the works being carried out	At least 2 weeks prior to the works being carried out of access changes
Access for bridgeworks over the Water NSW pipelines	Final draft of notification at least 4 weeks prior to be works being carried out	At least 4 weeks prior to the works being carried out
Individual businesses regarding property adjustments or changes to access	Draft letter at least 4 weeks prior to the works being carried out	At least 4 weeks prior to the works being carried out of access changes

### 5.3.3 Communication with Sensitive Receivers’ Procedure

During the course of construction works the CCLR will consult with nearby sensitive receivers listed below when necessary to advise of and/or schedule events and activities with the potential to cause impact such as high noise generating works, vibration intensive activities or traffic management disruptions.

The CCLR shall also consult with sensitive receivers to arrange respite period offerings where high-noise works are predicted to exceed 75dBA for residential receivers and 65dBA for schools and the retirement village. Respite offers will also be considered for high vibration works where the works are undertaken within the human comfort minimum working distances for all sensitive receivers.

Sensitive receivers are considered to include adjacent and directly affected properties, businesses and schools including:

- Residential properties located along Aldington Road (As shown in **Appendix A**).
- Emmaus Catholic Primary School and High School and Retirement Village on Bakers Lane.

Where development works have the potential to impact on sensitive receivers or respite offerings are proposed the CCLR will implement the sensitive receiver procedure outlined in **Table 9** below:

**Table 9 Sensitive Receiver Procedure**

Potential Impact or Issue	Method of Contact/Consultation	Timeframe
High noise generating work	Email, Text Message or Letterbox drop – notifying of expected commencement, duration and affected hours	No less than 24 hours prior to the activity
Vibration intensive activity	Email, Text Message or Letterbox drop – notifying of expected commencement, duration and affected hours	No less than 24 hours prior to the activity
Traffic management disruption	Email, Text Message or Letterbox drop – notifying of expected commencement, duration and affected hours Variable Message Signs	No less than 24 hours prior to the activity
Respite offerings	Email or phone calls will be undertaken to determine whether respite is required and appropriate scheduling and duration for respite periods	No less than 24 hours prior to the activity

### 5.4 Complaints Procedure

Goodman are committed to the timely and effective management of enquiries and complaints relating to construction and operational activities for the OWE. To this end, the following complaints procedure shown in **Figure 4** will be adhered to, enabling the receipt and recording of enquiries and complaints, along with the methods of response and resolution of issues raised.

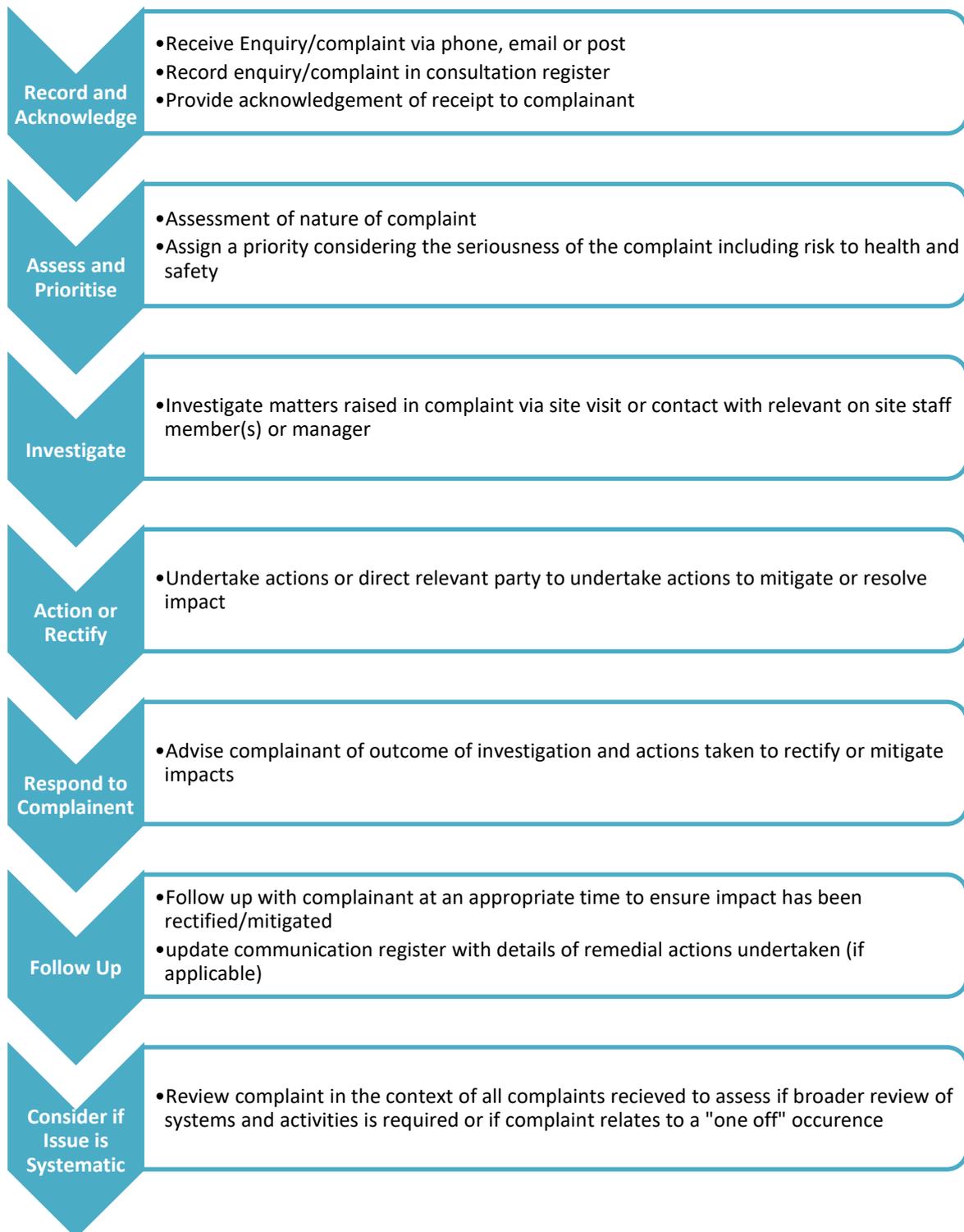


Figure 4 Complaints Handling Procedure

### 5.4.1 Protocol for Receiving and Recording Enquiries and Complaints

Goodman have established a project email and postal address for the receipt of enquiries and complaints relating to the development. The email and postal accounts will be regularly monitored to receive and respond to customer feedback and enquiries. The community information line (1300002887) has been established. The CCLR and community consultation team will manage the information line from the commencement of the project until the completion of construction. Where calls are received during hours of construction work (including out of hours works) all calls will be answered by the CCLR. Where calls are received outside of hours of construction works the caller will be invited to leave a message. Phone enquiries and complaints received in relation to the operational phase will be received by Goodman’s or the Tenant’s Representative. All approaches from the community and stakeholders will be registered in the project’s consultation register. The facilities established for receiving enquiries and complaints about the project during construction are shown in **Table 10**.

**Table 10 Enquires and Complaints Facilities**

Facility	Purpose	Detail
Community Information Line (Construction phase)	A contact phone number and associated contact name for questions/enquiries and the lodgement of complaints relating to the construction of the development.	1300 002 887
Goodman’s or Tenant’s Representative (Operational phase)	Contact phone numbers and associated contact name for questions/enquiries and the lodgement of complaints relating to the operation of the development.	As per Table 2-2 of the OWE OEMP as well as individual OEMPs for each warehouse
Email Address	An email address accessible via email and online enquiry form for questions/enquiries and the lodgement of complaints relating to the development.	<a href="mailto:community.oakdalewest@goodman.com">community.oakdalewest@goodman.com</a>
Postal Address	A postal address for the receipt of questions/enquiries and the lodgement of complaints relating to the development.	Level 17, 60 Castlereagh Street, Sydney, NSW 2000
In person verbal	Verbal enquiries and complaints can be made formally during community meetings or may be made informally where staff interact with members of the public in informal settings.	Verbal in person comments and submissions

Goodman have established a consultation register to record all complaints and enquiries received by the above means. The consultation register will be maintained on a regular basis and used to inform discussion at monthly community consultation and project team meetings. The consultation register shall include the following details for all complaints or enquiries received:

- Date and time of complaint or enquiry.
- Method by which the complaint or enquiry was made.
- Name, address, contact telephone number of complainant (if no such details were provided, a note to that effect).
- Nature of complaint or enquiry.
- Action taken in response including follow up contact with the complainant.

- Any monitoring to confirm that the complaint or enquiry has been satisfactorily resolved.
- If no action was taken, the reasons why no action was taken by you.

An excerpt of the consultation register is included at **Appendix B**.

#### 5.4.2 Protocol for Responding to and Resolving Enquiries and Complaints

Where a complaint or enquiry is received the responsible party (CCLR (construction phase) and Goodman or Tenant's Representative (operational phase)) will attempt to provide an immediate response if possible, via phone or email. Where a complaint or enquiry cannot be responded to immediately the responsible party will assess and prioritise the submission and provide the complainant or enquirer with a follow up verbal response on what action is proposed within two hours during construction works (including night and weekend works) and 24 hours at other times. Where a complaint or enquiry cannot be resolved by the initial or follow-up verbal response, a written response will be provided to the complainant or enquirer within ten days.

In the event of a complaint, the responsible party will assess whether the complaint is founded or unfounded and if necessary, delegate the remediation of the issue to the project manager for action or to the relevant project engineer or tenant's representative. The responsible party will oversee the rectification of the issue and respond to the complainant once the issue has been resolved.

In the event of an enquiry, the responsible party will endeavour to provide an immediate response where they are in possession of the relevant information. Where more specific or detailed information is required, the responsible party will liaise with the project manager or relevant project engineer/tenant's representative to obtain the information required to respond to the enquiry and provide this information to the enquiring party once in hand.

Where the above protocol is unsuccessful in resolving complaints, mediation may be undertaken at the discretion of Goodman to facilitate negotiation between affected parties. This shall be performed by an independent person (mediator) appointed by Goodman.

#### 5.4.3 Unreasonable Complainant Conduct

The NSW Ombudsman provides guidelines which define unreasonable complaint conduct as:

*"...any behaviour by a current or former complainant which, because of its nature or frequency, raises substantial health, safety, resource or equity issues for the parties to a complaint."*

Whilst it is not envisioned that the project will attract complainants that exhibit this behaviour, where a complainant is seen to potentially have a negative impact on the CCLR or support team's health, safety, resourcing or equity of service, Goodman shall adhere to the procedures and practices outlined within the NSW Ombudsman's "*Managing Unreasonable Complainant Conduct Practice Manual 2<sup>nd</sup> Edition*".

#### 5.4.4 Contingency Management Plan

In accordance with Condition D118(d) of the SSD 7348 consent, a contingency management plan has been developed to outline the management of unpredicted impacts and their consequences. Details of these events, their severity and response are detailed in **Table 11** below:

**Table 11 Contingency Management Plan**

Key Element	Trigger/ Response	Condition Green	Condition Amber	Condition Red
Submission	Trigger	General feedback/comment (no complaint or query).	Enquiry made by formal or informal channels.	Complaint made by formal or informal channels.
	Response	Acknowledge receipt and record in consultation register. No further response required.	Acknowledge receipt and record in consultation register. Direct enquiry to relevant person for actioning and response within 5 days.	Acknowledge receipt and record in consultation register. Respond to complaint immediately if possible, if not direct enquiry to relevant person for actioning and provide complainant with a follow up verbal response on what action is proposed within two hours during construction works (including night and weekend works) and 24 hours at other times.
Media	Trigger	Positive story in print, online, radio or television.	Neutral or advisory story in print, online, radio or television.	Negative story in print, online, radio or television.
	Response	Record in consultation register and advise Goodman media/marketing team. No further response required.	Record in consultation register and advise Goodman media/marketing team. No further response required.	Record in consultation register and advise Goodman Project Team for further action and response. Contact relevant person for actioning and response within 48 hours

Key Element	Trigger/ Response	Condition Green	Condition Amber	Condition Red
Unscheduled Event	Trigger	Event occurring outside of plan or schedule without impact or potential impact.	Event occurring outside of plan or schedule with minor impact or potential impact.	Event occurring outside of plan or schedule with major impact or potential impact.
	Response	No response required. Identify opportunities for improvement to manage potential future events.	Contact relevant person for actioning and response within 48 hours. Acknowledge in consultation register. Identify opportunities for improvement to manage potential future events.	Contact relevant person for actioning and response immediately. Acknowledge in consultation register. Identify opportunities for improvement to manage potential future events.
Political Interest	Trigger	General or non-specific enquiry by Local, State or Federal political representative.	Enquiry or complaint relating to minor issue by Local, State or Federal political representative.	Enquiry or complaint relating to major issue by Local, State or Federal political representative.
	Response	Goodman Project Team to prepare and provide response or assign response task to relevant staff member for comment. Record in consultation register.	Goodman Project Team to prepare and provide response within 48 hours. Record in consultation register.	Goodman Project Team to prepare and provide response within 24 hours. Record in consultation register.

## 6 Monitoring, Reporting and Evaluation

Monitoring, Reporting and Evaluation will be undertaken to measure the effectiveness of community consultation, stakeholder engagement and responses to complaints and enquiries. Opportunities for improvement will be sought on a continuous basis, with an annual review of the CCS undertaken to formalise these incremental improvements.

### 6.1 Monitoring

The performance of this strategy will be monitored monthly based upon an assessment of the following data:

- Total number of monthly complaints.
- Review of number of monthly complaints relating to lack of consultation/misinformation/confusion.
- Review of number of monthly enquiries relating to information previously disseminated to the community through other channels.
- Monthly review of enquiries or complaints of a similar nature or theme indicative of underlying systematic issues with the project or communication strategy.
- Response timeframes, including initial acknowledgement and the response to enquiries or remediation of issue(s).

The parameters of monitoring and performance criteria are outlined in **Table 12** below.

**Table 12 Summary of Monitoring Data**

Monitoring Parameter	Rationale	Performance Criteria	Monitoring Frequency
Total number of complaints	The number of complaints received in total is indicative of the community's satisfaction with the project.	A reduction in number of complaints, baseline determined by number of complaints received in preceding months.	Monthly
Number of complaints relating to lack of consultation/misinformation/confusion	Number of complaints relating to lack of consultation/ misinformation/ confusion is indicative of the effectiveness and clarity of communication tools utilized.	A reduction in number of complaints, baseline determined by number of complaints received in preceding month.	Monthly
Number of enquiries relating to information previously disseminated	Number of enquiries relating to information previously disseminated is indicative to the effectiveness of the delivery of information.	A reduction in number of enquiries, baseline determined by number of enquiries received in preceding month.	Monthly
Number of complaints/enquiries within defined categories based on theme or subject	A large number of complaints or enquiries relating to a single issue may be indicative of a systematic issue to be addressed as a priority.	A reduction in number of complaints, baseline determined by number of complaints received in preceding month.	Monthly

Monitoring Parameter	Rationale	Performance Criteria	Monitoring Frequency
Response timeframes	Response to enquiries and complaints should be timely to ensure effective responsiveness and rectification of issues and to encourage trust within the community.	Enquiries and complaints acknowledged within 48 hours. Urgent enquiries and complaints responded to within 48 hours of receipt, non-urgent enquiries and complaints responded to within 5 days.	Monthly

## 6.2 Reporting

Reporting shall be undertaken annually, with a monthly summary of results provided to the approved Environmental Representative (ER) in accordance with Conditions D127(e) and D128 of SSD77348 and the broader project team during monthly project team meetings. The monthly community consultation summary will be made publicly available on the project web page and shall include:

- A summary of community consultation activities undertaken within the preceding month.
- A summary of community consultation activities proposed within the following month.
- A summary of all enquiries and complaints received within the preceding month, including details of response and/or remediation activities.

Within three months of the submission of documentation identified by Condition D133 this CCS would be reviewed for compatibility.

## 6.3 Evaluation

Where performance criteria are not being satisfied, review of this strategy and its implementation will be undertaken by the Community Consultation Team and changes to the strategy may be made to rectify the short fall. Where systematic issues are identified associated with construction activities, the project manager will be advised and immediate rectification of the issue will be requested.

## 7 References

- NSW Ombudsman (2012) *Managing Unreasonable Complainant Conduct Practice Manual 2<sup>nd</sup> Edition*
- SLR Consulting Australia (2019) *Construction Environmental Management Plan*
- Urbis (2017) *Environmental Impact Statement – Oakdale West Estate (State Significant Development Application Ref 7348)*
- Urbis (2018) *Response to Submissions (A)*
- Urbis (2018) *Response to Submissions (B)*

# APPENDIX A

## Sensitive Receiver Map



# APPENDIX B

## Key Stakeholder Contact Details

Contact Name/Organisation	Contact Details
The Residents – 20 Aldington Road	
Emmaus Catholic College	Harvey Anchique - Business Manager P: (02) 9670 8300 F: (02) 9834 3403 M: 0428 063 119 E: hanchique@parra.catholic.edu.au
Trinity Catholic Primary School	Catherine Hey - Principal, chey@parra.catholic.edu.au, 02 8856 6200
Mamre Anglican School	Cathie Graydon – Principal (02)98341881, cathie.graydon@mamre.nsw.edu.au Marijana Motrivic, Business Manager 02, 8073 6908 marijana.mitrovic@mamre.nsw.edu.au,
Catholic Healthcare Emmaus Village	James Byrne Building Services Manager, M. 0434604370, jbyrne@chcs.com.au Kate Todd, Emmaus Village, ktodd@chcs.com.au, Home, 02 8804 0200
Little Smarties Learning Centre	61 2 9834 2155 kempscreek@littlesmarties.com.au
Penrith City Council	61 2 4732 7777 council@penrith.city
NSW EPA	131 555 info@epa.nsw.gov.au
NSW Biodiversity and Conservation Division, Department of Planning Industry and Environment	61 2 9995 5000 info@environment.nsw.gov.au
NSW Department of Industry	61 2 9338 6600
Roads and Maritime Service	13 22 13
Transport for NSW	61 2 8202 2200
NSW Rural Fire Service	61 2 8741 5555 webmaster@rfs.nsw.gov.au
WaterNSW	1300 662 077 Customer.Helpdesk@waternsw.com.au
National Resources Asset Regulator	61 2 9338 6600
TransGrid	61 2 9284 3000
Endeavour Energy	131 081
Sydney water	13 20 92
Jemena	1300 536 362
NBN	1300 687 626
Telstra	13 22 00
Registered Aboriginal Parties	See Appendix C

# APPENDIX C

## Registered Aboriginal Parties

Name	Organisation	Address	Suburb	State	Postcode	Email	Phone	Notes
Caroline Hickey	A1 Indigenous Services					<a href="mailto:cazadirect@live.com">cazadirect@live.com</a>	Mobile: 0411 650 057	
Andrew Williams	Aboriginal Archaeology Service Inc.	PO Box 6283	Rouse Hill	NSW	2155	<a href="mailto:AAS.info@bigpond.com">AAS.info@bigpond.com</a>	Mobile: 0490 126 040	
Amanda Hickey	Amanda Hickey Cultural Services	41 Dempsey St	Emu Heights	NSW	2750	<a href="mailto:amandahickey@live.com.au">amandahickey@live.com.au</a>	Mobile: 0434 480 588	
Karia Lea Bond	Badu	11 Jeffery Pl	Morya	NSW	2537	<a href="mailto:baduacts@gmail.com">baduacts@gmail.com</a>	Mobile: 0476 381 207	
Seli Storer	Biamanga					<a href="mailto:biamangachts@gmail.com">biamangachts@gmail.com</a>		
Richard Andy	Bidawal CHTS					<a href="mailto:bidawalchts@gmail.com">bidawalchts@gmail.com</a>		
Simalene Carriage	Bilinga					<a href="mailto:bilingachts@gmail.com">bilingachts@gmail.com</a>		OR Wandai Kirkbright???
								Website: <a href="http://www.butucarbin.org.au/">http://www.butucarbin.org.au/</a> , postal address: PO Box E18 Emerton NSW 2770
Jennifer Beale	Butucarbin Aboriginal Corporation	28 - 30 Pringle Road	Hebersham	NSW	2770	<a href="mailto:koori@ozemail.com.au">koori@ozemail.com.au</a>	Office: (02) 9832 7167, Mobile: 0409 924 409	
Marilyn Carroll-Johnson	Corroboree Aboriginal Corporation	PO Box 3340	Rouse Hill	NSW	2155	<a href="mailto:corroboreecorp@bigpond.com.au">corroboreecorp@bigpond.com.au</a>	Mobile: 0415 911 159	Contact details for Steve Johnson
Corey Smith	Cullendulla					<a href="mailto:cullendullachts@gmail.com">cullendullachts@gmail.com</a>		
Gordon Morton	Darug Aboriginal Cultural Heritage						Office: (02) 9410 3665, Mobile: 0422 865 831	
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Leanne Watson	Darug Custodian Aboriginal Corporation	PO Box 81	Windsor	NSW	2758	<a href="mailto:mulgokivi@bigpond.com">mulgokivi@bigpond.com</a>	Mobile: 0420 591 138	
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John Reilly	Darug Tribal Aboriginal Corporation	PO Box 441	Blacktown	NSW	2148	<a href="mailto:jmreilly228@gmail.com">jmreilly228@gmail.com</a>		
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Andrew Bond	Dharug CHTS					<a href="mailto:dharugchts@gmail.com">dharugchts@gmail.com</a>		
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Paul Boyd	Didge Ngunawal					<a href="mailto:didgengunawalclan@yahoo.com.au">didgengunawalclan@yahoo.com.au</a>	Mobile: 0426 823 944	
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	Murrin CHTS				<a href="mailto:murrinchts@gmail.com">murrinchts@gmail.com</a>		
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John Carriage	Tharawal CHTS				<a href="mailto:tharawalchts@gmail.com">tharawalchts@gmail.com</a>		Changed Violet to John as he was elected chairman in May 2018
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# APPENDIX D

## Complaints Register



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Auckland 1010  
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### MELBOURNE

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### NEWCASTLE

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Townsville South QLD 4810  
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### WOLLONGONG

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# Appendix H

## Salinity Management Plan



Our Ref: PSM1541-125L

18 November 2015

Goodman Property Services (Aust) Pty Ltd  
Level 17, 60 Castlereagh Street  
SYDNEY NSW 2000

ATTENTION: KYM DRACOPOULOS  
kym.dracopoulos@goodman.com

Dear Kym

**RE: OAKDALE WEST PRECINCT – SALINITY MANAGEMENT PLAN**

## **1 INTRODUCTION**

This letter presents a Salinity Management Plan (SMP) prepared by Pells Sullivan Meynink (PSM) for Oakdale West Precinct. This was prepared to accompany our salinity investigation in accordance with our proposal (ref. PSM1541-116L Rev1 dated 9 October 2015).

The aim of the SMP is to provide controls for the potential impacts of the proposed development on site salinity and has been prepared in accordance with WSROC Salinity Code of Practice (2004) salinity management guidelines.

## **2 DOCUMENTS RELIED UPON**

In preparing the SMP, we have taken into consideration:

1. The results of the salinity assessment completed by PSM and presented in our letter (Ref. PSM 1541-125L).
2. Details of the proposed developments as presented in the "*Oakdale West Optimised Masterplan Cut/Fill Plan*" by AT&L (ref. SKC051 15-272 issue P1 dated 2 June 2015).
3. WSROC Salinity Code of Practice (2004) salinity management guidelines.

### **3 OBJECTIVE OF SMP**

The objective of this SMP is to effectively manage site salinity, to minimise the effect of the proposed development on the salinity processes and to protect the proposed development from salinity damage.

### **4 SALINITY ASSESSMENT**

The PSM salinity assessment noted that:

1. The soils present on site are sodic to highly sodic.
2. The soils present on site are non-saline to slightly saline.

### **5 RECOMMENDATIONS**

#### **5.1 Development components**

This SMP addresses the components of the proposed development at both the construction stage and for the permanent works. Recommendations regarding the following development components are provided in the following sections:

1. Earthworks
2. Gardens and landscaped areas
3. Roads, footpaths and hardstand areas
4. Surface water, stormwater and drainage
5. Detention basins
6. Durability of concrete structures in contact with the ground
7. Masonry structures
8. Groundwater management.

## 5.2 Earthworks

We understand that the development will be sympathetic to the site topography and the environment and thus aim to minimise the cut and fill. The design and construction of the earthworks should consider the following recommendations:

1. Vegetation cover should be established and maintained on permanent batters as soon as practical upon completion to control erosion.
2. The final surface of all areas of the development should be graded to prevent the ponding of surface water.
3. Subsoil drainage should be considered for areas where the designer considers accumulation of groundwater may occur. We do not consider that any significant such areas are likely at this site.
4. Erosion control of temporary batters, stockpiles and disturbed areas should be planned prior to undertaking the earthworks and implemented during the earthworks. Consideration should be given to:
  - a. Grading and sealing partially completed surfaces.
  - b. Installation of clearly visible fencing and traffic control measures to prevent unnecessary trafficking of areas and ensuing site disturbance.
  - c. Establishing set vehicular access points and roads.
  - d. Protecting stockpiles (temporary vegetation or mulching) where these are to be left in place for long durations.
5. Sediment control shall be implemented by means of sediment traps and silt fencing where considered necessary.
6. Where for landscaping purposes or erosion control the designer requires gypsum or lime stabilisation, these should be planned to be undertaken as part of the initial earthworks.

## 5.3 Gardens and landscaped areas

The proposed development will result in the majority of the site comprising roads, footpaths, and hardstand areas. Garden and landscaped areas are likely to be of limited extent. The design and construction of the gardens and landscaped areas should consider the following recommendations:

1. Where possible areas of established vegetation, particularly large trees, should be retained.
2. Selection of plant species should consider the soil conditions, including moderate salinity, relatively poor fertility and clayey low permeability soil profiles. Promotion of successful revegetation is likely to require use of nutrient rich topsoil. Saline topsoils should not be imported to site.

3. Recharge of groundwater and potential for water logging should be minimised by:
  - a. Adopting plant species with minimal watering requirements.
  - b. Adopting 'waterwise' gardening principles.
  - c. Minimising use of potable water in landscaped areas.
  - d. Properly designed and implemented irrigation systems.
  - e. Establishment of perennial species and deep rooted trees.

#### **5.4 Roads, footpaths and hardstand areas**

As stated, the proposed development will result in the majority of the site comprising roads, footpaths, and hardstand areas. The design and construction of roads, footpaths and hardstand areas should consider the following recommendations:

1. Roads, footpath and hardstand surfaces should be graded and the grades maintained at all times to prevent ponding of surface water at locations where this can result in infiltration into the underlying soils (e.g. pavement joints).
2. Connections between the roads, footpath and hardstand surfaces and the surface water and stormwater drainage infrastructure should be designed, constructed and maintained to restrict infiltration into underlying soils.
3. Services that are to be located below the roads, footpath and hardstand surfaces should be installed, where practical, at the time of construction.

#### **5.5 Surface water, stormwater and drainage**

Surface water, stormwater and drainage design should aim at restricting infiltration into the ground resulting in groundwater recharge. The design and construction of surface water, stormwater and drainage measures should thus consider the following recommendations:

1. Disturbance of natural drainage patterns should be reduced. Where these are disturbed or altered appropriate artificial drainage should be installed.
2. Stormwater and surface water should be managed to restrict infiltration.
3. Temporary water retaining structures used during construction should be managed to restrict infiltration.
4. Stormwater and surface water infrastructure should be designed and constructed to minimise the likelihood of leakage.
5. Guttering and down pipes should be connected and maintained.
6. Surface water runoff should be directed around all exposed surfaces, temporary stockpiles and landscaped areas.

## **5.6 Detention basins**

Detention basins should be designed such that recharge into the groundwater system is controlled. On this basis, the design of temporary and permanent on site detention will need to consider the requirement to line the basin with an impermeable liner (clay layer or synthetic liner) or simply vegetate the exposed base.

In assessing the above requirement the design will need to consider the proposed basin location, the subsurface conditions at the basin, the proximity of the basin to other structures, the proposed storage volume and storage depth and the likely duration of water storage.

In saline environments reducing the water infiltration into the soil and groundwater recharge is considered desirable. On this site, the majority of the site is to be developed with roads and paved areas thus significantly reducing surface water infiltration. The amount of infiltration that can be tolerated at the detention basins will need to be assessed in terms of the overall water balance on site.

Where ponds intended to be permanently full are proposed, such as recreational or aesthetic ponds or fountains, it is recommended that the base of the permanent pond be lined with an impermeable liner. The liner to be adopted (clay or synthetic) shall be a matter of design.

## **5.7 Durability of concrete structures in contact with the ground**

In designing structural concrete elements in contact with the ground the design should consider the results of the salinity, sulphate, chloride and pH testing on the soil and groundwater and the durability requirements in AS2159:2009 and AS3600:2009.

Both these standards provide guidance on minimum concrete grade/strength and minimum cover requirements.

Based on the results of the salinity assessments it is recommended that:

1. The design of structural concrete members in contact with the ground (excluding piles) adopt an A2 exposure classification as defined in AS3600:2009.
2. The design of concrete cast in situ piles adopt a mild classification as defined in AS2159:2009.

## **5.8 Masonry structures**

Having given consideration to the very low to moderate soil salinity on site, the relatively deep water table, and the low permeability soils present on site it is considered that the design and construction of masonry structures including damp proof courses, moisture barriers and selection of brick and construction materials should be undertaken in accordance with the relevant building industry standard. We do not expect special attention to salinity will be required.

## 5.9 Groundwater management

The intention of groundwater maintenance at this site is to reduce the likelihood of recharge of the groundwater resulting in rising of the groundwater table to near the ground surface.

The very low to moderate soil salinity on site, the relatively deep water table, and the low permeability soils combine to reduce the likelihood of a rising groundwater table. Further, the development involves a very significant reduction in infiltration over the site.

Furthermore, the recommendations in Section 5.3 to 5.6 regarding gardens and landscaped areas, roads, footpaths and hardstand areas, surface water, stormwater and drainage and detention basins are aimed at reducing the potential for groundwater recharge.

In addition to these recommendations, use of infiltration pits to disperse surface water should be avoided.

## 5.10 Importation of soil

It may be required to import topsoil or other soil onto site. Materials to be imported to site should be assessed for suitability for the intended use. Saline or contaminated soils should not be imported to site.

## 6 SIGN OFF

We recommend the following:

The designer and contractor responsible for construction of the various development components be required to sign-off their design and the as built, certifying that:

*“The works have been designed/constructed having given appropriate consideration to the recommendations in the SMP (Ref. PSM1541-125L dated xxx)”.*

The designer and contractors should contact PSM during the works if they have any queries with regards to the requirements in the SMP or if conditions significantly differ from those described in this SMP.

Please do not hesitate to contact the undersigned if you have any queries.

For and on behalf of  
PELLS SULLIVAN MEYNINK



CHRISTOPHER FERNANDEZ  
Geotechnical Engineer



GARRY MOSTYN  
Chief Engineer

# Appendix I

## Waste Management Plan

# OAKDALE WEST BUILDING 3B

## Waste Management Plan

### Prepared for:

Goodman Property Services (Aust) Pty Ltd  
1-11 Hayes Rd  
Rosebery NSW 2018

SLR Ref: 610.30398.00000-R01  
Version No: -v3.0  
June 2021



## PREPARED BY

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## BASIS OF REPORT

This report has been prepared by SLR Consulting Australia Pty Ltd (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Goodman Property Services (Aust) Pty Ltd (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.

## DOCUMENT CONTROL

Reference	Date	Prepared	Checked	Authorised
610.30398.00000-R01-v3.0	15 June 2021	Emerson Helmi Patch	Celine El-Khoury	Celine El-Khoury
610.30398.00000-R01-v2.0	1 June 2021	Emerson Helmi Patch	Celine El-Khoury	Celine El-Khoury
610.30398.00000-R01-v1.0	18 May 2021	Emerson Helmi Patch	Celine El-Khoury	Celine El-Khoury

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Appendix B Council Waste Management Plan Form

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# 1 Introduction

## 1.1 Overview

SLR Consulting Australia Pty Ltd (SLR) has been commissioned by Goodman Property Services (Aust) Pty Ltd (the Client) to prepare a Waste Management Plan (WMP) in support of Development Application (DA) for Building 3B of the Oakdale West estate. The WMP is for the site preparation, construction and operational activities of Building 3B of the Oakdale West industrial Estate (the Project).

This WMP applies to the waste generated from the site preparation, construction and operational stages of the Project and has been prepared using architectural drawings supplied by the Client and attached in **Appendix A**.

As per Condition C17 of SSD 7348, this report should be prepared in accordance with the NSW Waste Classification Guidelines (DECCW, 2009). These guidelines are now out of date. The most up to date guidelines are the NSW EPA's Waste Classification Guidelines 2014. This report was prepared in accordance with these guidelines. See **Table 2** and **Table 6** for more information on waste classification.

## 1.2 Objectives

The principal objective of this WMP is to identify all potential wastes likely to be generated at the Project site during the site preparation, construction and operational phases, including a description of how waste would be handled, processed and disposed of, or re-used or recycled, in accordance with Penrith City Council's (Council) requirements.

The specific objectives of this WMP are as follows:

- To encourage the minimisation of waste production and maximisation of resource recovery.
- To ensure the appropriate management of contaminated and hazardous waste.
- To assist in ensuring that any environmental impacts during the operational life of the Project comply with Council's development consent conditions and other relevant regulatory authorities.

## 1.3 Review of WMP

This WMP is not a static document. It is a working document that requires review and updating to ensure ongoing suitability for the proposed on-going operations at the site.

This WMP will be reviewed and updated:

- To remain consistent with waste and landfill regulations and guidelines
- If changes are made to site waste and recycling management, or
- To take advantage of new technologies, innovations and methodologies for waste or recycling management.

Copies of the original WMP and its future versions should be retained by the building manager. Changes made to the WMP, as well as the reasons for the changes made, should be documented by the building manager as part of the review process.

---

## 2 Project Description

### 2.1 Overview of Proposed Development

The proposed development comprises the construction of Building 3B within Precinct 3 of the Oakdale West Estate and its fit out and use as a warehouse and distribution centre with two (2) tenancies. The proposal includes ancillary office space, car and truck parking, loading bays, landscaping, solar panels and signage for each tenancy. The proposed development will facilitate warehouse and distribution uses consistent with the IN1 General Industrial zone under the State Environmental Planning Policy (Western Sydney Employment Area) 2009.

The proposal does not require clearing or supporting infrastructure as all necessary vegetation removal, infrastructure installation and other investigations were approved and have been undertaken in accordance with SSD 7348.

### 2.2 Overview of Proposed Construction Work

Project works for are expected to include site preparation and construction activities.

A site plan for the Project is shown in **Figure 1** and **Appendix A**. The anticipated construction works for this development include the construction of the below:

- a warehouse and distribution centre with two (2) tenancies
- Two ancillary offices, one for each tenancy
- Truck and car parking areas, and associated site hardstand.

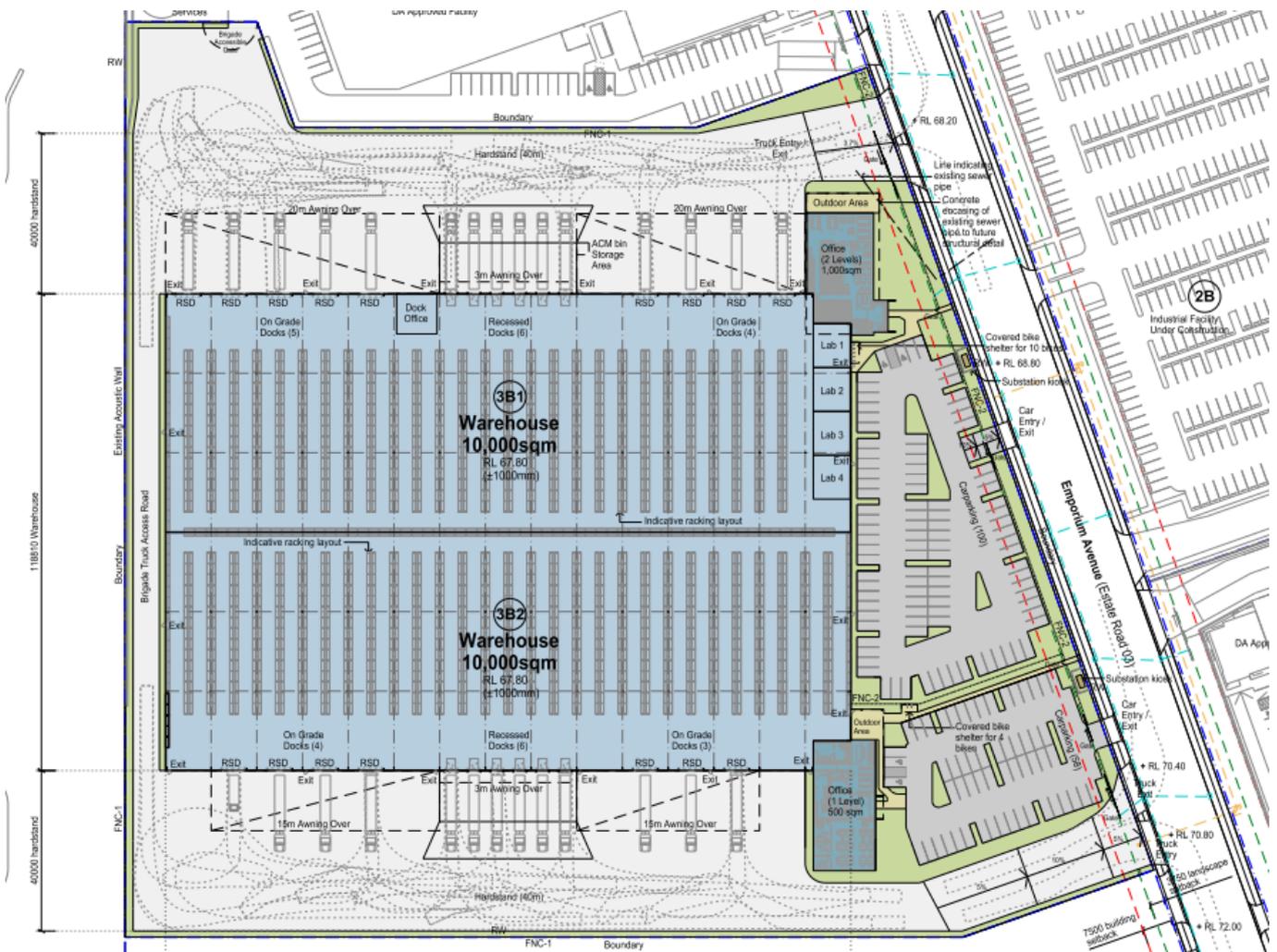


Figure 1 Site Plan

## 2.3 Overview of Proposed Operations

Based on communication with the Client, SLR understands the Project will function as a standard warehouse with distribution operations.

## 3 Better Practice Waste Management and Recycling

### 3.1 Waste Management Hierarchy

This WMP has been prepared in line with the waste management hierarchy shown in **Figure 2**, which summarises the objectives of the *Waste Avoidance and Resource Recovery Act 2001*.

The waste management hierarchy comprises the following principles, from most to least preferable:

- Waste **avoidance**, prevention or reduction of waste generation. Achievable through better design and purchasing choices.
- Waste **reuse**, reuse without substantially changing the form of the waste.
- Waste **recycling**, treatment of waste that is no longer usable in its current form to produce new products.
- Energy **recovery**, processing of residual waste materials to recover energy.
- Waste **treatment**, reduce potential environmental, health and safety risks.
- Waste **disposal**, in a manner that causes the least harm to the natural environment.

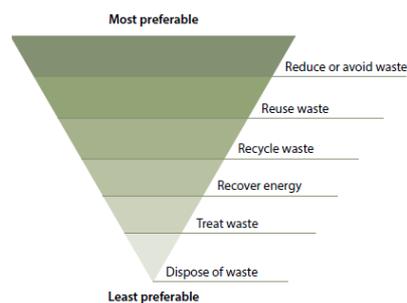


Image from NSW EPA (2014) NSW Waste Avoidance and Resource Recovery Strategy 2014-21.

**Figure 2** Waste management hierarchy

### 3.2 Benefits of Adopting Better Practice

Adopting better practice principles in waste minimisation offers significant benefits for organisations, stakeholders and the wider community. Benefits from better practice waste minimisation include:

- Improved reputation of an organisation due to social and environmental responsibility.
- Lowered consumption of non-renewable resources.
- Reduced environmental impact, for example, pollution, from materials manufacturing and waste treatment.
- Reduced expenses from lower waste disposal.
- Providing opportunities for additional revenue streams through beneficial reuse.

## 4 Waste Legislation and Guidance

The legislation and guidance outlined in **Table 1** below should be referred to during the site preparation, construction and operational phases of the Project.

**Table 1** Legislation and guidance

Legislation and Guidance	Objectives
Council legislation and guidelines	
Penrith Local Environmental Plan (LEP) 2010 <sup>1</sup>	The Penrith LEP came into force for the entire Penrith local government area on 25 February 2015 and provides the legal framework of the Penrith Development Control Plan, including land use and development permitted in a set zone. The LEP also contains provisions to conserve local heritage and protect sensitive land.
Penrith Development Control Plan (DCP) 2014 <sup>2</sup>	The Penrith DCP came into effect on 17 April 2015 and supports provision of the LEP planning controls by providing detailed planning and design guidelines. The DCP has been prepared in accordance with the <i>Waste Avoidance and Resource Recovery Act 2001</i> . One of the objectives of the DCP is to assist in reducing Penrith's ecological footprint by encouraging the diversion of waste from landfill. This WMP specifically addresses Part C5 – Waste Management of the DCP and the Waste Management Guidelines for Industrial, Commercial and Mixed Use.
Waste Strategy 2017-2026, Penrith City Council	Council's waste strategy sets out the waste management targets for the Penrith local government area including working towards reduced waste generation and increased landfill diversion. The strategy was prepared in consultation with the community and informed by waste audit results. The strategy defines the actions required to reach the targets, including actions for waste diversion from landfill, resource recovery, technology innovation, community education and resource recovery facilities.
State and National legislation and guidelines	
Building Code of Australia (BCA) and relevant Australian Standards	The BCA has the aim of achieving nationally consistent, minimum necessary standards of relevant health and safety, amenity and sustainability objectives efficiently.
Council of Australian Governments National Construction Code 2019	The National Construction Code 2019 sets the minimum requirements for the design, construction and performance of buildings throughout Australia.
NSW EPA's Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities 2012	These better practice guidelines present information on waste minimisation and resource recovery as well as information on commonly used waste management provisions. The guidelines also provide benchmarks for assessing waste production rates in Australia.
NSW EPA (2014) NSW Waste Avoidance and Resource Recovery Strategy 2014-21	The <i>NSW Waste Avoidance and Resource Recovery Strategy 2014-21</i> is aimed at ultimately "improving environment and community well-being by reducing the environmental impact of waste and using resources more efficiently" by presenting a framework intended to avoid and reduce waste generation, increase recycling, divert more waste from landfill, manage problem wastes better, reduce litter and reduce illegal dumping.

<sup>1</sup> <https://legislation.nsw.gov.au/#/view/EPI/2010/540>

<sup>2</sup> <https://www.penrithcity.nsw.gov.au/building-development/planning-zoning/planning-controls/development-control-plans>

Legislation and Guidance	Objectives
NSW EPA Resource Recovery Orders and Resource Recovery Exemptions	<p>The NSW EPA has issued a number of resource recovery orders and resource recovery exemptions under the POEO (Waste) Regulation 2014 for a range of wastes that may be recovered for beneficial re-use. These wastes typically include those from demolition and construction works, as well as operational wastes such as food waste.</p> <ul style="list-style-type: none"> <li>• Resource recovery orders present conditions which generators and processors of waste must meet to supply the waste material for beneficial re-use.</li> <li>• Resource recovery exemptions contain the conditions which consumers must meet to use waste for beneficial re-use.</li> </ul>
NSW EPA's Waste Classification Guidelines 2014	<p>The NSW EPA <i>Waste Classification Guidelines</i> assists waste generators to effectively manage, treat and dispose of waste to ensure the environmental and human health risks associated with waste are managed appropriately and in accordance with the <i>POEO Act 1997</i> and is associated regulations.</p>
<i>Protection of the Environment Operations Act (POEO) 1997 and Amendment Act 2011</i>	<p>The <i>POEO Act 1997</i> and <i>POEO Amendment Act 2011</i> are administered by the NSW Environment Protection Authority (NSW EPA) to enable the NSW Government to establish instruments for setting environmental standards, goals, protocols and guidelines. They outline the regulatory requirements for lawful disposal of wastes generated during the demolition, construction and operational phases of a development, as well as the system for licencing waste transport and disposal.</p>
The Work Health and Safety Regulation 2017	<p>The Work Health and Safety Regulation 2017 provide detailed actions and guidance associated with the topics discussed in <i>The Work Health and Safety Act 2011</i>. The primary aim of the regulation is to protect the health and safety of workers and ensure that risks are minimised in work environments. Workplaces are to ensure that they are compliant with the requirements specified in the regulations. The regulations discuss items such as actions that are prohibited or obligated in work environments, the requirements for obtaining licences and registrations, and the roles and responsibilities of staff in workplaces.</p>
<i>Waste Avoidance and Resource Recovery Act 2001</i>	<p>The <i>Waste Avoidance and Resource Recovery Act 2001</i> aims to promote waste avoidance and resource recovery and repeals the <i>Waste Minimisation and Management Act 1995</i>. Specific objectives of the <i>Waste Avoidance and Resource Recovery Act 2001</i> include:</p> <ul style="list-style-type: none"> <li>• encouraging efficient use of resources</li> <li>• minimising the consumption of natural resources and the final disposal of waste by encouraging the avoidance of waste and the reuse and recycling of waste</li> <li>• ensuring industry and the community share responsibility in reducing/dealing with waste, and</li> <li>• efficiently funding of waste/resource management planning, programs and service delivery.</li> </ul> <p>As of 2016, the addition to the Act of Part 5 defines the legislative framework for the "Return and Earn Container Deposit Scheme" whereby selected beverage containers can be returned to State Government authorities for a monetary refund.</p>

## 5 Site Preparation and Construction Waste and Recycling Management

### 5.1 Targets for Resource Recovery

The performance of each new development should contribute to the following target from the NSW EPA (2014) *NSW Waste Avoidance and Resource Recovery Strategy 2014-21*:

- 75 % of total construction and demolition waste recycled, increasing to 80 % by 2021.

Additionally, in the interests of Council's additional commitments to waste management controls, the construction and excavation procedures should endeavour to reach the following outlined target from the DCP:

- Reduce the volume of demolition, construction and fit out waste, including excavation, going to landfill by 76 %.

It is anticipated that the waste minimisation measures in the following sections will assist the Project to meet these targets. Waste reporting and audits can be used to determine the actual percentage of wastes that have been recycled during the construction and site preparation stage of the Project.

### 5.2 Waste Streams and Classifications

The site preparation and construction of the Project is likely to generate the following broad waste streams:

- Site clearance wastes
- Construction wastes
- Plant maintenance waste
- Packaging wastes, and
- Work compound waste from on-site employees.

A summary of likely waste types generated from site preparation and construction activities, along with their waste classifications and proposed management methods, is provided in **Table 2**.

For further information on how to classify a waste type refer to the NSW EPA (2014) *Waste Classification Guidelines*<sup>3</sup>. Further information on managing site preparation and construction wastes is available from the NSW EPA website<sup>4</sup>.

<sup>3</sup> Available online from <https://www.epa.nsw.gov.au/your-environment/waste/classifying-waste/waste-classification-guidelines>

<sup>4</sup> <http://www.epa.nsw.gov.au/your-environment/waste/industrial-waste/construction-demolition>

**Table 2 Potential waste types and their management methods**

Waste Types	NSW EPA Waste Classification	Proposed Management Method
<b>Site Clearance</b>		
Green waste including timber, pine and particle board	General solid waste (non-putrescible)	Separated, some chipped and stored on-site for landscaping, remainder to landscape supplies or off-site recycling. Stumps and large trees to landfill.
Clean fill	General solid waste (non-putrescible)	On-site re-use
Contaminated fill	To be classified subject to the results of testing	Off-site treatment or disposal to landfill
Excavated natural material (ENM) or virgin excavated natural material (VENM)	General solid waste (non-putrescible)	On-site re-use of topsoil for landscaping of the site, off-site beneficial re-use or send to landfill site.
<b>Construction</b>		
Sediment fencing, geotextile materials	General solid waste (non-putrescible)	Reuse at other sites where possible or disposal to landfill
Concrete	General solid waste (non-putrescible)	Off-site recycling for filling, levelling or road base
Bricks and pavers	General solid waste (non-putrescible)	Cleaned for reuse as footings, broken bricks for internal walls, crushed for landscaping or driveway use, off-site recycling
Gyprock or plasterboard	General solid waste (non-putrescible)	Off-site recycling or returned to supplier
Sand or soil	General solid waste (non-putrescible)	Off-site recycling
Metals such as fittings, appliances and bulk electrical cabling, including copper and aluminium	General solid waste (non-putrescible)	Off-site recycling at metal recycling compounds and remainder to landfill
Conduits and pipes	General solid waste (non-putrescible)	Off-site recycling
Timber	General solid waste (non-putrescible)	Off-site recycling, Chip for landscaping, Sell for firewood <i>Treated:</i> reused for formwork, bridging, blocking, propping or second-hand supplier <i>Untreated:</i> reused for floorboards, fencing, furniture, mulched second hand supplier Remainder to landscape supplies.
Doors, Windows, Fittings	General solid waste (non-putrescible)	Off-site recycling at second hand building supplier
Insulation material	General solid waste (non-putrescible)	Off-site disposal
Glass	General solid waste (non-putrescible)	Off-site recycling, glazing or aggregate for concrete production

Waste Types	NSW EPA Waste Classification	Proposed Management Method
Asbestos	Special waste	Off-site disposal at a licenced landfill facility.
Fluorescent light fittings and bulbs	Hazardous waste	Off-site recycling or disposal; contact <i>FluoroCycle</i> for more information <sup>5</sup>
Paint	Hazardous waste	Off-site recycling, Paintback collection <sup>6</sup> or disposal
Synthetic Rubber or carpet underlay	General solid waste (non-putrescible)	Off-site recycling; reprocessed and used in safety devices and speed humps
Ceramics including tiles	General solid waste (non-putrescible)	Off-site recycling at a crushing and recycling company
Carpet	General solid waste (non-putrescible)	Off-site recycling or disposal; reused for landscaping, insulation or equestrian uses
<b>Plant Maintenance</b>		
Empty oil and other drums or containers, such as fuel, chemicals, paints, spill clean ups	Hazardous waste: Containers were previously used to store Dangerous Goods (Class 1, 3, 4, 5 or 8) and residues have not been removed by washing or vacuuming. General solid waste (non-putrescible): Containers have been cleaned by washing or vacuuming.	Transport to comply with the transport of Dangerous Goods Code applies in preparation for off-site recycling or disposal at licensed facility Note: Discharge to sewer subject to Trade Waste Agreement with local Council
Air filters and rags	General solid waste (non-putrescible)	Off-site disposal
Drained Oil filters	General solid waste (non-putrescible)	Off-site recycling
Commercial Lead acid or Nickel cadmium Batteries	Hazardous waste	Off-site recycling, Contact the Australian Battery Recycling Initiative <sup>7</sup> for more information
<b>Packaging</b>		
Packaging materials, including wood, plastic, including stretch wrap or LLPE, cardboard and metals	General solid waste (non-putrescible)	Off-site recycling
Wooden or plastic crates and pallets	General solid waste (non-putrescible)	Reused for similar projects, returned to suppliers, or off-site recycling. Contact <i>Business Recycling</i> for more information <sup>8</sup>
<b>Work Compound and Associated Offices</b>		
Food Waste	General solid (putrescible) waste	Dispose to landfill with general garbage

<sup>5</sup> Available online from <http://www.fluorocycle.org.au/> or <http://www.environment.gov.au/settlements/waste/lamp-mercury.html>

<sup>6</sup> Available online from <https://www.paintback.com.au/>

<sup>7</sup> <http://www.batteryrecycling.org.au/home>

<sup>8</sup> Available online from <http://businessrecycling.com.au/search/>

Waste Types	NSW EPA Waste Classification	Proposed Management Method
Recyclable beverage containers including glass and plastic bottles, aluminium cans and steel cans	General solid waste (non-putrescible)	Co-mingled recycling at off-site licensed facility or deliver to local NSW container deposit scheme 'Return and Earn' facility <sup>9</sup>
Clean paper and cardboard	General solid waste (non-putrescible)	Paper and cardboard recycling at off-site licensed facility
General domestic waste generated by workers such as soiled paper and cardboard and polystyrene	General solid waste (non-putrescible) mixed with putrescible waste	Disposal at landfill

### 5.3 Site preparation

The Project will be constructed on primarily greenfield land. Care should be taken to minimise site disturbance and limit unnecessary excavation.

Council's DCP states that if excess material is transported offsite, they are to be informed of the quantity, quality, method of transport and where the material will be disposed. SLR recommends that excavated spoil is classified by a specialist contaminated land consultant and separated into contaminated materials, if any, uncontaminated fill or ENM.

Uncontaminated fill or ENM should be retained on site and managed appropriately for beneficial re-use for filling earthworks. As a last resort, remaining uncontaminated fill or ENM is to be sent off-site to a licenced facility in accordance with the Protection of the Environment Operations (Waste) Regulation 2014.

For contaminated material management, refer **Section 5.7.4** of this WMP.

### 5.4 Construction Waste Types and Quantities

The Construction Site Manager will need to specify the types and quantities of wastes produced during construction and on this basis, the numbers and capacity of skip bins can be determined.

In the absence of readily available construction waste generation rates from Council, SLR has adopted the waste generation rates from Appendix A of The Hills Development Control Plan (DCP) 2012 for estimating the type and quantities of waste generated from construction of the Project. The waste generation rates listed in the Hills DCP include '2 Bedroom', '3 Bedroom', 'Block of Flats', 'Factory' and 'Office'. SLR has adopted the 'Factory' and 'Office' rates to measure waste expected from the Project, as the construction of a factory and office is the most relevant in representing the construction of the industrial warehouse and office precinct. In the absence of readily available published information for 'Carpark' construction waste generation rates, SLR has developed 'Carpark' construction rates based on the 'Office' rates by:

- Removing timber, bricks and gyprock as these materials are unlikely to be present in significant quantities in a modern carpark structure, and
- Increasing the rates for concrete, sand or soil, metal and 'other', in proportion, to maintain the total assumed tonnage per 1000 m<sup>2</sup> of construction.

<sup>9</sup>Available online from <http://returnandearn.org.au/>

The waste generation rates are shown in **Table 3**.

**Table 3 Waste generation rates for the construction of the Project**

Rate Type	Floor Area (m <sup>2</sup> )	Waste types and quantities (m <sup>3</sup> )						
		Timber	Concrete	Bricks	Gyprock	Sand or Soil	Metal	Other
Factory	1,000	0.25	2.10	1.65	0.45	4.80	0.60	0.50
Office	1,000	5.1	18.8	8.5	8.6	8.8	2.75	5
Carpark	1,000	--	30.6	--	--	14.3	4.5	8.1

The waste generation rates for 'Factory' are applied to calculate the waste quantities generated from the construction of each warehouse. The 'Office' waste generation rates are applied to calculate the waste quantities from all office administration areas. The 'Carpark' waste generation rates are applied to calculate the waste quantities from the construction of all external hard surface areas including carparks and heavy and light duty surfaces. The areas are based on the areas provided in the site plans attached in **Appendix A**.

Actual waste quantities and composition will vary; however, this estimate is provided so that the Construction Site Manager can make provision for on-site or off-site re-use and recycling opportunities.

The construction wastes quantities anticipated from the construction of Building 3B are provided in **Table 4**.

**Table 4 Estimated types and quantities of construction waste**

Project component	Area (m <sup>2</sup> )	Waste types and quantities (m <sup>3</sup> )						
		Timber	Concrete	Bricks	Gyprock	Sand and Soil	Metal	Other
Warehouse 3B-1	10,000	5	25	20	5	50	10	5
Warehouse 3B-2	10,000	5	190	85	90	90	30	50
Office 3B-1	1,000	10	5	5	5	5	5	5
Office 3B-2	1,000	10	20	10	10	10	5	5
Hardstand area	15,390	-	475	-	-	225	70	125
Light Duty Area	4,680	-	145	-	-	70	25	40
Fire track area	772	-	25	-	-	15	5	10
<b>Total</b>	<b>42,842</b>	<b>30</b>	<b>885</b>	<b>120</b>	<b>110</b>	<b>465</b>	<b>150</b>	<b>240</b>

Waste estimates have been rounded up to the nearest 5 m<sup>3</sup>.

A waste management plan form provided by Council is attached in **Appendix B**. The form is also available on Council's website<sup>10</sup>. This is to be updated by the Site Manager once waste streams, estimated quantities, and final disposal locations and recycling services have been identified.

## 5.5 Waste Avoidance

In accordance with Council's DCP and better practice waste management, the Building Contractor, Building Designer and/or equivalent roles should:

- Develop a purchasing policy based on the approximate volumes of materials to be used so that the correct quantities are purchased.

<sup>10</sup> [https://www.penrithcity.nsw.gov.au/images/documents/forms/Waste\\_Management\\_Plan\\_Application\\_Form.pdf](https://www.penrithcity.nsw.gov.au/images/documents/forms/Waste_Management_Plan_Application_Form.pdf)

- Arrange for delivery of materials on an 'as needed' basis to avoid material degradation through weathering and moisture damage.
- Communicate strategies to handle and store waste to minimise environmental, health and amenity impacts.
- Select materials with a low environmental impact over the lifecycle of the building.
- Choose timber from certified plantations and avoid unsustainable timber imports including western red cedar, oregon, meranti, luan or merbau.
- Use leased equipment rather than purchase and disposal.
- Minimise site disturbance and unnecessary excavation.
- Incorporate existing trees and shrubs into the landscape plan.
- Grouping wet areas together to minimise the amount of pipe work required.
- Design the Project to require standard material sizes or make arrangements with manufacturing groups for the supply of non-standard material sizes.
- Design works for de-construction.
- Reduce packaging waste by:
  - Returning packaging to suppliers where practicable to reduce waste further along the supply chain
  - Purchasing in bulk
  - Requesting cardboard or metal drums rather than plastics
  - Requesting metal straps rather than shrink wrap, and
  - Using returnable packaging such as pallets and reels.
- Use prefabricated materials.
- Select materials for Project works with low embodied energy properties or materials that have been salvaged or recycled for the construction of the Project including concrete that utilises slag and fly ash content, structural and reinforced steel that uses recycled steel content or bulk insulation products that contain recycled content, such as recycled glass in glass-wool.
- Preferentially use paints, floor coverings and adhesives with low VOC (volatile organic compound) content.
- Reduce the use of polyvinyl chloride products.
- Implement measures to prevent the occurrence of windblown litter, dust and stormwater pollution.
- Ensure subcontractors are informed of and implement site waste minimisation and management procedures.

## 5.6 Reuse, Recycling and Disposal

Effective management of construction materials and construction and demolition waste, including options for reuse and recycling where applicable and practicable, will be conducted. Only wastes that cannot be cost effectively reused or recycled are to be sent to landfill or appropriate disposal facilities.

Refer to **Table 2** for an outline of the proposed reuse, recycling and disposal methods for potential site preparation and construction waste streams generated by the Project.

In accordance with Council's DCP and best practice waste management, the following specific procedures should be implemented:

- Ensure the site's project management of the site includes minimising waste generation, requiring the appropriate storage and timely collection of waste materials, and maximising re-use or recycling of materials.
- Store wastes on site appropriately to prevent cross-contamination and guarantee the highest possible re-use value.
- Consider the potential of any new materials to be re-used and recycled at the end of the Project's life.
- Determine opportunities for the use of prefabricated components and recycled materials.
- Strip topsoil from areas designated for excavation and store it on site for reuse.
- Reuse excavation material will be on-site where possible.
- Re-use formwork where appropriate.
- Retain roofing material cut-offs for re-use or recycling.
- Retain used crates for storage purposes unless damaged.
- Recycle cardboard, glass and metal wastes.
- Recycle or dispose of solid waste timber, brick, concrete, asphalt and rock, where such waste cannot be re-used on site, to an appropriately licenced construction and demolition waste recycling facility or an appropriately licenced landfill.
- Dispose of all asbestos and/or hazardous wastes in accordance with SafeWork NSW and NSW EPA requirements.
- Deliver batteries and florescent lights to drop off-site recycling facility.
- Return excess materials and packaging to the supplier or manufacturer.

## 5.7 Waste Storage and Servicing

### 5.7.1 Waste Segregation and Storage

As outlined in the Penrith DCP, waste materials produced from site preparation and construction activities are to be separated at the source and stored separately on-site. It is anticipated that the Project will provide enough space on-site for separate storage, for example, separate skip bins or appropriately managed stockpiles, of the following waste types:

- Bricks, concrete and scrap metal
- Metal and steel, in a condition suitable for recycling at metal recycling facilities
- Timber
- Glass
- Hardstand rubble
- Uncontaminated excavation spoil, if present

- Contaminated excavation spoil, if present
- Hazardous waste, if present
- Paper and cardboard
- General co-mingled recycling waste, and
- Non-recyclable general waste.

If there is insufficient space on-site for full segregation of waste types, the Site Manager, or equivalent role, should consult with the waste and recycling collection contractor to confirm which waste types may be co-mingled prior to removal from the site.

### 5.7.2 Waste Storage Areas

Waste storage areas will be accessible and allow enough space for storage and servicing requirements. The storage areas will also be flexible in order to cater for change of use throughout the project. Where space is restricted, dedicated stockpile areas are to be delineated on the site, with regular transfers to dedicated skip bins for sorting.

All waste placed in skips or bins for disposal or recycling will be adequately contained to ensure that the waste does not fall, blow, wash or otherwise escape from the site. Waste containers and storage areas are to be kept clean and in a good state of repair.

As per Council's DCP, areas designated for waste storage should:

- Allow unimpeded access by site personnel and waste disposal contractors
- Consider environmental factors which could potentially cause an impact to the waste storage, such as slope, drainage and the location of watercourses and native vegetation
- Allow enough space for the storage of garden waste and other waste materials on-site
- Employ adequate environmental management controls to prevent off-site migration of waste materials and contamination from the waste. For example, consideration of slope, drainage, proximity relative to waterways, stormwater outlets and vegetation
- Consider visual amenity, safety, accessibility and convenience in their selection, and
- Not present hazards to human health or the environment.

### 5.7.3 Waste Servicing and Record Keeping

The Site Manager or equivalent role is to:

- 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:
  - Descriptions and estimated amounts of all waste materials removed from site
  - Details of the waste and recycling collection contractors and facilities receiving the waste and recyclables

- Records of waste and recycling collection vehicle movements, for example, date and time of loads removed, licence plate of collection vehicles, tip dockets from receiving facility, and
- 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 Council, SafeWork NSW or NSW EPA, and
- Remove waste during hours approved by Council.

If skips and bins are reaching capacity, removal and replacement should be organised as soon as possible. All site generated building waste collected in the skips and bins will leave the site and be deposited in the approved site lawfully able to accept them.

#### 5.7.4 Contaminated or Hazardous Waste Management

During the site preparation and construction phases, SLR recommends that a qualified and certified contractor is engaged to remove all contaminated or hazardous materials, for example, asbestos, and dispose of all contaminated or hazardous waste at an appropriately licenced facility.

All asbestos and other hazardous waste must be handled according to appropriate legislation and regulation including the Work Health and Safety Regulation 2017.

In accordance with Council's DCP, hazardous waste management at the site may require a licence from the EPA and approval from Council. If hazardous waste is identified for removal, Council and NSW EPA are to be consulted prior to undertaking any hazardous waste removal.

### 5.8 Site Inductions

All staff, including sub-contractors and labourers, employed during the site preparation and construction phases of the Project must undergo induction training regarding waste management for the Site.

Induction training is to cover, as a minimum, an outline of the WMP including:

- Legal obligations and targets
- 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.

It is the responsibility of the Site Manager or Building Contractor to notify Council of the appointment of waste removal, transport or disposal contractors.

## 5.9 Signage

Standard signage is to be posted in all waste storage and collection areas. All waste containers should be labelled correctly and clearly to identify stored materials.

Signs approved by the NSW EPA for labelling of waste materials are available online<sup>11</sup> and should be used where applicable. A selection of signs prepared by NSW EPA is provided in **Figure 3**.



**Figure 3** Examples of NSW EPA labels for waste skips and bins

## 5.10 Monitoring and Reporting

The following monitoring practices are to be undertaken to improve site preparation and construction waste management and to obtain accurate waste generation figures:

- Conduct waste audits of current projects where feasible.
- Note waste generated and disposal methods.
- Look at past waste disposal receipts.
- Record this information to track waste avoidance, reuse and recycling performance and to help in waste estimations for future waste management plans.

As per Council's DCP, records of waste volumes recycled, reused or contractor removed are to be maintained. This can include dockets or receipts verifying recycling and disposal in accordance with this WMP. This evidence should also be presented to regulatory bodies when required.

Daily visual inspections of waste storage areas will be undertaken by site personnel and inspection checklists and logs recorded for reporting to the Site Manager on a weekly basis or as required. These inspections will be used to identify and rectify any resource and waste management issues.

Waste audits are to be carried out by the Building Contractor to gauge the effectiveness and efficiency of waste segregation procedures and recycling and reuse initiatives. Where audits show that the above procedures are not carried out effectively, additional staff training will be undertaken and signage re-examined.

<sup>11</sup> NSW EPA approved waste materials signage <https://www.epa.nsw.gov.au/your-environment/recycling-and-reuse/business-government-recycling/standard-recycling-signs>

## 5.11 Roles and Responsibilities

All personnel have a responsibility for their own environmental performance and compliance with all legislation. It will be the responsibility of the Building Contractor to implement the WMP, and an employee and subcontractor responsibility to ensure that they always comply with the WMP.

Where possible, an Environmental Management Representative should be appointed for the Project. Suggested roles and responsibilities are provided in **Table 5**.

**Table 5 Suggested roles and responsibilities for site preparation and construction waste management**

Responsible Person	General Tasks
Construction Site Manager	Ensuring plant and equipment are well maintained.
	Ordering only the required amount of materials.
	Keeping materials segregated to maximise reuse and recycling.
	Ultimately responsible for routinely checking waste sorting and storage areas for cleanliness, hygiene and safety issues, contaminated waste materials, and also ensuring that all monitoring and audit results are well documented and carried out as specified in the WMP.
Construction Environmental Manager or equivalent	Approaching and establishing the local commercial reuse of materials where reuse on-site is not practical.
	Establishing separate skips and recycling bins for effective waste segregation and recycling purposes.
	Ensuring staff and contractors are aware of site requirements.
	Provision of training of the requirements of the WMP and specific waste management strategies adopted for the Project.
	Contaminated waste management and approval of off-site waste transport, disposal locations and checking licensing requirements.
	Approval of off-site waste disposal locations and checking licensing requirements.
	Assessment of suspicious potentially contaminated materials, hazardous materials and liquid wastes.
	Monitoring, inspection and reporting requirements.

Daily visual inspections of waste storage areas may be delegated to other on-site staff. All subcontractors will be responsible for ensuring that their work complies with the WMP through the project induction and contract engagement process.

## 6 Operational Waste Management

### 6.1 Targets for Resource Recovery

The waste management performance of each new development should contribute to the overall NSW State targets for recycling outlined in the *NSW Waste Avoidance and Resource Recovery Strategy 2014-21*. The targets include increasing waste diverted from landfill to 75% and recycling 70% of commercial, industrial and municipal solid waste<sup>12</sup>. Each commercial and industrial development can contribute to this NSW State target through an effective waste management plan.

It is anticipated that the waste minimisation measures in the following sections will assist the Project to meet the state’s targets. Waste reporting and audits can be used to determine the actual percentage of waste that are being, or have been, recycled during operation.

### 6.2 Waste Streams and Classifications

The operation of the Project is anticipated to generate the following broad waste streams:

- Domestic wastes generated by employees, including food wastes
- Bulk packaging wastes, including polystyrene, plastic wrapping and cardboard boxes
- Office waste
- Garden organic waste from landscaped areas
- Bulky waste items such as furniture and e-waste
- Stores, plant and general maintenance wastes, and
- Asbestos waste produced from site visits.

Potential ongoing waste types, their associated waste classifications, and management methods are provided in **Table 6**. For further information on how to determine a waste’s classification, refer to the NSW EPA (2014) Waste Classification Guidelines. Suggestions for recycling drop off locations and contacts can be found on <https://businessrecycling.com.au/> for each waste type.

**Table 6 Potential waste types, classifications and management methods for operational waste**

Waste Types	NSW EPA Classification	Proposed Management Method
<b>General Operations</b>		
Clean office paper	General solid (non-putrescible) waste	Paper recycling at off-site licensed facility
Cardboard including bulky cardboard boxes	General solid (non-putrescible) waste	Cardboard recycling at off-site licensed facility

<sup>12</sup> <https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/wastestrategy/140876-warr-strategy-14-21.pdf?la=en&hash=EC6685E6624995242B0538B18C2E80C0CA2E51B3>

Waste Types	NSW EPA Classification	Proposed Management Method
Recyclable beverage containers, glass and plastic bottles, aluminium cans, steel cans	General solid (non-putrescible) waste	NSW container deposit scheme 'Return and Earn', container recycling at off-site licensed facility
Food waste	General solid (putrescible) waste	Compost on or off-site or dispose to landfill with general garbage
Batteries	Hazardous waste	Off-site recycling, alternatively contact the Australian Battery Recycling Initiative for more information
Mobile Phones	Hazardous waste	Off-site recycling; can be taken to the Mobile Muster program. Contact Mobile Muster for more information
Bulky polystyrene	General solid (non-putrescible) waste	Off-site recycling or disposal at landfill
Furniture	General solid (non-putrescible) waste	Off-site reuse or disposal to landfill
E-waste	Hazardous waste	Off-site recycling
Printer toners and ink cartridges	Hazardous waste	Off-site recycling, free disposal box or bags and pickup service exists for printer toners and ink cartridges
General garbage, including non-recyclable plastics	General solid (putrescible and non-putrescible) waste	Disposal at landfill
<b>Maintenance</b>		
Spent smoke detectors <sup>13</sup>	General solid (non-putrescible) waste, or Hazardous waste (some commercial varieties)	Disposal to landfill, or off-site disposal at licensed facility
Glass, other than containers	General solid (non-putrescible) waste	Off-site recycling
Light bulbs and fluorescent tubes	Hazardous waste	Off-site recycling or disposal, contact FluoroCycle <sup>14</sup> or Lamp Recyclers <sup>15</sup> for more information
Cleaning chemicals, solvents, area wash downs, empty oil or paint drums, chemical containers	Hazardous waste if containers used to store Dangerous Goods (Class 1, 3, 4, 5 or 8) and residues have not been removed by washing or vacuuming. General solid (non-putrescible) waste if containers cleaned by washing or vacuuming.	Transport to comply with the transport of Dangerous Goods Code applies in preparation for off-site recycling or disposal at licensed facility.

<sup>13</sup> The Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) require that when more than 10 smoke alarms (particularly americium-241 sources) are collected for bulk disposal they must be treated as radioactive waste and the requirements of the National Health and Medical Research Council's Code of practice for the near-surface disposal of radioactive waste in Australia (1992) must be met.

<sup>14</sup> <https://www.fluorocycle.org.au/>

<sup>15</sup> <https://www.lamprecyclers.com.au/>

Waste Types	NSW EPA Classification	Proposed Management Method
Garden organics - lawn mowing, tree branches, hedge cuttings, leaves	General solid (non-putrescible) waste	Reuse on-site or contractor removal for recycling at licenced facility
<b>Hazardous</b>		
Asbestos	Special waste	Off-site disposal at a licenced landfill facility.

### 6.3 Estimated Quantities of Operational Waste

SLR has adopted the 'Offices' and 'Warehouse' waste generation rates from Council's DCP Industrial, Commercial and Mixed-Use Waste Management Guidelines for estimating the type and quantities of waste generated from the operational activities of the Project. The operational waste generation rates used are shown below in **Table 7**.

**Table 7 Waste generation rates applied to the operations of the Project**

Type of Premises	General Waste Generation (L/100 m <sup>2</sup> /day)	Recycling Generation (L/100 m <sup>2</sup> /day)
Warehouse	10	10
Offices	10	10

Using the waste generation rates in **Table 7** above, the approximate weekly waste quantities for the Project have been calculated. The operational waste quantities were also calculated based on the below assumptions:

- The floor areas as presented on the architectural drawings attached in **Appendix A**, and
- A week comprising seven days of operation

The estimated quantities of operational waste generated by the Project are shown in **Table 8**.

**Table 8 Estimated quantities of operational general waste and recycling for the Project**

Complex	Location	Area (m <sup>2</sup> )	General Waste (L/week)	Recycling (L/week)
Warehouse 3B-1	Warehouse 3B-1	10,000	7,000	7,000
	Office 3B-1	1,000	700	700
	<b>Total</b>	<b>11,000</b>	<b>7,700</b>	<b>7,700</b>
Warehouse 3B-2	Warehouse 3B-2	10,000	7,000	7,000
	Office 3B-2	500	350	350
	<b>Total</b>	<b>10,500</b>	<b>7,350</b>	<b>7,350</b>

Waste quantity estimates have been rounded up to the nearest 5 L.

To minimise packaging waste generated in the recyclables stream, it is recommended that packing waste is returned to the suppliers where possible. Standard pallets are recommended to be returned to their owners and non-standard and broken pallets are to be stockpiled and collected as required by a private waste contractor.

As per Council's DCP, food scraps should be placed in specialised containment bins and collected on a regular basis. To minimise food waste in the general waste stream, it is recommended that the food is donated, composted on site or sent off-site to a composting facility.

If additional collection services are required, such as secured document destruction, these can be organised with a private waste contractor who can provide additional bins and take collected waste to an off-site licenced facility.

The Project is anticipated to produce minimal quantities of garden organics. Less than 100 L of garden organics are estimated to be generated per week. This waste will be taken by a landscaping contractor who will dispose of it at an off-site licenced facility.

## 6.4 Waste Storage Area Size

For both warehouses, the waste storage area must be large enough to adequately store all quantities of operational waste and recycling between collections.

All waste storage room calculations have considered the bin dimensions listed in Council's DCP, as outlined in **Table 9**.

**Table 9** Dimensions and approximate footprint of bins

Dimension	Height (mm)	Depth (mm)	Width (mm)	Gross Floor Area (GFA) (m <sup>2</sup> )
3 m <sup>3</sup>	1,540	1,520	2,060	3.13

To allow for ready movement of bins into and out of the bin storage area, the bin storage area is to provide a floor area of at least twice the total minimum bin GFA. This can also act as a contingency in the event of spikes in waste generation. Additionally, in accordance with Council's DCP, an additional 0.2 m is to be permitted between the bins to allow for manoeuvrability. This has been considered in the calculation of the waste storage area for each of the buildings in the Project.

The recommended storage areas do not include consideration for the storage of bulky and hazardous waste. For the additional storage space for bulky and hazardous waste, refer to **Section 6.4.2** and **Section 6.4.3**.

### 6.4.1 Operational waste

The estimated number of bins required for weekly storage of operational waste and recycling generated by the Project are shown in **Table 10** and are based on:

- The estimated quantities of operational waste and recycling as shown in **Table 8**
- Bin dimensions from the Council's DCP as shown in **Table 9**

The estimated number of bins required for weekly storage of operational waste and recycling generated by the project is shown in **Table 10**.

**Table 10 Minimum number of bins and waste storage area for operational waste of the Project**

Location	Bins Required		Collection frequency		Recommended Storage Area (m <sup>2</sup> )
	General Waste	Comingled Recycling	General Waste	Comingled Recycling	
Warehouse 3B-1	1 x 3 m <sup>3</sup>	1 x 3 m <sup>3</sup>	3	3	12.5
Warehouse 3B-2	1 x 3 m <sup>3</sup>	1 x 3 m <sup>3</sup>	3	3	12.5

#### 6.4.2 Bulky Waste Management

As outlined in the Penrith DCP, additional storage space for the bulky waste stream must be provided. This stream includes broken pallets, broken storage units, e-waste and other materials that cannot be disposed of in the general or recyclable waste stream.

Council's guidelines do not provide storage area dimensions for bulky waste. In the absence of dimensions provided by Council, SLR has adopted storage area dimensions for bulky waste presented in The City of Sydney's Guidelines for Waste Management in New Developments. These are applied as they are the most recent recommendations for bulky waste storage that have been provided in guidelines for new developments in NSW and are applicable to non-residential developments. The recommended space for storing bulky wastes should be at least:

- 4 m<sup>2</sup> for developments between 100 m<sup>2</sup> and 2,000 m<sup>2</sup>, and
- An additional 4m<sup>2</sup> for developments over 2,000 m<sup>2</sup> and for every 20,000 m<sup>2</sup> of office space.

SLR recommends 8 m<sup>2</sup> to be allocated for bulky waste storage. Hence in addition to the recommended waste storage area noted in **Table 10**, the total waste storage area recommended for the Project is identified in **Table 11**.

**Table 11 Total recommended storage area for operations at the Project**

Location	Recommended Storage Area (m <sup>2</sup> )		
	Waste and Recycling	Bulky waste	Total Storage Area
Warehouse 3B-1	12.5	8	20.5
Warehouse 3B-2	12.5	8	20.5

Management may consider organising a skip on a monthly basis or as required to remove bulky waste items or engage a contractor to collect and transport these items for reuse, recycling or disposal at an EPA licensed facility.

SLR recommends the waste storage areas for the project are shown on the architectural drawing attached in **Appendix A** in line with Council's requirements.

#### 6.4.3 Hazardous Waste Management

As per communication from the Client, the occupier of warehouse 3B-1 will be producing offsite small amounts of asbestos waste, which will be transported back to this facility to be disposed of in one of two specialised asbestos containment bins. We have assumed these bins to be 240 L bins in accordance with the small amounts of asbestos likely to be produced.

In accordance with Council's DCP and best practice waste management, hazardous waste at the site must be placed in specialised containment bins, clearly signposted and labelled, securely locked and may require a licence and consultation from the EPA and approval from Council. Hazardous waste removal is to be undertaken as needed by appropriately licensed specialised contractors.

**Table 12** below outlines the total minimum combined space recommended for the general waste and recycling, bulky waste and hazardous waste storage for each area of the Project.

**Table 12 Waste storage area requirements including hazardous waste**

Building	Space required for general and recycling waste, and bulky waste (m <sup>2</sup> )	Space required for hazardous waste storage (m <sup>2</sup> )	Total space required (m <sup>2</sup> )
3B-1	20.5	0.85	21.4
3B-2	20.5	NA	20.5

SLR recommends that waste audits be undertaken approximately one month into the operational phase of the Project to quantify actual waste generation rates. The assessment of generated waste quantities will be influenced by management, employee and tenant attitudes to recycling and disposal, and the adequacy of signage and education provided for occupants.

## 6.5 Waste Storage Room Location

In accordance with Council's DCP, the design for the waste storage areas of the Project are to take into consideration better practice waste management and recommendations from Council's DCP. In accordance with better practice waste management and Council's DCP, the waste storage area should be located so that:

- It is located away from primary street frontages
- It is near any on-site loading bays
- It is convenient, safe, functional and directly accessible to users in each tenancy and servicing collection staff, but inaccessible to the public
- It avoids pedestrian or vehicular traffic hazards likely to be caused by waste collection and storage,
- It has 1.8 m zone of unobstructed clearance between the waste storage area and the entrance.

As per Council's DCP, the nominated collection areas for each warehouse are to be clearly nominated on site plans accompanying development applications. SLR recommends this WMP be updated when the waste storage areas are shown on the site plan, in accordance with Council requirements.

## 6.6 Waste Storage Area Features

In accordance with better practice waste management and Council's DCP, the Project's waste storage areas should have the following features:

- Blend in with the design of the wider development and the surrounding streetscape
- Be well lit and well-ventilated
- Fully enclosed and walled
- Adequate vermin prevention measures

- 
- Reduce potential noise and odour impacts
  - Enhance safety for the public
  - Be connected to a water outlet for washing purposes
  - Equipped with a hot and cold tap-based water supply centralised mixing valve
  - Floor graded to a central drainage point which is connected to the sewer
  - Have water discharge from washing flow to a sewer approved by the relevant authority
  - Waterproofed and sealed non-slip floor constructed in accordance with the Building Code of Australia.
  - Waste equipment is protected from theft and vandalism
  - Be fully enclosed, walled and not permit through access to other on-site waste infrastructure
  - Have a minimum 2.7 m unobstructed internal room height in accordance with the Building Code of Australia
  - Adequate lighting and natural or mechanical ventilation in accordance with the Building Code of Australia
  - Provide suitable dual door access with a minimum width of 1.8 m and a minimum 1.8 m unobstructed access corridor for the service of bins
  - Provide administrative management, including signage to ensure appropriate use
  - Be screened from public areas to reduce the impacts of noise, odour and visual amenity, and
  - Flexible in design to allow for future changes in operation, tenancies and uses.

## 6.7 Waste Servicing

Based on communication with the Client, SLR understands that waste collections will be undertaken through a private contractor. The following general waste servicing access requirements should be implemented:

- Waste will be removed regularly.
- Arrangements should be in place so that the waste and recycling storage rooms are not accessible to the general public.

In accordance with Council's DCP, the following is required for the access provisions for of waste collection vehicles:

- Collection vehicles must be able to enter and exit the collection area in a forward direction
- Drawings must show the site's entry point, vehicle's route of travel and manoeuvring
- Swept path models must illustrate how a standard waste collection vehicle will enter, service and exit the site
- A 0.5 m unobstructed clearance is required from all obstructions for the vehicle's ingress and egress manoeuvres
- For rear loaded vehicles, an additional 2 m unobstructed loading zone is required behind the vehicle for the loading of 1,100 L bins. Additionally, a 0.5 m side clearance is required on either side of the vehicle for driver movements and accessibility

- Unobstructed access, adequate driveways and ramps of sufficient strength to support waste collection
- A structural engineer's report is to accompany the DA and confirm that all infrastructure used for vehicle ingress and egress movements can support the waste collection vehicle's weight. Council's DCP consists of dimensions for waste collection vehicles.

The collection vehicles required for 3 m<sup>3</sup> front lift bins require 6.2 m height clearance to empty the bins. Therefore, front-lift bins are commonly used in outdoor areas with no restrictions on overhead clearance. For this reason, SLR recommends that the waste storage areas be in an outdoor area with no restrictions on overhead clearance.

SLR recommends that the design of the Project is reviewed by a traffic specialist and that the drawings are updated to be in accordance with Council's servicing requirements listed above. This WMP should be updated to reflect those updates.

Hazardous waste produced at the site will be collected by appropriately licensed specialised services.

Once a private waste contractor is engaged, a valid waste and recycling collection contract is recommended to demonstrate disposal at a waste facility lawfully able to accept it. Written evidence of the valid contract should be kept on-site.

## 6.8 Waste Avoidance, Reuse and Recycling Measures

### 6.8.1 Waste Avoidance

Waste avoidance measures include:

- Participating in take-back services to suppliers to reduce waste further along the supply chain
- Avoiding printing where possible
- Review of packaging design to reduce waste but maintain 'fit for purpose'
- Providing ceramic cups, mugs, crockery and cutlery rather than disposable items
- Purchasing consumables in bulk to avoid unnecessary packaging
- Presenting all waste reduction initiatives to staff as part of their induction program, and
- Investigating leased office equipment and machinery rather than purchase and disposal.

### 6.8.2 Re-use

Possible re-use opportunities include establishing systems with in-house and supply chain stakeholders to transport products in re-useable packaging where possible.

### 6.8.3 Recycling

Recycling opportunities include:

- Collecting and recycling e-wastes
- Flatten or bale cardboard to reduce number of bins required
- Paper recycling trays provided in office areas for scrap paper collection and recycling

- Collecting printer toners and ink cartridges in allocated bins for appropriate contractor recycling, and
- Development of 'buy recycled' purchasing policy.

## 6.9 Communication Strategies

Waste management initiatives and management measures should be clearly communicated to building managers, owners, employees, customers and cleaners. Benefits of providing this communication include:

- improved satisfaction with services
- increased ability and willingness to participate in recycling
- improved amenity and safety
- improved knowledge and awareness through standardisation of services
- increased awareness or achievement of environmental goals and targets
- reduced contamination of recyclables stream
- increased recovery of recyclables and organics material, if implemented, and
- greater contribution to targets for waste reduction and resource recovery, the environment and heritage conservation.

To realise the above benefits, the following communication strategies should be considered:

- Use consistent signage and colour coding throughout the Project
- Ensure all staff are trained in correct waste separation and management procedures
- Provide directional signage to show location of and routes to waste storage area
- General waste and co-mingled recycling bins should be clearly labelled and colour-coded to ensure no cross contamination, where applicable
- Employees and cleaners should adhere to the WMP for compliance, in consultation with management, and
- Repair signs and labels promptly to avoid breakdown of communications.

## 6.10 Signage

As outlined in the Penrith DCP, the waste storage and collection areas should be provided with appropriate signage. These signs should clearly identify waste management procedures and provisions to contractors, tenants and visitors should be distributed around the Project.

Signs which clearly identify waste management procedures and provisions to staff and visitors should be distributed around the Project. Key signage considerations are:

- Clear and correct labelling on all waste and recycling bins, indicating the correct type or types of waste that can be placed into a given bin, as shown in **Figure 4**
- Signposts and directions to location of waste storage areas
- Clear signage in all waste storage areas to instruct users how to correctly separate waste and recycling

- Maintaining a consistent style colour scheme and system for signs throughout the Project, and
- Emergency contact information for reporting issues associated with waste or recycling management.

Colour-coded and labelled bin lids are necessary for identifying bins. All signage should conform to the relevant Australian Standard and use labels approved by the NSW EPA<sup>16</sup>. The design and use of safety signs for waste rooms and enclosures should comply with Australian Standard AS 1319 Safety Signs for the Occupational Environment and clearly describes the types of materials designated for each bin.



Figure 4 Example of bin labels for operational waste

## 6.11 Monitoring and Reporting

Monitoring is recommended to ensure waste and recycling management arrangements and provisions for the Project are functional, practical and are maintained to the standard outlined in this plan, at a minimum.

Visual assessments of bins and bin storage areas should be conducted by the building manager, at minimum:

- Weekly, in the first two months of operation to ensure the waste management system is sufficient for the operation, and
- Every six months, to ensure waste is being managed to the standards outlined in this document.

In addition, audits are to be conducted on a half-yearly basis to ensure WMP provisions are maintained.

Quantities of waste and recycling associated with disposal of waste and recycling, including dockets, receipts and other physical records should be recorded by the Building Manager. This is to allow reviews of the waste management arrangements and provisions at the site over time. Records of waste disposal should also be available to regulatory authorities such as the NSW Environmental Protection Authority and SafeWork NSW, upon request.

Any deficiencies identified in the waste management system, including, but not limited to, unexpected waste quantities, is to be rectified by the Building Manager as soon as it is practical. Where audits show that recycling is not carried out effectively, management should carry out additional staff training, signage re-examination and reviews of the waste management system where the audit or other reviewing body has deemed necessary. If this waste management plan no longer sufficiently meets the needs of the Project, review and updates to maintain suitability must be undertaken.

<sup>16</sup> NSW EPA waste signage and label designs <http://www.epa.nsw.gov.au/wastetools/signs-posters-symbols.htm>

## 6.12 Roles and Responsibilities

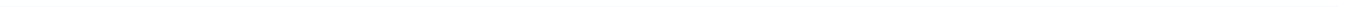
It is the responsibility of the Building Manager, or equivalent role, to implement this WMP and a responsibility of all warehouse tenants and staff to follow the waste management procedures set out by the WMP. SLR recommends that all subcontractors enlisted by the Client are to have roles and responsibilities identified and the Project's waste management system clearly explained. A summary of recommended roles and responsibilities are provided in **Table 13**.

**Table 13 Operational waste management responsibility allocation**

Responsible Person	General Tasks
Management	Ensure the WMP is implemented throughout the life of the operation.
	Update the WMP on a regular basis (e.g. annually) to ensure the Plan remains applicable.
	Undertake liaison and management of contracted waste collections.
	Organise internal waste audits on a regular basis.
	Manage any complaints and non-compliances reported through waste audits etc.
	Perform inspections of all waste storage areas and waste management equipment on a regular basis.
	Organise cleaning and maintenance requirements for waste management equipment.
	Monitor bins to ensure no overfilling occurs.
	Ensure effective signage, communication and education is provided to alert visitors, employees and cleaners about the provisions of this WMP and waste management equipment use requirements.
	Monitor and maintain signage to ensure it remains clean, clear and applicable.
	Ensure waste and recycling storage rooms are kept tidy.
	Ensure that regular cleaning and daily transfer of bins is being undertaken by the cleaners
	Ultimately responsible for the management of all waste management equipment, cleaning requirements, waste transfer and collection arrangements.
Cleaners and Staff	Removal of general waste, recyclables, cardboard waste and hazardous waste from floor areas for transfer to centralised waste and recycling collection rooms daily or as required.
	Cleaning of all bins and waste and recycling rooms on a weekly basis or as required.
	Compliance with the provisions of this WMP.
Gardening Contractor, as applicable	Removal of all garden organics waste generated during gardening maintenance activities for recycling at an off-site location or reuse as organic mulch on landscaped areas.

# APPENDIX A

## ARCHITECTURAL DRAWINGS



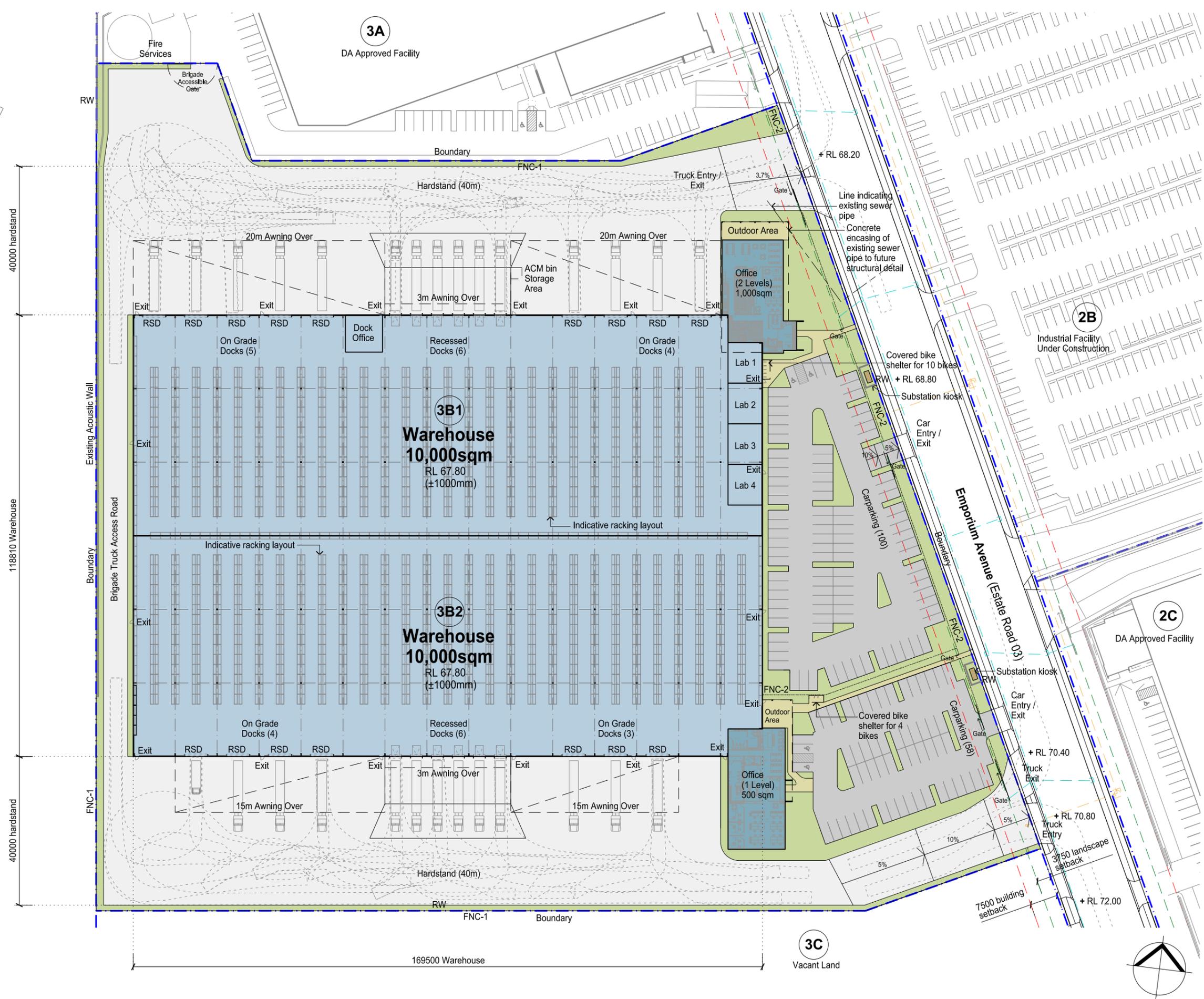


**Legend**

- Site Boundary
- Lot Boundary
- Building 7.5m Setback (For Estate Road Only)
- Landscape 3.75m Setback (For Estate Road Only)
- FNC-1 Chainwire Fencing
- FNC-2 Palisade Fencing
- RW Retaining Wall

**Development Area Schedule**

Site Area	46,198 sqm
Warehouse 3B-1 <small>(Inclusive of Dock Office &amp; Labs)</small>	10,000 sqm
Warehouse 3B-2	10,000 sqm
Office 3B-1 (2 levels)	1,000 sqm
Office 3B-2 (1 level)	500 sqm
<b>Total Building Area</b>	<b>21,500 sqm</b>
Awning	4,215 sqm
Site Cover (exc. awning)	47 %
Floor Space Ratio	0.47 : 1
Hardstand Area	15,910 sqm
Light Duty Area	4,415 sqm
Fire Track Area	772 sqm
Carparking 3B-1 <small>(Inclusive of 2 disabled spaces and 3 x EV Charging Stations with provision of 3 additional stations in the future)</small>	100
Carparking 3B-2 <small>(Inclusive of 2 disabled spaces and 3 x EV Charging Stations with provision of 3 additional stations in the future)</small>	58



Oakdale West Estate  
Kemps Creek, NSW

PROPOSED INDUSTRIAL FACILITY LOT 3B  
Development Application

Site & Warehouse Plan

1:500 @ A1  
1:1000 @ A3  
02 June 2021  
OAK 3B DA 20 (C)  
Job No 21116

# APPENDIX B COUNCIL WASTE MANAGEMENT PLAN FORM

# WASTE MANAGEMENT PLAN

## DEMOLITION, CONSTRUCTION AND USE OF PREMISES

.....  
If you need more space to give details, you are welcome to attach extra pages to this form.

PLEASE COMPLETE ALL PARTS OF THIS FORM THAT ARE RELEVANT TO YOUR DEVELOPMENT APPLICATION (DA).

IF YOU NEED MORE SPACE TO GIVE DETAILS, YOU ARE WELCOME TO ATTACH EXTRA PAGES TO THIS FORM.

Council will assess the information you provide on this form along with your attached plans. We will take into account the types and volumes of waste that could be produced as a result of your proposed development, and how you are planning to:

- minimise the amount of waste produced
- maximise re-use and recycling
- store, transport and dispose of waste safely and thoughtfully.

### APPLICANT DETAILS

First name

Surname

Postal Address

Street No.

Street name

Suburb

Post code

Contact phone number

Email address

### DETAILS OF YOUR PROPOSED DEVELOPMENT

Street No.

Street name

Suburb

Post code

What buildings and other structures are currently on the site?

.....  
.....  
.....

Briefly describe your proposed development

.....  
.....  
.....

Applicant Signature

Date

## SECTION 1: DEMOLITION

\*Please include details on the plans you submit with this form, for example location of on-site storage areas/containers, vehicle access point/s.

Materials		Destination		
		Re-use and recycling		Disposal
Material	Estimated volume (m <sup>2</sup> or m <sup>3</sup> )	ON-SITE* Specify proposed re-use or on-site recycling	OFF-SITE Specify contractor and recycling facility	Specify contractor and landfill site
Excavation (eg soil, rock)				
Green waste				
Bricks				
Concrete				
Timber (Please specify type/s)				
Plasterboard				
Metals (Please specify type/s)				
Other				

## SECTION 2: CONSTRUCTION

\*Please include details on the plans you submit with this form, for example location of on-site storage areas/containers, vehicle access point/s.

Materials		Destination		
		Re-use and recycling		Disposal
Material	Estimated volume (m <sup>2</sup> or m <sup>3</sup> )	ON-SITE* Specify proposed re-use or on-site recycling	OFF-SITE Specify contractor and recycling facility	Specify contractor and landfill site
Excavation (eg soil, rock)				
Green waste				
Bricks				
Concrete				
Timber (Please specify type/s)				
Plasterboard				
Metals (Please specify type/s)				
Other				



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# Appendix J

## Flora and Fauna Management Plan



# Oakdale West Estate SSD 7348

## Operational Flora and Fauna Management Plan

prepared for

Goodman Property Services  
(Aust). Pty Ltd

## Oakdale West Estate SSD 7348- Operational Flora and Fauna Management Plan

prepared for

Goodman Property Services (Aust.) Pty Ltd.

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### Document control

Prepared by		
Kat Duchatel BSc. Env. CEnvP EIANZ #691 BAM Accreditation no.BAAS17054		24/03/2022

### Document status

Revision	Date	Description	Issued to
01	18/03/2021	OEMP Flora and Fauna Management Plan (FFMP)	Goodman
02	24/03/2022	OEMP FFMP updated	Goodman

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# 1. Introduction

## 1.1. Background

Goodman Property Services (Aust) Pty Ltd (Goodman) obtained Development Consent SSD 7348 for the staged development of Oakdale West Industrial Estate (the Estate) comprising a warehousing and a distribution hub at Kemps Creek in Western Sydney.

Under SSD 7348 consent condition D88 a Flora and Fauna Management Plan (FFMP) was prepared by écologique (v.7 dated 11/03/2020) as a subplan to the Construction Environmental Management Plan (CEMP), which was approved by the NSW Department of Planning's Secretary.

Most of the development activities addressed in the FFMP v.7 were associated with the bulk earthworks associated with the SSD 7348 Concept Plan and Stage 1 works. These works have been completed compliantly with the FFMP v.7, which included:

- Clearing of native vegetation and potential fauna habitat, and associated requirements:
  - Pre-clearance surveys,
  - Clearance supervision, and fauna relocation procedures,
  - Relocation of large woody debris to biodiversity management areas,
  - Installation of snake deterrent fencing along the western boundary of the Estate, and
  - Installation of snake habitat rock piles (within biodiversity management areas)
- Decommissioning of farm dams, and associated requirements:
  - Pre-dam decommissioning surveys,
  - Identification of relocation sites for aquatic fauna found in farm dams,
  - Procurement of relevant approvals for relocating aquatic fauna, and
  - Aquatic fauna rescue and relocation procedures.

This FFMP has been prepared to fulfil SSD 7348 consent condition D131 C (ii), which requires that a FFMP be prepared as a subplan to the Oakdale West's Operational Environmental Management Plan (OEMP).

## 1.2. Site context

The total area of the Estate is approximately 154 hectares (ha) of which 89 ha is General Industry (IN1) zoned land across five designated precincts (Figure 1-1). The remaining areas include regional and estate roads, easements, a services allotment and biodiversity management areas. The biodiversity management areas (BMAs) are located in five separate areas as summarised in Table 1-1 and shown on Figure 1-1.

Table 1-1. Biodiversity management areas

BMA location	Area (ha)
Ropes Creek (north eastern section)	8.0
Ropes Creek (mid eastern section)	6.2
Ropes Creek (south eastern section)	0.8
South west of transgrid easement	0.5
Western boundary of the estate	2.0
<b>Total area</b>	<b>17.5</b>

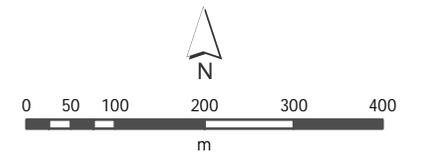


# Oakdale West Estate SSD 7348

Fig. 1-1. Site Context Operational FFMP

### Legend

-  Oakdale West boundary
-  Precincts
-  BMA\_areas



## 2. Consent Conditions

Table 2-1 summarises consent conditions fulfilled during the Estate's construction stages and Table 2-2 summarises consent conditions that are ongoing and apply to the Estate's operation.

Table 2-1. Completed consent conditions

SSD reference	Consent condition	Status
SSD 7348	<b>D88.</b> The Applicant must prepare a Flora and Fauna Management Plan (FFMP) for Stage 1, to the satisfaction of the Planning Secretary.	Completed compliantly
SSD 7348	<b>D89.</b> Bulk earthworks are not to commence until the FFMP is approved by the Planning Secretary and the most recent approved version of the FFMP is to be implemented for the duration of bulk earthworks and construction.	Completed compliantly
SSD 7348	<b>D90.</b> Within 12 months of the date of this development consent, or as otherwise agreed with the Planning Secretary, the Applicant must retire 172 ecosystem credits to offset the removal of 4.41 hectares of native vegetation on the Site.	Amended in MOD 1
MOD 1	<b>D90.</b> Within 12 months of the date of this development consent, or as otherwise agreed with the Planning Secretary, the Applicant must retire 173 ecosystem credits to offset the removal of 4.38 hectares of native vegetation on the Site.	Completed compliantly
SSD 7348	<b>D91.</b> The Applicant shall establish a Biodiversity Offset Area on the Site, consistent with the area described in the RTS, in accordance with a Biodiversity Stewardship Agreement with the Biodiversity Conservation Trust. <b>D92.</b> The Applicant must maintain the Biodiversity Offset Area on the Site in accordance with a Biodiversity Management Action Plan approved by the Biodiversity Conservation Trust (BCT).	Deleted in MOD 1
MOD 1	SSD 7348 Conditions D91 and D92 deleted and new Condition D91 inserted as follows: <b>D91.</b> Within 12 months of the date of the approval of MOD 1, or as otherwise agreed with the Planning Secretary, the Applicant must prepare and implement a VMP for the restoration and rehabilitation of 4.2 ha of Riparian Corridor adjacent to Ropes Creek to meet the objectives of the <i>Water Management Act 2000</i> .	Amended in MOD 6
MOD 6	Approval granted to amend the VMP extent as follows: <ul style="list-style-type: none"> <li>Remove locations adjacent to the future SLR (due to future disturbance from its construction)</li> <li>Increase the extent from 4.2 to 4.45 ha</li> <li>Provide a wider riparian zone, which connects to isolated patches of retained vegetation</li> </ul>	Completed compliantly
SSD 7348	<b>D93.</b> Within 12 months of the date of this development consent, or as otherwise agreed with the Planning Secretary, the Applicant must:  Offset 0.42ha of vegetation lost in the Erksine Park Biodiversity Corridor as a result of the WNSLR by carrying out planting within the area shown in the green edging on Figure 9 (Appendix 6 of consent conditions). Plant the areas shown in the green edging on Figure 9 (Appendix 6 of consent	Amended in MOD 5

SSD reference	Consent condition	Status
	conditions) with species similar to those identified for zone 4a, on the south-eastern side of Ropes Creek, in the Biodiversity Management Plan Erskine Park Employment Area (HLA-Envirosciences, 2 May 2006).	
MOD 5	<p>MOD 5 sought to amend the area within which offsetting is take place due to this area no longer being available for this purpose.</p> <p>In consultation with the Planning Ministerial Corporation a new location has been agreed on and a VMP prepared and submitted with MOD 5 that details the amended location and methods in which the now obsolete Condition D93 will be fulfilled. Conditions D94 and D95 remain unchanged.</p>	Completed compliantly
SSD 7348	<p><b>D94.</b> The Applicant shall monitor and maintain the planting for a period of six months to ensure a minimum 85% planting survival rate.</p> <p><b>D95.</b> The Applicant must notify the Planning Ministerial Corporation at least one month before the completion of planting to enable the Planning Ministerial Corporation to arrange ongoing maintenance.</p>	
SSD 7348	<b>D96.</b> Prior to construction of Stage 1, the Applicant must implement snake management measures to limit, to the extent practicable, movement of snakes from the Site into the adjacent school and retirement village on the western boundary of the Site. The measures (provision of alternative snake habitat on Site, fencing along the western boundary and installation of snake deterrents) shall be detailed in the CEMP.	Completed compliantly
MOD 7	Minor change to building layouts across Precinct 3 and 4, namely Lot 3B, 3C, and 4E, which results in minor amendments to the estate infrastructure including bulk earthworks in both precincts, the removal of an Estate Road in Precinct 4, and inclusion of additional retaining walls in Precinct 3 & 4	Not applicable - no change to FFMPs conditions
MOD 8	Modifications to approved plans for Warehouses 1A, 1B and 1C	Not applicable - no change to FFMPs conditions
MOD 9	Changes associated with the Modifications to the Concept Plan including the layout of Precinct 2A and the building height of Building 2C to facilitate the Oakdale West Estate Stage 3 Development.	Not applicable - no change to FFMPs conditions

Table 2-2. Operational consent conditions

Condition	Mitigation and management measures	Reference/Details
D131 C (ii)	The Applicant must prepare a FFMP be prepared as a subplan to the Oakdale West Operational Environmental Management Plan (OEMP).	Purpose of this FFMP
D115	<p>The Applicant must:</p> <ul style="list-style-type: none"> <li>(a) Implement suitable measures to manage pests, vermin and declared noxious<sup>#</sup> weeds on the Site; and</li> <li>(b) Inspect the Site on a regular basis to ensure that these measures are working effectively, and that pests, vermin or noxious weeds are not present on Site in sufficient numbers to pose an environmental hazard or cause the loss of amenity in the surrounding area.</li> </ul> <p><sup>#</sup> For the purposes of this condition, noxious weeds are those species subject to an order declared under the <i>Biosecurity Act 2015</i> (NSW).</p>	Refer Section 4 and Table 4 1 (Item no. FF4 and FF5) of this FFMP.
Schedule 2 (Administrative Conditions)	<p><b>OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT</b></p> <p>A1. In addition to meeting the specific performance measures and criteria in this consent, all reasonable and feasible measures must be implemented to prevent, and if prevention is not reasonable and feasible, minimise, any material harm to the environment that may result from the construction and operation of the development, and any rehabilitation required under this consent.</p>	Refer Section 4 and Table 4-1

### 3. Site Flora and Fauna

#### 3.1. Flora

##### 3.1.1 Native vegetation

Four native plant community types (PCTs) occur within the Estate, each of which are listed under either or both of the BC Act and EPBC Act (see Table 3-1). Most of these PCTs are located within the BMAs with four additional patches of native vegetation located outside of the BMAs as shown in Figure 3-1.

Table 3-1. Threatened Ecological Communities

ID	PCT common name	Status	
		BC Act	EPBC Act
PCT 835	Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin	Endangered	Vulnerable
PCT 849	Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin	Critically endangered	Critically endangered
PCT 850	Grey Box - Forest Red Gum grassy woodland on shale of the southern Cumberland Plain, Sydney Basin	Critically endangered	Critically endangered
PCT 1800	Cumberland Riparian Forest	Endangered	Vulnerable

All approved clearing of native vegetation has been completed. No further clearing of any native vegetation is permitted without first gaining additional approval.

##### 3.1.2 Vegetation Management Plan

The Oakdale West Vegetation Management Plan (VMP) was prepared to meet the objectives of the WM Act, through the rehabilitation and restoration of a riparian corridor along Ropes Creek.

During the tender phase for implementation of the VMP (écologique, 2019) a number of site constraints were identified that resulted in the extent of the VMP being amended (écologique, 2020). Approved under MOD 6, the amended VMP resulted in the following:

- Removal of areas immediately adjacent to the future Southern Link Road (SLR), due to the future construction disturbance and inevitable damage to any restoration works undertaken in this vicinity;
- Increased the VMP extent from 4.2 to 4.45 ha by providing a wider riparian zone, which connects to previously isolated patches of retained vegetation; and
- Provision of canopy and shrub plantings (only) in two separate areas (while retaining an understory of pasture) to provide grazing habitat for the resident kangaroo population (see Section 3.2.1).

The VMP area is located within the Ropes Creek mid-eastern section of the BMA (see Figure 3-2).

Outside of the VMP area, all remaining areas of the BMA are being passively managed through:

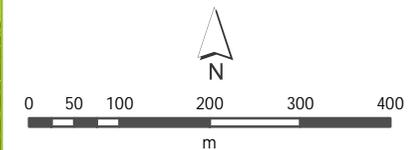
- Removal of cattle, replacement of redundant fencing and installation of new fencing (allowing natural regeneration to occur unhindered);
- Installation of large woody debris habitat (see Section 3.2.2); and
- Targeted weed control of scheduled weeds in accordance with the *Biosecurity Act 2015* and as listed in the Greater Sydney Regional Strategic Weed Management Plan 2017-2022 (see Section 3.1.3)

# Oakdale West Estate SSD 7348

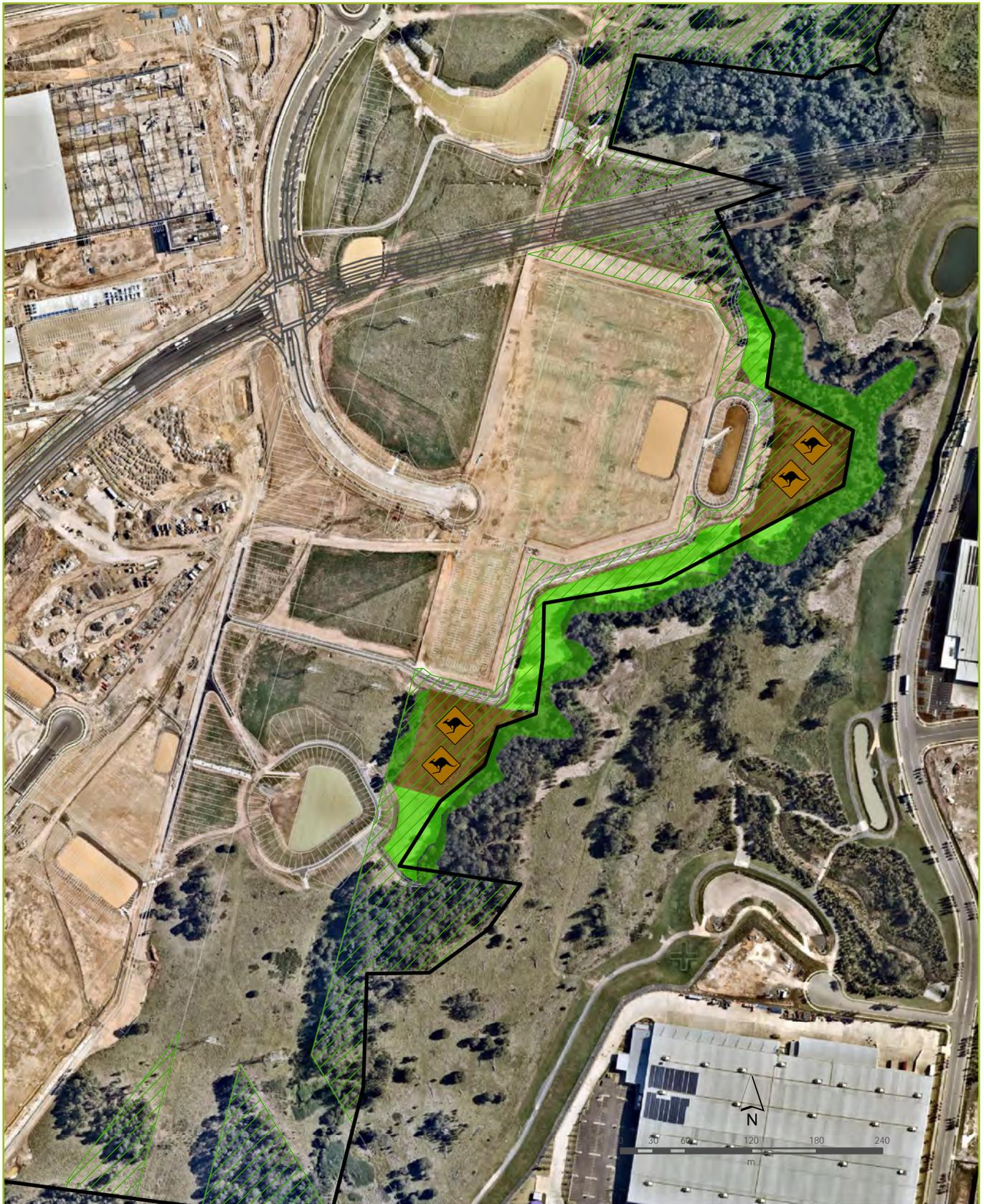
Fig. 3-1. Native vegetation



- Legend
- Oakdale West boundary
  - Precincts
  - BMA\_areas
  - Plant community types
    - PCT 850
    - PCT 849
    - PCT 835
    - PCT 1800



Coordinate System: MGA Zone 56 (GDA 2020) | Image sources: Nearmap 17 February 2022



Coordinate System: MGA Zone 56 (GDA 2020) / Image sources: Nearmap 17 February 2022

## Oakdale West Estate SSD 7348

Fig. 3-2. VMP extent

### Legend

#### VMP areas

- Regeneration
- Revegetation
- Revegetation - kangaroo habitat

- Oakdale West boundary
- BMA\_areas
- SLR

### 3.1.3 Exotic vegetation

Remaining non-developed and non-landscaped areas within the Estate are dominated by exotic grasslands and predominantly located within the Transgrid electricity easement.

Within all native vegetation and exotic grassland areas, Goodman has a general biosecurity duty (GBD) of care to control priority weed species under the *Biosecurity Act 2015* (Biosecurity Act).

The Greater Sydney Regional Strategic Weed Management Plan 2017-2022 identifies both State level and regionally determined priority weeds. Priority weeds found within the Estate and GBD requirements are summarised in Table 3-2.

Table 3-2. Priority weeds known to occur in the Estate

Species	General Biosecurity Duty
State asset protection	
<i>Asparagus aethiopicus</i> ground asparagus, <i>Asparagus asparagoides</i> bridal creeper	A person must not import into the State or sell.
<i>Rubus fruticosus</i> blackberry	
<i>Senecio madagascariensis</i> fire weed	
Regional - eradication	
<i>Dovyalis caffra</i> Kei apple	The plant is eradicated from the land and the land is kept free of the plant. Local Control Authority is notified if the plant is found on the land. The plant or parts of the plant are not traded, carried, grown or released into the environment
Regional - Containment	
<i>Alternanthera philoxeroides</i> alligator weed	Land managers mitigate the risk of the plant being introduced to their land. Land managers prevent spread from their land where feasible. Land managers reduce the impact on priority assets. A person must not move, import into the State or sell.
<i>Olea europaea</i> subsp. <i>cuspidata</i> African olive	Land managers prevent spread from their land where feasible. Land managers reduce the impact on priority assets. The plant or parts of the plant are not traded, carried, grown or released into the environment
<i>Nassella trichotoma</i> Serrated tussock	Land managers mitigate the risk of the plant being introduced to their land. The plant or parts of the plant are not traded, carried, grown or released into the environment. Local Control Authority is notified if the plant is found on the land. The plant is eradicated from the land and the land is kept free of the plant. A person must not move, import into the State or sell.
Other weeds of regional concern	Asset to be protected
<i>Araujia sericifera</i> moth vine	Environment

Species	General Biosecurity Duty
<i>Bryophyllum delagoense</i> mother of millions	Environment, Agriculture, Human health
<i>Chloris gayana</i> Rhodes grass	Environment
<i>Eragrostis curvula</i> African lovegrass	Environment
<i>Juncus acutus</i> spiny weed	Environment
<i>Pennisetum clandestinum</i> kikuyu	Environment
<i>Senna pendula</i> var. <i>glabrata</i> Cassia	Environment

### 3.2. Fauna

The former agricultural land use of the Estate and surrounding environs has enabled a range of native fauna to coexist with previous land use practices. The most commonly observed terrestrial fauna species within the Estate are the eastern grey kangaroo (*Macropus giganteus*), a range of reptile species (mainly snakes with lizards less conspicuous) and a range of bird species (including large raptor species).

Aquatic fauna common to the estate prior to the removal of four farm dams included the eastern long-necked turtle (*Chelodina longicollis*)<sup>1</sup> and both short and long finned eels (*Anguilla australis* and *Anguilla reinhardtii* respectively).

#### 3.2.1 Eastern grey kangaroo

The installation of non-rural fencing and replacement of open pastoral land with hard stand has resulted in the removal of habitat for a resident population of eastern grey kangaroos (kangaroo).

The provision of BMA and the Transgrid easement areas continue to provide habitat for the kangaroo species albeit substantially reduced in comparison to the pre-development environment. Development has also considerably altered their accustomed movement patterns. It is likely to take some time before the resident population of kangaroos adapt their movement patterns to the changed environment.

While kangaroos are more commonly seen around the periphery of the estate’s developed areas, they may still be observed nearer developed and road areas, particularly at dusk at dawn.

#### 3.2.2 Snakes

The most commonly observed snakes across the Estate are:

- Red-bellied black snake (*Pseudechis porphyriacus*); and
- Eastern brown snake (*Pseudonaja textilis*).

A tiger snake (*Notechis scutatus*) was reportedly seen on a stockpile during construction but was not accurately identified and potential a banded form of the eastern brown snake.

In response to concerns from the adjacent Emmaus Catholic College a range of snake deterrent measures were implemented to minimise movement of snakes from the estate into the school and the retirement village (located adjacent the estate’s western boundary).

These included the installation of the following:

---

<sup>1</sup> When visiting the neighbouring Oakdale South Estate, you may notice a street named ‘Chelodina’ after this species, which remains common within Ropes Creek and its tributary located in Oakdale South.

- Fencing along the western boundary designed for snake deterrence;
- Rock piles (snake refuge habitat) located within the western BMA area; and
- Placement of large woody debris (additional snake refuge habitat) located within the western BMA area.

In addition to the above snake deterrent measures (and relevant to the operational stage of the Estate) is the installation of vermin controls within each Precinct's lots. Vermin, such as the black rat (*Rattus rattus*) and house mouse (*Mus musculus*) are common snake prey and minimising the occurrence of these introduced species is anticipated to minimise snake populations.

However, the red-bellied black snake and tiger snake are frequently associated with watercourses and wetlands, where they feed on amphibians (frogs). There are numerous urban tolerant frog species that will proliferate following rainfall periods within the estate's detention / bioretention basins and drainage swales.

In combination with the use of rock riprap to construct outflows from basins (which provides ideal snake habitat) there will always be a high likelihood of snakes occurring in these areas.

### 3.2.3 Aquatic fauna

Four farm dams were decommissioned during the earthworks for the Estate's development. Native aquatic fauna was rescued and relocated to various pre-determined locations within Ropes Creek under a relevant NSW Fisheries permit.

The majority of fauna relocated comprised small native fish species (mostly fire-tailed and Empire gudgeons) and long-finned eels, with smaller numbers of short-finned eels and long-necked turtles.

Both eel species are highly migratory and may attempt to return to the locations of the decommissioned dams. Although the pre-development overland drainage has been modified such that it is highly unlikely to encounter either of these species during the operational stage of the Estate.

Turtles are also capable of overland dispersal and may attempt to return to the location where dams were decommissioned. This is more realistic as one turtle has already been captured and relocated from the development area during the construction stage.

Until all individual lot construction detention basins are decommissioned and estate wide detention basins are retro-fitted to become bioretention basins, there is a potential for migratory aquatic fauna to be encountered within the developed estate.

## 4. Potential Operational Impacts

### 4.1. Potential direct impacts

#### 4.1.1 Native vegetation

Potential direct impacts on native vegetation include unauthorised clearing of, or accidental damage to, native vegetation.

#### 4.1.2 Native fauna

Potential direct impacts on native fauna include:

- Vehicle / mobile plant strike resulting in injury or death of terrestrial fauna;
- Injury or death of fauna that inadvertently become stranded in allotments; and
- Injury or death of aquatic fauna during decommissioning of on lot and estate wide basins.

### 4.2. Potential indirect impacts

#### 4.2.1 Native vegetation

Potential indirect impacts on native vegetation include:

- Accidental spills or failure of stormwater management controls and resultant pollution of areas of remnant vegetation;
- Rubbish / litter from the site entering adjacent vegetation, through either accident drift or deliberate dumping; and
- Introduction of biosecurity risks (such as priority weeds, pathogens or other disease).

#### 4.2.2 Native fauna

Potential indirect impacts on native fauna include:

- Accidental spills or failure of stormwater management controls and resultant pollution of downstream aquatic habitat; and
- Introduction of biosecurity risks (such as feral pests, pathogens or other disease).

## 5. Mitigation Measures

The potential to encounter wildlife and the requirement for the ongoing protection of native remnant vegetation must be considered in accordance with Schedule 2 - Administrative Conditions that require:

- An obligation to minimise harm to the environment; and
- Compliance with biodiversity management and mitigation measures (see Table 5-1).

Table 5-1: Biodiversity management and mitigation measures

ID	Measure/Requirement	Responsibility
<b>GENERAL MANAGEMENT REQUIREMENTS</b>		
FF1	Ongoing management of retained native vegetation to be in accordance the Oakdale West VMP (écologique, 10/11/2020)	Management / Contractors
FF2	Ongoing maintenance and management of other areas of planted native vegetation including road batters, embankments and bio-retention basins in accordance with the Oakdale West Landscape Management Plan (Scape Design, 14/11/2019)	Management / Contractors
<b>WILDLIFE PROTECTION</b>		
FF3	All personnel including contractors are to be made aware of the possibility of encountering fauna, through any estate or individual lot works/visitor induction processes	Management / Contractors / Employees
FF4	All personnel including contractors are to report any injured or near miss incidents with wildlife	Management / Contractors / Employees
FF4	Incident reports are to be assessed on an ongoing basis. An adaptive management approach should be undertaken in the event that wildlife is being reported within the estate. Particularly, should any wildlife be killed, injured (or near misses for such) be reported from Compass Drive and estate roads (e.g., wildlife signage, information / notification to tenants)	Management

ID	Measure / Requirement	Responsibility
FF5	Regular monitoring of basin dewatering must be undertaken once water levels are below one third full to determine whether any aquatic fauna is likely to require capture and relocation.	Management / Contractors
FF6	Should unexpected fauna be encountered within any estate work sites or individual lots or sub-lot /building areas, the stop works procedure provided in Section 6 must be followed.	Management / Contractors / Employees
EROSION AND SEDIMENT CONTROL		
FF6	Offsite discharges shall be managed in strict accordance with relevant Erosion & Sediment Control Plans.	Management / Contractors
FF7	A spill kit shall be provided in an easily accessible location in the event that fuel or other contaminant spills occur.	Management / Contractors / Future tenants
WEED, PEST SPECIES AND PATHOGEN MANAGEMENT		
FF8	<p>All tenants fleet and contractor vehicles are to be clean (particularly tyres) before entering the estate - to ensure mud, weeds (and potential pathogens) from other areas are not transported into the estate.</p> <p>Tenants at their own expense, shall ensure that all material deposited on road pavements, or road reserves, is promptly and effectively removed. This may include but not be limited to:</p> <ul style="list-style-type: none"> <li>• Mud, weeds (and potential pathogens) brought in on vehicles, plant and machinery; and</li> <li>• Materials spilled from tenant’s vehicle fleet and contractor vehicles/trucks.</li> </ul>	Future tenants
FF9	Future tenants are to install rodent (electronic or sonar) repellents to minimise prey for snakes	Management / Future tenants

ID	Measure / Requirement	Responsibility
FF10	<p>Waste management shall be in accordance with relevant Waste Management Plans, which at a minimum should require the following:</p> <ul style="list-style-type: none"> <li>• All waste placed in skips or bins for disposal or recycling will be adequately contained to ensure that the waste does not fall, blow, wash or otherwise escape from the site;</li> <li>• Lids on skips or bins are to be kept closed at all times; and</li> <li>• Employ adequate environmental management controls to prevent off-site migration of waste materials and contamination from the waste. For example, consideration of slope, drainage, proximity relative to waterways, stormwater outlets and vegetation.</li> <li>• All waste entering non-developed areas of the estate, in particular BMA and landscaping areas, shall be collected and removed by tenants, at their own expense.</li> </ul>	Management / Future tenants

## 6. Stop Work Procedure

All tenants' personnel and contractors shall comply with the following procedure in the event any fauna is unexpectedly encountered:

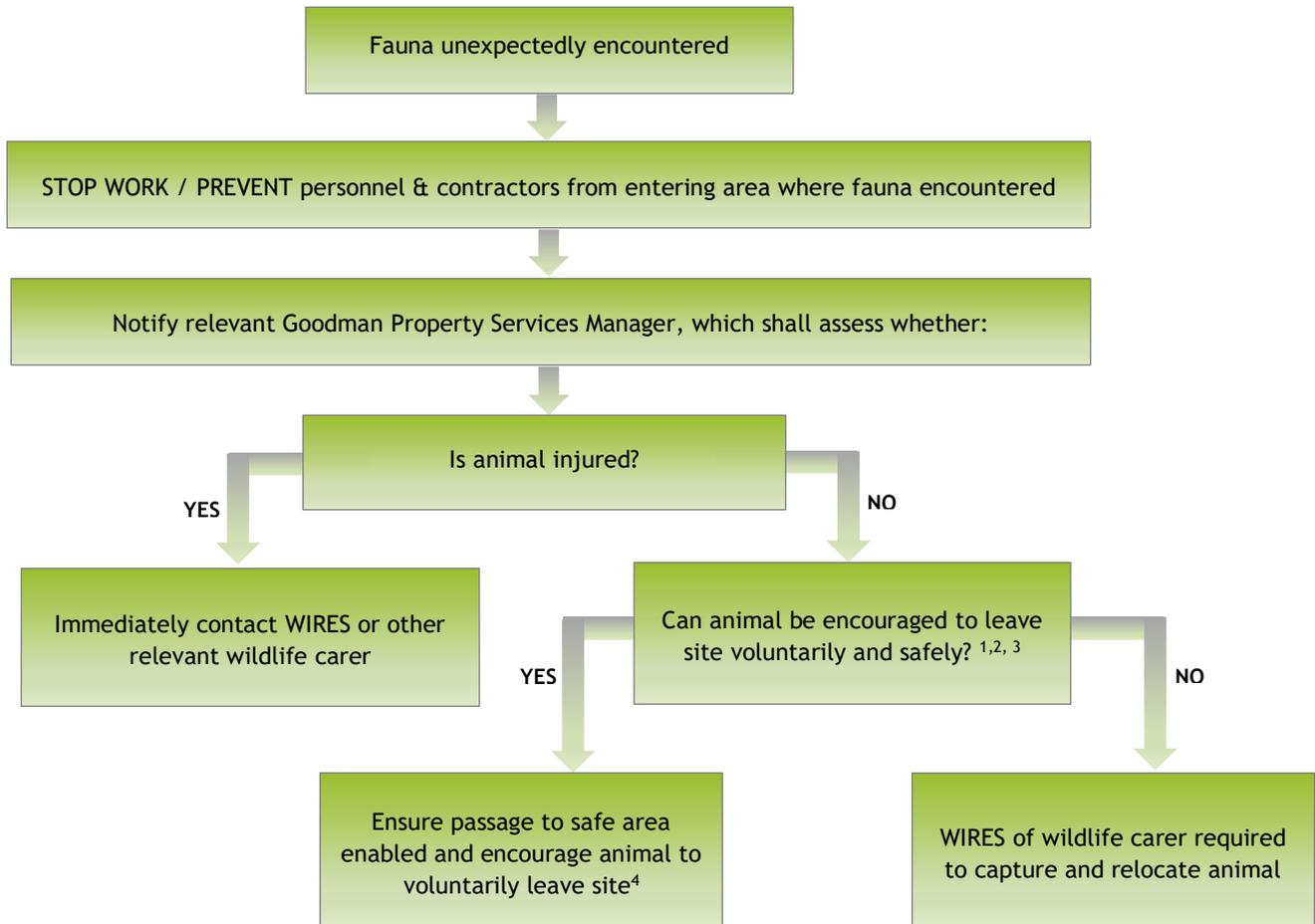


Figure 4-1. Stop work procedure

### FOOTNOTES

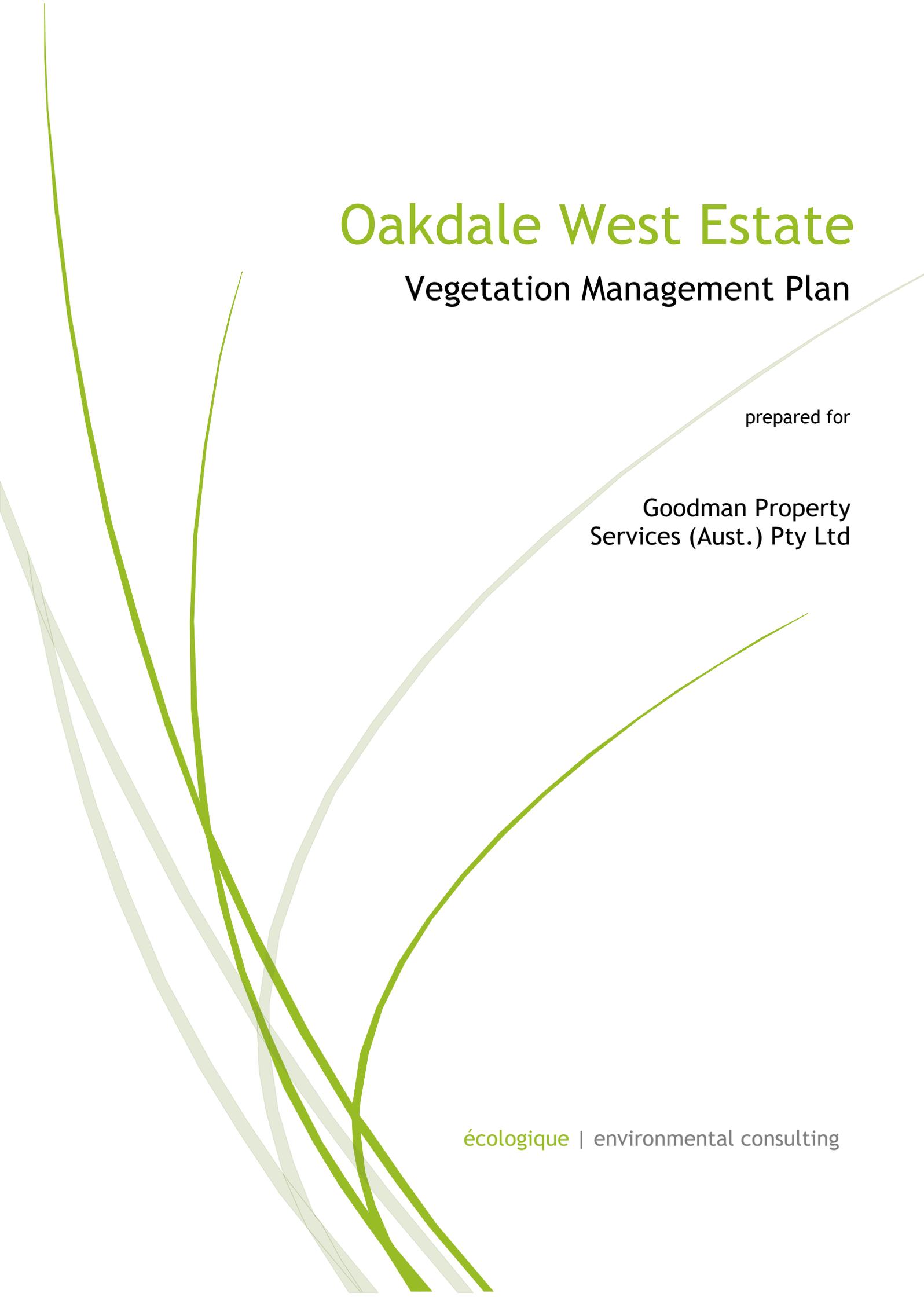
- <sup>1</sup> Snakes are to be left alone and not disturbed. A specialist reptile handler should be engaged for capture and relocation (WIRES to be contacted for advice).
- <sup>2</sup> Nocturnal species (e.g., any small marsupials such as possums) should be left alone until wildlife carer is able to capture and relocate animal at dusk.
- <sup>3</sup> Nocturnal and injured animals shall be protected from disturbance (through temporary flagging tape or signage and communication to all personnel that the area is a temporary no go zone). If animal is stranded in direct sunlight some form of shading is to be erected to protect the animal until wildlife carer arrives at the site. In the event that attempts to provide protection or shading is too distressing for animal, the animal should be left alone and monitored from a safe distance until wildlife carer arrives at the site.
- <sup>4</sup> Should safe passage be obstructed by fencing or other immovable impedances, Footnote 3 should be implemented.



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# Appendix K

## Vegetation Management Plan



# Oakdale West Estate

## Vegetation Management Plan

prepared for

Goodman Property  
Services (Aust.) Pty Ltd

écologique | environmental consulting

# Oakdale West Estate Vegetation Management Plan

prepared for

## Goodman Property Services (Aust.) Pty Ltd

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## Document control

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02/10/2019

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## Revision Schedule

Rev No	Date	Description	Issued to
1	19/07/2019	Draft VMP for review	Goodman
2	05/08/2019	VMP for MOD 1 submission	Goodman
3	02/10/2019	VMP for MOD 1 submission - amended consent condition numbers	Goodman

## Executive Summary

### Background

Goodman Property Services (Aust.) Pty Ltd (Goodman) are currently developing the Oakdale West Industrial Estate (Oakdale West) under State Significant Development approval (SSD7348). Consent approved the removal of approximately 4.4 ha of native vegetation.

Consent conditions are based on various assessment and strategy reports lodged and approved under the original SSD7348, which has included:

- Biodiversity Assessment Reports (2017, 2018) prepared under the NSW Framework for Biodiversity Assessment (FBA), which calculated that 172 ecosystem credits would need to be retired to offset native vegetation clearing (consent condition D90).
- Biodiversity Offsetting Strategies (2017, 2018), which specified how Goodman would establish and manage a biodiversity offset area in order to offset the required ecosystem credits as conditioned under consent condition D91 (which required the establishment of a biodiversity conservation area)

However, during the time since the SSD7348 was lodged and assessed, the *Threatened Species Conservation Act 1995* (TSC Act), under which the FBA was based, has been repealed and replaced by the *Biodiversity Conservation Act 2016* (BC Act).

Transitional arrangements provisioned for under the *Biodiversity Conservation (Savings and Transitional) Regulation 2017* (BC Reg.) expired in February 2018. This has resulted in the redundancy of the approved Biodiversity Offset Strategy.

### Purpose of VMP

This Vegetation Management Plan (VMP) has been prepared to support a development modification (MOD 1) for Oakdale West. Relevant to the site's biodiversity, the intent of MOD 1 is as follows:

- To overcome the redundancy of the BOS while avoiding lengthy delays associated with reassessment under new legislation.
- Meet the objectives of the *Water Management Act 2000* (WM Act) through the rehabilitation and restoration of a riparian corridor along Ropes Creek, which would otherwise have been restored as part of the proposed biodiversity offset area.

This VMP applies to an area of approximately 4.2 ha which extends along the western side of Ropes Creek as shown in Figure 1-2. The areas of the Ropes Creek corridor are considered commensurate with the proportion of the SSD7348 development footprint that has encroached onto waterfront land.

Site constraints that have been considered in determining the extent of the VMP proposed are shown on Figure 1-1 and outlined below:

- The alignment of the future Southern Link Road (SLR) which traverses the Ropes Creek riparian corridor;
- Feasible management boundaries and access constraints, given that Oakdale South's boundaries extend to the western side of Ropes Creek and conflict with the future development of Oakdale West under SSD7348;
- The alignment of the existing electricity easement, which also precludes restoration works; and
- The proposed preferred alignment of the Western Sydney Freight Line (WSFL), which has been identified by Transport for NSW as requiring a 60m easement along the northern boundary of Oakdale West.

Goodman may choose to establish the remainder of the former biodiversity offsetting area as a Biodiversity Stewardship Site under agreement with the Biodiversity Conservation Trust (BCT). In the interim this area will continue to be protected by way of the following:

- Removal of cattle, replacement of redundant fencing and installation of new fencing
- Habitat placement (large woody debris), which is provisioned for in civil contracts for the development and detailed in the Flora and Fauna Management subplan to the Construction Environmental Management Plan (CEMP)
- Targeted weed control of scheduled weeds in accordance with the Biosecurity Act 2015 and as listed in the Greater Sydney Regional Strategic Weed Management Plan 2017-2022

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## Glossary / Abbreviations

Abbreviations	Expanded text
BAR	Biodiversity Assessment Report
BC Act	NSW Biodiversity Conservation Act 2016
BC Reg.	NSW Biodiversity Conservation (Savings and Transitional) Regulation 2017
BCT	NSW Biodiversity Conservation Trust
BOS	Biodiversity Offset Strategy
CEEC	Critically Endangered Ecological Community
CEMP	Construction Environmental Management Plan
DoEE	Australian Department of Environment and Energy
DOI	NSW Department of Industry
EEC	Endangered Ecological Community
EIS	Environmental Impact Statement
EPA	Environment Protection Authority
EPBC Act	Environmental Protection and Biodiversity Conservation Act 1999
FM Act	Fisheries Management Act 1994
MNES	Matters of National Environmental Significance
OEH	NSW Office of Environment and Heritage
PCT	Plant community type
RTS	Response to Submissions
SSD	State Significant Development
TSC Act	NSW Threatened Species Conservation Act 1995
VMP	Vegetation Management Plan
WM Act	NSW Water Management Act 2000
WNSLR	Western North South Link Road

# 1. Introduction

## 1.1 Overview

Oakdale West Industrial Estate (Oakdale West) is a State Significant Development (SSD7348) being developed by Goodman Property Services (Goodman).

Oakdale West is a staged development for a warehousing and distribution hub, which includes estate-wide earthworks, infrastructure and services and the construction of the Western North South Link Road (WNSLR).

The SSD7348 application was supported by the following documentation in response to SEARs and subsequent stakeholder submissions:

- Environmental Impact Statement (EIS) (Urbis, November 2017)
- Response to Submissions (RTS) (Urbis, May 2018)
- Supplementary RTS (Urbis, October 2018)
- Biodiversity Assessment Report (BAR) (Cumberland Ecology 2017 and écologique 2018)
- Biodiversity Offset Strategy (Cumberland Ecology 2017 and écologique 2018)

Consent for SSD7348 approves the removal of approximately 4.41 hectares (ha) of remnant native vegetation, subject to the following consent conditions:

- D90. Within 12 months of the date of this development consent, or as otherwise agreed with the Planning Secretary, the Applicant must retire 172 ecosystem credits to offset the removal of 4.41 hectares of native vegetation on the Site.
- D91. The Applicant shall establish a Biodiversity Offset Area on the Site, consistent with the area described in the RTS, in accordance with a Biodiversity Stewardship Agreement with the Biodiversity Conservation Trust.

The Biodiversity Offset Strategy (BOS) specified how Goodman would meet the above consent conditions. However, during the time since the SSD7348 was lodged and assessed, the *Threatened Species Conservation Act 1995* (TSC Act) was replaced by the *Biodiversity Conservation Act 2016* (BC Act).

Investigations and assessment required to prepare both the Oakdale West BAR and BOS used the former TSC Act biodiversity assessment methods.

Transitional arrangements provisioned for under the *Biodiversity Conservation (Savings and Transitional) Regulation 2017* (BC Reg.) expired in February 2018. This has resulted in the redundancy of the BOS, which was approved under SSD7348.

This Vegetation Management Plan (VMP) has been prepared to support a development modification (MOD 1) for Oakdale West. Relevant to the site's biodiversity, the intent of MOD 1 is as follows:

- To overcome the redundancy of the BOS while avoiding lengthy delays associated with reassessment under new legislation
- Meet the objectives of the *Water Management Act 2000* (WM Act) through the rehabilitation and restoration of a riparian corridor along Ropes Creek, which would otherwise have been restored as part of the proposed Biodiversity Offset Area.

## 1.2 Consultation

### 1.2.1 Department of Planning and Environment

The neighbouring Oakdale South Estate (Oakdale South SSD6917) recently lodged a modification MOD 11) for the same reasons as the Oakdale West SSD7348 MOD 1.

In preparing the Oakdale South SSD6917 MOD 11, consultation was undertaken with the Department of Planning and Environment (the Department) and that the same issue would occur for Oakdale West SSD7348 was also discussed.

In response the Department consulted with Office of Environment and Heritage (OEH) on the matter, and issued the following suggestions which applied to both Oakdale South SSD6917 and Oakdale West SSD7348:

- Purchase of appropriate BBAM credits from the market (i.e. credits assessed and calculated under repealed legislation) available on the market assessed under the repealed legislation), or
- Obtain a statement of reasonable equivalence to convert the existing BBAM credit obligation into BAM credits (i.e. credits assessed and calculated under the BC Act) and,
  - Enter into a biodiversity stewardship agreement under the BC Act on a parcel of land to generate the relevant credit types, then retire the relevant credits, or
  - Pay an amount equivalent to those credits into the Biodiversity Conservation Trust (BCT).

Oakdale South SSD6917 has obtained a statement of reasonable equivalence from the OEH and will be fulfilling its offsetting requirements through a combination of purchasing and retiring ecosystem credits from the market and direct payment to the BCT.

Oakdale West SSD7348 intend on taking the same approach and propose also to restore/rehabilitate and maintain areas of the Ropes Creek riparian corridor to fulfil the objects of the WM Act.

### 1.2.2 Department of Industry

The Department of Industry (DOI) was consulted during the assessment of SSD7348, specifically in relation to the proposed Biodiversity Offsetting Strategy encompassing the Ropes Creek riparian zone and meeting the objects of the WM Act.

The RTS and supplementary RTS for Oakdale West SSD7348 provided a number of diagrams in response to DOI's submissions, which illustrated the areas of the proposed development's footprint that encroached onto waterfront land.

The masterplan footprint for Oakdale West SSD7348 has been amended since the issue of the RTS and supplementary RTS. As a result the areas of the development that encroach onto waterfront land have also been amended and are illustrated in Figure 1-1 of this VMP.

## 1.3 Land to which this VMP applies

This VMP applies to an area of approximately 4.2 ha which extends along the western side of Ropes Creek as shown in Figure 1-2.

The areas of the Ropes Creek corridor are considered commensurate with the proportion of the SSD7348 development footprint that has encroached onto waterfront land.

Site constraints that have been considered in determining the extent of the VMP proposed are shown on Figure 1-1 and outlined below:

- The alignment of the future Southern Link Road (SLR) which traverses the Ropes Creek riparian corridor;
- Feasible management boundaries and access constraints, given that Oakdale South's boundaries extend to the western side of Ropes Creek and conflict with the future development of Oakdale West under SSD7348;

- The alignment of the existing electricity easement, which also precludes restoration works; and
- The proposed preferred alignment of the Western Sydney Freight Line (WSFL), which has been identified by Transport for NSW as requiring a 60m easement along the northern boundary of Oakdale West<sup>1</sup>.

The remainder of the biodiversity offsetting area identified in the redundant BOS will continue to be protected by way of the following:

- Removal of cattle, replacement of redundant fencing and installation of new fencing
- Habitat placement (large woody debris), which is provisioned for in civil contracts for the development and detailed in the Flora and Fauna Management subplan to the Construction Environmental Management Plan (CEMP)
- Targeted weed control of scheduled weeds in accordance with the Biosecurity Act 2015 and as listed in the Greater Sydney Regional Strategic Weed Management Plan 2017-2022

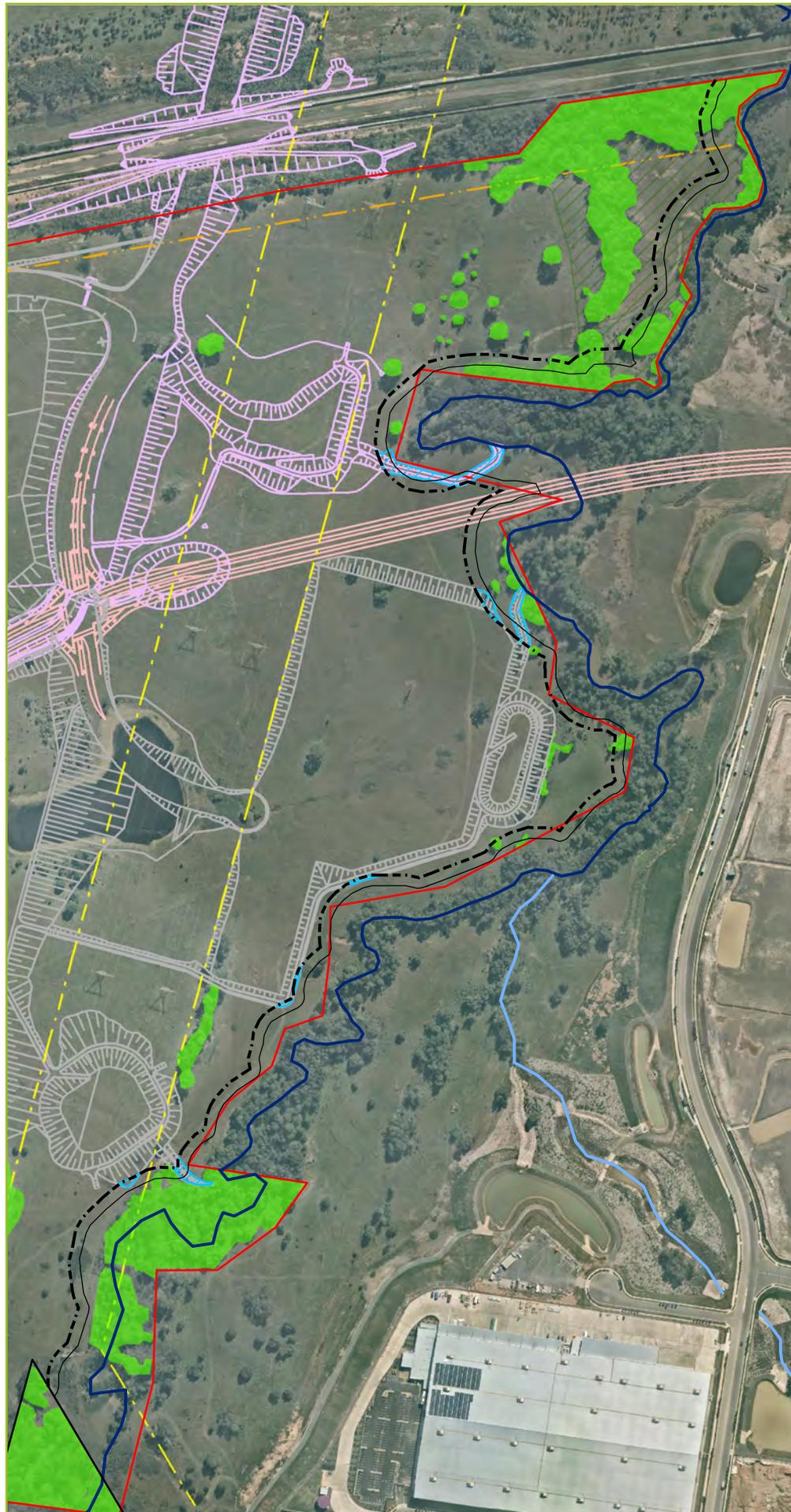
Goodman may choose to establish this area in the future as a Biodiversity Stewardship Site under agreement with the Biodiversity Conservation Trust (BCT).

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<sup>1</sup> Should the WSFL eventually be constructed at this location, the impacts to the remnant native vegetation that would result will become the responsibility of TfNSW. For the purpose of SSD7348 MOD 1, the proposed development will not impact on this area.

# Oakdale West Estate

## Vegetation Management Plan



### RIPARIAN GUIDELINES

- Ropes Creek 3rd order
- Tributary 1st order
- 40m - waterfront land
- 30m - riparian buffer
- Waterfront land encroachment

### OAKDALE WEST

- Oakdale West boundary
- Native vegetation to be retained
- Fenced conservation area
- Oakdale West siteworks
- WNSLR siteworks

### SITE CONSTRAINTS

- Electricity easement
- Future WSFL
- Future Southern Link Road

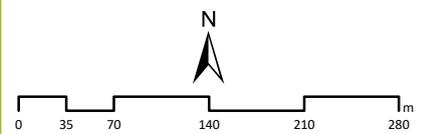
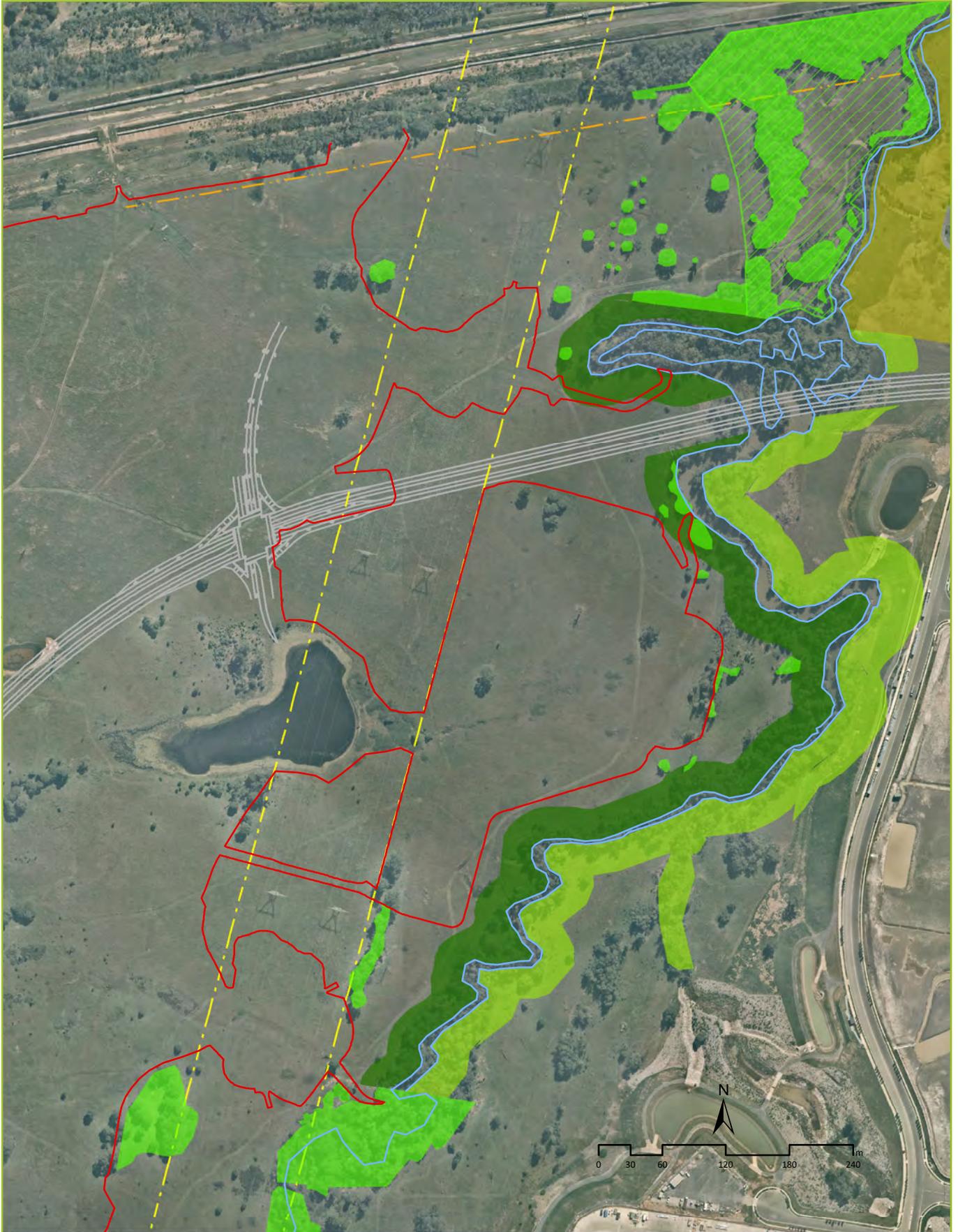


Figure 1-1  
Site constraints

*Coordinate System: MGA Zone 56 (GDA 94)  
Image sources: Nearmap 7 April 2019*



- |   |                                   |   |                           |
|---|-----------------------------------|---|---------------------------|
|  | Oakdale West VMP extent           |  | Extent of works           |
|  | Oakdale South VMP extent          |  | Ropes Creek               |
|  | Native vegetation to be retained  |  | Electricity easement      |
|  | Oakdale Central biodiversity area |  | Future WSFL               |
|  | Fenced conservation area          |  | Future Southern Link Road |

Oakdale West Estate VMP

Figure 1-2 Proposed VMP extent

Coordinate System: MGA Zone 56 (GDA 94)  
Image sources: Nearmap 7 April 2019

## 2. Site Description

### 2.1 Ropes Creek riparian corridor

As can be seen from Figure 1-1, the Ropes Creek riparian corridor broadly defines the eastern boundary of Oakdale West although much of the creek itself lies within the neighbouring Oakdale South Estate

Ropes Creek is a 3rd order Strahler stream order watercourse, as mapped on the NSW Hydro Line dataset<sup>2</sup>. As such, this watercourse generally needs to be retained with a 30m vegetated riparian zone to each side of the channel.

A 30m riparian zone will be restored from the top of the western bank of Ropes Creek as part of the Oakdale West SSD7348 development. A corresponding 30m riparian zone will be restored from the top of the eastern bank of Ropes Creek as part of the Oakdale South SSD6917 development.

The Oakdale West SSD7348 development footprint encroaches marginally onto waterfront at five separate areas (see Figure 1-1), which in total amounts to 485m<sup>2</sup>.

The outlets from three bioretention basins are located within the riparian corridor (see Figure 1-1), which are permitted, so long as they create minimal harm, and as they relate to meeting the objectives of the WM Act and the DOI's guidelines for controlled activities on waterfront land.

### 2.2 Native Vegetation

#### 2.2.1 Plant Community Types

The Ropes Creek riparian corridor is subject to a significant level of remnant riparian vegetation. Investigations and assessment under the former biodiversity assessment method (BAM) identified two plant community types (PCTs) within the corridor, as summarised in Table 2-1.

Table 2-1. PCTs identified within the Ropes Creek riparian corridor

ID	PCT common name	Status	
		BC Act	EPBC Act
PCT 835	Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin	Endangered	Not listed
PCT 1232	Swamp Oak floodplain forest fringing estuaries, Sydney Basin Bioregion and South East Corner Bioregion	Endangered	Endangered

Since investigations and collection of floristic data were undertaken to support the SSD7348 development application, a major upgrade to the NSW Vegetation Information System (VIS) took effect for the Sydney Metropolitan region.

Appropriate to the Ropes Creek riparian corridor is the inclusion of "Swamp Oak open forest on riverflats of the Cumberland Plain and Hunter valley" (PCT 1800) which is a more appropriate PCT than PCT 1232.

<sup>2</sup> The Water Management (General) Regulation 2018 hydro line spatial data is a dataset of mapped watercourses and waterbodies in NSW. Based on the Spatial Services (Department of Finance, Services & Innovation) the data set is used to determine the Strahler stream order of a stream to identify whether an exemption from the requirement for a water licence or approval under the Water Management (General) Regulation 2018 applies.

The allocation of PCTs is only necessary for the assessment of native vegetation removal and calculation of ecosystem credits that are required to offset impacts to native vegetation. For the purpose of this VMP the appropriateness of PCT allocation is provided to justify the assemblage of vegetation communities and associated constituent plant species) proposed for restoration purposes.

A further consideration is the dominance of *Casuarina glauca* (swamp oak), which is regenerating through widespread suckering and resultant monospecific gene pool. The aim of this VMP is to ensure that a diverse range of endemic riparian flora is reinstated, which includes genetic diversity.

### 2.2.1 Flora species

Native flora species observed within the riparian corridor consists of a canopy dominated by swamp oak and *Melaleuca styphelioides* (prickly-leaf paperbark) with less frequently occurring *Eucalyptus tereticornis* (river redgum), *E. moluccana* (grey gum) and *Angophora floribunda* (rough barked apple gum).

Regenerating *Bursaria spinosa* (native blackthorn) is the most dominant species in the shrub layer species with various acacia species also present (*Acacia implexa*, *A. decurrens*, *A. floribunda* and *A. parramattensis*).

Native ground layer plant species are scattered throughout the riparian corridor including patches of native grasses such as *Microleana stipoides* (weeping meadow grass) and other herbs (such as *Dichondra repens*, *Pratia purpurascens*, *Brunoniella australis*).

Given the extent of remnant vegetation within the corridor, a medium to high level of natural resilience is expected.

## 2.3 Introduced Vegetation

Sections of Ropes Creek are infested with *Juncus acutus* (spiny rush) within the channel and lower creek banks. *Alternanthera philoxeroides* (alligator weed) is known to occur upstream of the VMP subject area but has yet to be identified within downstream reaches.

Higher elevated creek banks and the riparian corridor support moderate populations of grazed exotic grasses with scattered patches of *Rubus fruticosus* (blackberry) and individuals of *Lycium ferocissimum* (African boxthorn), *Dovyalis caffra* (kei apple) and *Cestrum parqui* (green cestrum). Most of which are identified as priority weed species in the Greater Sydney Regional Strategic Weed Management Plan 2017-2022 (refer Section 3.4.1).

## 3. Restoration Approach

### 3.1 Overview

The specific objectives of this VMP align with those prescribed in the NSW Guidelines for vegetation management plans on waterfront land (DPIW July 2012) (the guidelines). The main objective being to provide a stable watercourse and riparian corridor which will emulate local native vegetation communities. Specific issues that need to be addressed within this VMP include:

- Conserve and protect environmentally sensitive areas and biodiversity values;
- Restore and rehabilitate degraded bushland and areas of significant vegetation;
- Ensure the protection of threatened species, populations or ecological communities;
- Limit the impact of development upon existing native vegetation;
- Provide habitat connectivity and fauna corridors;
- Promote sustainable vegetation management;
- Undertake responsive site management and landscaping to ensure that bushland values are conserved; and
- Specify appropriate environmental protection works to enhance the ecological and bushland amenity value of the site.

A combination of assisted bushland regeneration and reconstruction through revegetation shall be undertaken in areas of remnant native vegetation and pasture land within the VMP riparian zones (respectively).

### 3.2 Assisted Bushland Rehabilitation

Assisted bushland regeneration works shall be implemented in areas where natural regeneration is likely, by removing obstacles and making amendments to abiotic conditions to effect the regeneration of remnant native vegetation with varying resilience levels.

The aim of assisted bushland regeneration is to create conditions that favour the ecosystem's own recovery processes. The following principles from OEH's Conservation Management Notes (OEH 2011) apply to this VMP:

- Working where the natives are stronger, i.e. looking after the good areas and creating the conditions that promote their expansion into adjoining more degraded areas. An exception to this approach in the VMP riparian corridors will be targeting priority weed species in accordance with the *Biosecurity Act 2015*;
- Avoiding excessive disturbance because it often favours weed regrowth. But employing some disturbance where it is needed to trigger native plant regeneration or to treat compacted soil;
- Avoiding mulching (mostly) because mulch suppresses germination of seedlings, although it should be used in the following circumstances:
  - Small, low resilience patches within the regeneration area where natural leaf litter is available from nearby sources, and
  - On the edges of bushland areas to define the limits of the regeneration zone, and to suppress the encroachment of exotic grasses.
  - Above all, mulching shall avoid burying resilient areas where natural recruitment from the soil seed bank is evident.

Management activities relating to the assisted bushland regeneration are detailed in Section 4.

### 3.3 Reconstruction through revegetation

Where areas are found to have a low capacity for natural regeneration (i.e. former pasture land), these shall be fully reconstructed through revegetation of canopy, shrub and ground layer plant species constituent of River-flat Eucalypt Forest communities (RFEF). Reconstruction activities generally entail the following:

- Spraying out of introduced pasture grasses, herbs and forbs using a combination of selective and non-selective herbicides and high volume and low volume applications;
- Planting of local RFEF tree, shrub and groundlayer species; and
- Jute matting or mulching, depending on the location.

Section 4 details management activities relating to the reconstruction through revegetation.

### 3.4 Threatening processes

The most significant threatening processes that contribute or have contributed to degradation of the site's riparian corridors include:

- Past clearing of native vegetation;
- Grazing;
- Weed infestations, and
- Disturbance of soil and soil-stored native seed from various works associated with past land uses and proposed development.

The site's boundary will be securely fenced and grazing cattle removed. The existing natural riparian corridors will be demarcated as 'no go' zones and silt fencing installed to prevent movement of sediments in runoff entering these zones, during construction.

#### 3.4.1 Weed infestations

Weed infestations will be managed as outlined in this VMP and in accordance with the *Biosecurity Act 2015*. The *Biosecurity Act 2015* replaces the *Noxious Weeds Act 1993*, which was repealed in August 2017.

The *Biosecurity Act 2015* itself is tenure neutral, in that unlike the previous *Noxious Weeds Act 1993* there is no scheduled "list" of weeds. As such all weeds need to be categorised by a risk they pose in relation to human health, biodiversity or agricultural production. The General Biosecurity Duty (GBD) is a key feature of the *Biosecurity Act 2015* (S22). Simply put, it means that all private and public land managers (or anyone who deals with weeds) must prevent, eliminate or minimise the risk of those weeds present.

The Greater Sydney Regional Strategic Weed Management Plan 2017-2022 identifies both State level and regionally determined priority weeds and high-risk activities that are relevant to the Oakdale West are listed in Appendix 1.

## 4. Management Actions

### 4.1 Management Zones

The VMP applies to two management zones: (a) assisted bushland regeneration, and (b) reconstruction through revegetation.

Work activities specific to these management zones are summarised in Table 4-1 and detailed in the following Sections with relevant work areas shown in Figure 4-1.

### 4.2 Weed Control

#### 4.2.1 Primary weeding

Primary weeding is the first stage of bushland regeneration and reconstruction, which will require a range of techniques such as: the selective spraying of weeds with herbicides; cutting/scraping and painting deep rooted woody weeds and climbers with hand tools, chainsaws and brushcutters and painting cut stumps with herbicide; and selective hand removal of weeds.

Primary weeding is required in all VMP zones with a priority given to:

- Species scheduled under the *Biosecurity Act 2015* (see Table A, Appendix A);
- Widespread growth of spiny rush; and
- Woody weeds and climbers.

Additionally:

- Herbicide should not be allowed to fall into a watercourse or when wind conditions could cause drift outside the area to be treated or onto desirable plants.
- Weeds that cannot be removed by hand are to be manually removed, ensuring that the entire weed including all roots is removed;
- Damage to native plant species should be avoided during any weeding works; and
- All seed, flowering and invasive vegetative parts of weeds should be bagged and disposed of appropriately off site.

#### 4.2.2 Secondary weeding

Secondary weeding involves the selective removal or treatment of weeds, whilst allowing regenerating or planted native plants to increase in size, abundance and percentage cover.

Secondary weeding should be undertaken at intervals of not more than four weeks following the completion of primary weeding and continue throughout the plant establishment period in reconstruction areas and as an ongoing task in assisted bush regeneration areas.

All herbaceous weeds should be managed to be at very-low percentage cover levels, (as a minimum 5% cover), or better. Particularly problematic herbaceous weeds with wind-blown seeds should be prevented from seeding at all times throughout the site.

#### 4.2.3 Maintenance weeding

It can be expected that the remnant and revegetated areas in each VMP zone will always require a certain level of maintenance weeding, as weed seeds and vegetative propagules make their way on site from the soil stored seedbank, via water, wind and bird droppings. However, it can be expected that the amount of weeding required will decrease once the regenerating native plants grow, recover and become more resistant to disturbance and weed colonisation.

Maintenance weeding shall extend for a minimum of three years following the completion of the Plant Establishment / Defects Liability Period (refer Section 4.5.4) or until such time as a minimum

80% survival rate for all plantings and a maximum five percent (5%) weed cover for each VMP management zone.

### 4.3 Soil amelioration

In areas not subject to construction disturbance it is anticipated that existing soils will be suitable for revegetation following weed control without the need for amelioration.

Where construction activities have disturbed site soils (e.g. compaction, loss of topsoil) the following shall apply:

- All debris, stones and left over building materials (arising from the works) are to be removed from site.
- Stones exceeding 25 mm, clods of earth exceeding 50 mm, and weeds, rubbish or other deleterious material brought to the surface during excavation or cultivation, must be removed.
- Supply and cultivate/spread 50mm layer of organic compost within 50mm layer of topsoil.
- Organic compost to be pH neutral; low in phosphorus suitable for planting Australian natives; free from clods of soil, rock, rubbish, and other non-organic matter.

### 4.4 Mulching

The higher elevated parts of VMP reconstruction zones are to be mulched with a minimum 100mm layer of mulch to assist with weed suppression, improve soil water conservation and soil erosion control.

Mulch is to be placed to the required depth, clear of plant stems, and raked to an even surface flush with the surrounding finished levels. Mulch is to be spread so that after settling it is:

- Smooth and evenly graded between design surface levels
- Flush with adjacent finished levels
- Of the required depths (100 mm depth)
- Sloped towards the base of plant stems, but not in contact with the stem

## 4.5 Planting program

### 4.5.1 Plant procurement

Plant procurement involves the sourcing of plant species that are consistent with those provided in the Planting Schedule (provided in Appendix B).

Plant procurement shall either be undertaken by Goodman or the Contractor (to be determined on engagement of Contractor).

Most commercial nurseries that supply plant stock to the Western Sydney Region have the capacity to provide suitable seed or other propagative materials without the need for targeted collection of seed/ propagation materials. However at least four to six months advance notice will be required to ensure that the species listed the Planting Schedule (provided in Appendix B) are able to be supplied at the intended commencement of planting.

Plant stock is to be inspected by the Contractor and Site Superintendent (or otherwise appointed Goodman representative) at least one month prior to commencement of planting works and on delivery to the site.

Plants that are not: true to species; vigorous and healthy; with a well-developed root system; free from disease / pests; and are not without scars or dead wood; are to be rejected at delivery.

Planting shall be undertaken immediately after acceptance of plant delivery. If this is not possible: appropriate storage to keep the plants in good condition on the site, adequately protected from frost, wind, sun and vermin, and secured from vandals; shall be facilitated.

#### 4.5.2 Planting procedure

Planting shall generally entail the following:

- Dig hole sufficient for root ball of plant. The removal from the container and the positioning of the plant is to be done with minimum disturbance to the roots.
- Slow-release native plant fertiliser (low phosphorous formulated native plant fertiliser tablet/granules) and water saving crystals shall be placed into the planting hole.
- After planting, the soil shall be replaced and carefully firmed, leaving a slight depression around each plant to allow for water collection. Soil is to be replaced in the hole so that the base of the stem is level with the soil surface, not set below the soil, or sitting above.
- All plants should be watered-in thoroughly after planting to settle any air pockets around the root ball of the plant and to give the plant a good initial supply of water.

#### 4.5.3 Practical completion

It is anticipated that Practical Completion can be achieved within six months from commencement of the bush regeneration/restoration works in each VMP zone. During this time planting establishment is to be achieved through watering, weeding, pest/disease control, replacing dead plant material and repairing/replacing erosion control matting/mulch. All plants should be watered thoroughly on at least 4 to 6 occasions, during this period.

Failure to maintain each VMP management zone in a stable and healthy condition may result in the Superintendent arranging for the maintenance work to be carried out by others at the expense of the Contractor.

Practical Completion shall require a minimum 80 per cent survival rate of each species planted and a maximum of:

- 5 per cent weed cover in restoration zones
- 10 percent weed cover in rehabilitation zones

#### 4.5.4 Planting establishment /defects liability

The Plant Establishment / Defects Liability Period shall be in force for 18 months after Practical Completion of each stage of the works or until the site is stable, whichever is the longer period.

Any defective work, whether the result of poor workmanship, use of defective materials, damage through carelessness, or of any other cause, shall be removed and replaced at the Contractor's expense by work or materials of the required standard.

### 4.6 Performance measures

Performance targets are necessary to objectively measure the progress and the achievement of the VMP objectives. The anticipated timing of VMP management activities and related performance measures are outlined below and in Table 4-1.

- 1) All environmental and priority weeds are to be continuously suppressed and, if possible, eradicated from the site using recognised appropriate bush regeneration methods in accordance with best practice.
- 2) Weed control and revegetation works are to be carried out by a qualified bushland regeneration contractor for a period of 5 years.
- 3) Regeneration/restoration specified vegetation communities with a minimum 80% cover of native species achieved.
- 4) Weed control targets should eventually progress down to between 5% - 10% (or less) at the end of year 5.

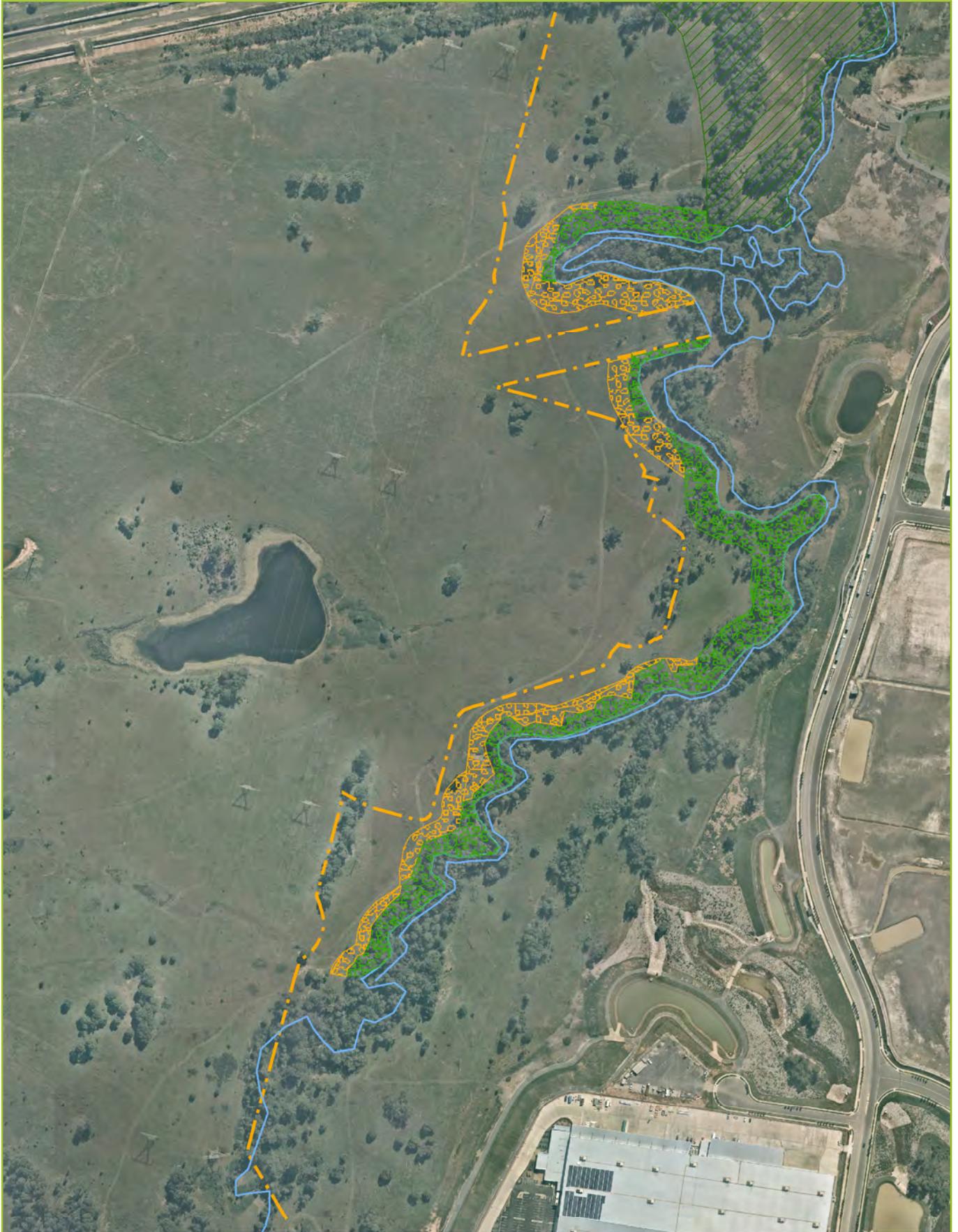
Table 4-1. VMP implementation schedule

Task	Timing	Performance measure
Plant procurement	Minimum 4-6mths pre-commencement of VMP implementation	Plants that are not: true to species; vigorous and healthy; with a well-developed root system; free from disease / pests; and are not without scars or dead wood; shall be rejected at delivery.
Completion of revegetation planting works	Practical Completion	<ul style="list-style-type: none"> <li>• 100% of management zones treated</li> <li>• 100% of plants installed</li> </ul>
Plant establishment	6 months	<ul style="list-style-type: none"> <li>• Minimum 90% per cent survival rate of each species planted in all zones</li> <li>• Maximum 10% weed cover in reconstruction zones</li> <li>• Maximum 20% weed cover in regeneration zones</li> </ul>
Defects Liability Period	18 months	<ul style="list-style-type: none"> <li>• Minimum 80% per cent survival rate of each species planted in all zones</li> <li>• Maximum 10% weed cover in reconstruction zones</li> <li>• Maximum 20% weed cover in regeneration zones</li> </ul>
Maintenance Period	36 months	<ul style="list-style-type: none"> <li>• Minimum 80% per cent survival rate of each species planted in all zones</li> <li>• Maximum 5% weed cover in reconstruction zones</li> <li>• Maximum 10% weed cover in regeneration zones</li> </ul>

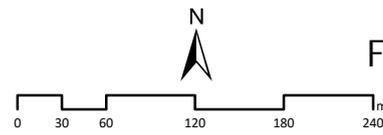
## 4.7 Compliance certification

Site audits, monitoring and reporting on the progress and achievement of the VMP performance targets shall be undertaken by the Site Superintendent or other representative nominated by Goodman. In general, reporting and compliance certificates shall be issued for the following items:

- Completion of primary weed control works
- Completion of secondary weed control works
- Inspection of plant materials delivered to site prior to commencement of planting works
- Completion of revegetation planting works (Practical Completion)
- Completion of plant establishment period
- Defects Liability Period
- Satisfactory achievement of revegetation/restoration works as per VMP performance targets (Section 4.6).



-  Regeneration
-  Revegetation
-  Fenced conservation area
-  Ropes Creek
-  Former\_BOS\_extent



Oakdale West Estate VMP  
Figure 4-1 Proposed VMP extent

*Coordinate System: MGA Zone 56 (GDA 94)  
Image sources: Nearmap 7 April 2019*

## 5. References

Cumberland Ecology (2017) Oakdale West State Significant Development Application Biodiversity Assessment Report, prepared for Goodman Property Services (Aust.) Pty Ltd, March 2017.

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## Appendix A. Weeds of the riparian zone

Species / Common names	Management measures
<b>Shrubs</b>	
<i>Cestrum parqui</i> Green cestrum	<p><b>Schedule 2: Regional Priority Weed</b></p> <p><b>Regional Priority Weed Objective - ASSET PROTECTION:</b></p> <p>Land managers mitigate the risk of the plant being introduced to land used for grazing of livestock.</p> <p>Land managers prevent spread from their land where feasible.</p> <p>The plant or parts of the plant are not traded, carried, grown or released into the environment.</p> <p>The plant should be fully and continuously suppressed and destroyed on grazing land</p> <p>Implement quarantine and/or hygiene protocols</p> <p><b>Schedule 3: Local Priority Weed</b></p> <p>Land managers have mitigated the risk of the plant being introduced to land used for grazing of livestock</p> <p>The plant should be fully suppressed and destroyed on grazing land.</p>
<i>Dovyalis caffra</i> Kei apple	<p><b>Schedule 2: Regional Priority Weed</b></p> <p><b>Regional Priority Weed Objective - ERADICATION</b></p> <p>The plant is eradicated from the land and the land is kept free of the plant.</p> <p>Destruction of all infestations where feasible.</p> <p>Manage in accordance with New Weed Incurison Plan.</p> <p>Detailed surveillence and mapping to locate all infestations</p> <p>Local Control Authority is notified if the plant is found on the land.</p> <p>The plant or parts of the plant are not traded, carried, grown or released into the environment.</p>
<i>Lantana camara</i> Lantana	<p><b>Schedule 1: State Priority Weed</b></p> <p><b>State Priority Weed Objective - ASSET PROTECTION (Whole of State):</b></p> <p>Mandatory Measure (Division 8, Clause33, Biosecurity Regulation 2017): A person must not move, import into the State or sell.</p> <p><b>Regional Strategic Response:</b> Identify priority assets for targeted management.</p>
<i>Lycium ferocissimum</i> African boxthorn	<p><b>Schedule 1: State Priority Weed</b></p> <p><b>State Priority Weed Objective - ASSET PROTECTION (Whole of State):</b></p> <p>Mandatory Measure (Division 8, Clause33, Biosecurity Regulation 2017): A person must not move, import into the State or sell.</p> <p><b>Regional Strategic Response:</b> Identify priority assets for targeted management.</p>

Species / Common names	Management measures
<p><i>Olea europaea</i> subsp. <i>cuspidata</i> African olive</p>	<p><b>Schedule 2: Regional Priority Weed</b></p> <p><b>Regional Priority Weeds Objective - CONTAINMENT:</b></p> <p>Oakdale West lies within the region classified as the core infestation area. The following applies:</p> <p>The plant or parts of the plant are not traded, carried, grown or released into the environment.</p> <p>Implement quarantine and/or hygiene protocols.</p> <p>Surveillance and mapping to locate all infested properties.</p> <p>Monitor change in current distribution to ensure containment of spread.</p> <p>Land managers prevent spread from their land where feasible.</p> <p>Land managers reduce the impact on priority assets.</p> <p>Identify priority assets for targeted management</p>
<p><i>Rubus fruticosus</i> agg Blackberry</p>	<p><b>Schedule 1: State Priority Weed</b></p> <p><b>State Priority Weed Objective - ASSET PROTECTION (Whole of State):</b></p> <p>Mandatory Measure (Division 8, Clause33, Biosecurity Regulation 2017): A person must not move, import into the State or sell.</p> <p><b>Regional Strategic Response:</b> Identify priority assets for targeted management.</p>
<p><i>Ulex europaeus</i> Gorse</p>	<p><b>Schedule 1: State Priority Weed</b></p> <p><b>State Priority Weed Objective - ASSET PROTECTION (Whole of State):</b></p> <p>Mandatory Measure (Division 8, Clause33, Biosecurity Regulation 2017): A person must not move, import into the State or sell.</p> <p><b>Schedule 2: Regional Priority Weed</b></p> <p><b>Regional Priority Weeds Objective - CONTAINMENT:</b></p> <p>Land managers prevent spread from their land where feasible</p> <p>Destruction of all infestations, aiming at local eradication where feasible.</p> <p>Detailed surveillance and mapping to locate all infestations.</p> <p>Implement quarantine and/or hygiene protocols.</p> <p>Monitor progress towards eradication</p>
<p><b>Aquatic and semi-aquatic</b></p>	
<p><i>Alternanthera philoxeroides</i> Alligator weed - Weed of National Significance</p>	<p><b>Schedule 1: State Priority Weeds</b></p> <p><b>State Priority Weed Objective - CONTAINMENT:</b></p> <p>Mandatory Measure (Division 8, Clause 33, Biosecurity Regulation 2017): A person must not move, import into the State or sell.</p> <p><b>Schedule 2: Regional Priority Weed</b></p> <p><b>Regional Priority Weeds Objective - CONTAINMENT:</b></p>

Species / Common names	Management measures
	<p>Oakdale West lies within the region classified as the core infestation area. The following applies:</p> <p>Prevent spread from their land where feasible.</p> <p>Mitigate the risk of the plant being introduced to their land.</p> <p>Reduce the impact on priority assets.</p> <p>Implement quarantine and/or hygiene protocols.</p> <p>Manage in accordance with the Priorities for the control of Alligator Weed in the Sydney Region.</p>
<i>Cyperus difformis</i> Dirty Dora	Other
<i>Cyperus eragrostis</i> Umbrella sedge	Other
<i>Juncus acutus</i> Spiny rush	Other
<b>Vines/scramblers</b>	
<i>Anredera cordifolia</i> Madeira vine	<p><b>Schedule 1: State Priority Weed</b></p> <p><b>State Priority Weed Objective - ASSET PROTECTION (Whole of State):</b></p> <p>Mandatory Measure (Division 8, Clause33, Biosecurity Regulation 2017): A person must not move, import into the State or sell.</p> <p><b>Regional Strategic Response:</b></p> <p>Identify priority assets for targeted management.</p>
<i>Araujia sericifera</i> Moth vine	Other
<i>Asparagus aethiopicus</i> ground asparagus † <i>A. africanus</i> climbing asparagus <i>A. asparagoides</i> bridal creeper <i>A. plumosus</i> climbing asparagus fern	<p><b>Schedule 1: State Priority Weed</b></p> <p><b>State Priority Weed Objective - ASSET PROTECTION (Whole of State):</b></p> <p>Mandatory Measure (Division 8, Clause33, Biosecurity Regulation 2017): A person must not move, import into the State or sell.</p> <p><b>Regional Strategic Response:</b> Identify priority assets for targeted management.</p> <p>†<i>A. africanus</i></p> <p>Destruction of all infestations where feasible.</p> <p>Manage in accordance with New Weed IncurSION Plan.</p> <p>▫ Detailed surveillance and mapping to locate all infestations</p>
<i>Asparagus virgatus</i> Asparagus fern	<p><b>Schedule 3: Local Priority Weed</b></p> <p>The plant or parts of the plant have not been traded, carried, grown or released into the environment.</p> <p>Surveillance and mapping to locate all infested properties and maintain currency of exclusion zone and objectives.</p>
<i>Modiola caroliniana</i> Creeper mallow	Other

Species / Common names	Management measures
<b>Grasses</b>	
<i>Axonopus fissifolius</i> Carpet grass	Other
<i>Briza subaristata</i> hilean quaking grass	Other
<i>Bromus catharticus</i> Prairie grass	Other
<i>Ehrharta erecta</i> Panic veldtgrass	Other
<i>Lolium perenne</i> Ryegrass	Other
<i>Paspalum dilatatum</i> Paspalum	Other
<i>Pennisetum clandestinum</i> Kikuyu	Other
<i>Sporobolus africanus</i> Parramatta grass	Other
<b>Herbs</b>	
<i>Anagallis arvensis</i> Scarlet pimpernel	Other
<i>Brassica fruticulosa</i> Twiggy turnip	Other
<i>Cirsium vulgare</i> Spear thistle	Other
<i>Hypochaeris radicata</i> Catsear	Other
<i>Senecio madagascariensis</i> Fireweed	<p><b>Schedule 1: State Priority Weed</b></p> <p><b>State Priority Weed Objective - ASSET PROTECTION (Whole of State):</b> Mandatory Measure (Division 8, Clause33, Biosecurity Regulation 2017): A person must not move, import into the State or sell.</p> <p><b>Regional Strategic Response:</b> Identify priority assets for targeted management.</p>
<i>Sida rhombifolia</i> Paddy's lucerne	Other
<i>Solanum americanum</i> American black nightshade	Other
<i>Solanum linnaeanum</i> Apple of Sodom	Other
<i>Sonchus oleraceus</i> Common sowthistle	Other

## Appendix B. Planting Schedule

Zone	Species	density/m <sup>2</sup>	%mix	Qty
<b>RC reconstruction (15,604m<sup>2</sup>)</b>				
<b>Trees/large shrubs</b>	Acacia decurrens	0.05	5	40
	Acacia parramattensis	0.05	5	40
	Angophora floribunda	0.05	15	115
	Eucalyptus amplifolia	0.05	15	115
	Eucalyptus eugeniodes	0.05	15	115
	Eucalyptus moluccana	0.05	15	115
	Eucalyptus tereticornis	0.05	15	115
	Melaleuca styphelioides	0.05	15	115
			<b>100</b>	<b>770</b>
<b>Smaller shrubs</b>	Acacia floribunda	0.2	8	250
	Breynia oblongifolia	0.2	10	312
	Clerodendrum tomentosum	0.2	10	312
	Daviesia genistifolia	0.2	8	250
	Daviesia ulicifolia	0.2	8	250
	Dillwynia sieberi	0.2	8	250
	Dodonaea spp.	0.2	10	312
	Goodenia ovata	0.2	10	312
	Indigofera australis	0.2	10	312
	Ozothamanthus diosmifolium	0.2	10	312
	Pultenea spp.	0.2	8	250
			<b>100</b>	<b>3,122</b>
<b>Grasses</b>	Aristida ramosa/vagans	2	5	1,560
	Cymbogon refractus	2	10	3,120
	Chloris truncata/ventricosa	2	5	1,560
	Dicanthium sericeum	2	5	1,560
	Dichelachne micrantha	2	10	3,120
	Echinopogon ovata	2	10	3,120
	Eriochloa pseudochritcha	2	5	1,560
	Imperata cylindrica	2	10	3,120
	Microlaeana stipoides	2	10	3,120
	Poa labillardieri	2	10	3,120
	Rytidosperma racemosum	2	10	3,120
	Themeda triandra	2	10	3,120
			<b>100</b>	<b>31,200</b>
<b>Sedges/Sedge-like</b>	Lomandra longifolia	1	50	7,802
	Dianella longifolia	1	50	7,802

Zone	Species	density/m <sup>2</sup>	%mix	Qty
			<b>100</b>	<b>15,604</b>
Herbs	Arthropodium spp.	0.05	as available	780
	Bulbine bulbosa	0.05		
	Clematis spp.	0.05		
	Desmodium varians	0.05		
	Dichondra repens	0.05		
	Glycine clandestina	0.05		
	Hardenbergia violacea	0.05		
	Oplismenus aemulus	0.05		
	Oxalis perannans	0.05		
	Plectranthus parviflorus	0.05		
	Pratia purpurescens	0.05		
	Scaveola albida	0.05		
	Veronca plebeia	0.05		
	Wahlenbergia gracilis	0.05		
				<b>780</b>
<b>Total plants RC reconstruction</b>				<b>51,476</b>
<b>RC Regeneration (30% of 26,071m<sup>2</sup>)</b>				
Smaller shrubs	Acacia floribunda	0.2	8	125
	Breynia oblongifolia	0.2	10	156
	Clerodendrum tomentosum	0.2	10	156
	Daviesia genistifolia	0.2	8	125
	Daviesia ulicifolia	0.2	8	125
	Dillwynia sieberi	0.2	8	125
	Dodonaea spp.	0.2	10	125
	Goodenia ovata	0.2	10	125
	Indigofera australis	0.2	10	125
	Ozothamanthus diosmifolium	0.2	10	125
	Pultenea spp.	0.2	8	156
				<b>100</b>
Grasses	Aristida ramosa/vagans	2	5	782
	Cymbogon refractus	2	10	1,564
	Chloris truncata/ventricosa	2	5	782
	Dicanthium sericeum	2	5	782
	Dichelachne micrantha	2	10	1,564
	Echinopogon ovata	2	10	1,564
	Eriochloa pseudochritcha	2	5	782
	Imperata cylindrica	2	10	1,564
	Microlaeana stipoides	2	10	1,564
	Poa labillardieri	2	10	1,564

Zone	Species	density/m <sup>2</sup>	%mix	Qty
	Rytidosperma racemosum	2	10	1,564
	Themeda triandra	2	10	1,564
			<b>100</b>	<b>15,640</b>
<b>Sedges/Sedge-like</b>	Lomandra longifolia	1	50	3,910
	Dianella longifolia	1	50	3,910
			<b>100</b>	<b>7,820</b>
<b>Herbs</b>	Arthropodium spp.	0.05	as available	391
	Bulbine bulbosa	0.05		
	Clematis spp.	0.05		
	Desmodium varians	0.05		
	Dichondra repens	0.05		
	Glycine clandestina	0.05		
	Hardenbergia violacea	0.05		
	Oplismenus aemulus	0.05		
	Oxalis perannans	0.05		
	Plectranthus parviflorus	0.05		
	Pratia purpurescens	0.05		
	Scaveola albida	0.05		
	Veronca plebeia	0.05		
Wahlenbergia gracilis	0.05			
<b>Total plants RC revegetation zone</b>				<b>25,319</b>



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# Appendix L

## Landscape Management Plan



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# Oakdale West Estate (OWE) – Public Domain & Infrastructure Landscape Management Plan

Prepared by: Scape Design Pty Ltd  
Prepared for: Goodman Property Services



SSD7348 – DA MOD 9 – Stage 1

## Revision Schedule

Revision	Date	Issued by
03	08/01/19	HW & CH
04	12/06/19	HW & CH
05	25/06/19	MF & CH
06	17/07/19	HW & CH
07	20/08/19	MF & CH
08	21/08/19	MF & CH
09	20/09/19	MF & CH
10	04/10/19	MF & CH
11	31/10/19	MF & CH
12	14/11/19	MF & CH
13	30/03/20	MF & CH
14	12/08/20	MF & CH
15	29/10/20	MF & CH
16	12/02/21	CH
17	28/02/22	CH

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## 2 CONDITIONS

### 2.1 TABLE OF CONDITIONS

Visual Amenity			
Condition No.		Condition	Action
D35. Prior to the commencement of construction of Stage 1, the Applicant must prepare a Landscape Management Plan (LMP), to the satisfaction of the Planning Secretary. The plan must form part of the CEMP in accordance with Condition D119 and the OEMP in accordance with Condition D130 and must:	(a)	<i>be prepared in consultation with Council</i>	<b>Refer to Section 3.1.4</b> for Council Consultation
	(b)	<i>detail procedures for the retention of existing native vegetation in the north-western corner of the Site and protection of this vegetation from construction impacts</i>	Refer to Oakdale West Estate - Flora and Fauna Management Plan and Erosion and Erosion and Sediment Control Plan  Refer to <b>Section 4.3.1</b> of this LMP for species specific vegetation management.
	(c)	<i>include visual impact mitigation measures for construction including but not limited to:</i>  <i>(i) the location of site sheds, compounds and machinery parking areas, avoiding the western and southern side boundaries, or other locations highly visible from adjacent residential properties.</i>  <i>(ii) procedures for progressive grassing of exposed soil, as soon as reasonably practical after disturbance, focusing on the areas where building construction will occur at a later stage</i>	(i) Refer to Construction Environmental Management Plan and <b>Section 4.3.2</b> for location of construction facilities operations.  (ii) Refer to <b>Section 4.3.2</b> of this LMP for procedures of progressive grassing techniques.
	(d)	<i>detail the works required to construct the landscape bund along the western boundary of the Site, as shown on Figure 5 in Appendix 2, including provision for the landscaping to incorporate mature tree (no less than 75 litre pot size)</i>	Refer to <b>Section 4.3.3</b> of the LMP
	(e)	<i>include a schedule of works which prioritises the construction of the landscape bund along the western boundary of the Site, as shown on Figure 5 in Appendix 2.</i>	Refer to <b>Section 4.3.3</b> of the LMP

	(f)	<i>include a program for implementing the landscape bund as soon as reasonably practicable and no later than prior to operation of Stage 1.</i>	Refer to <b>Section 4.3.3</b> of this LMP
	(g)	<i>describe the integration of landscaping with fixed elements, including retaining walls and noise walls</i>	Refer to <b>Section 4.3.3</b> of this LMP
	(h)	<i>describe the monitoring and maintenance procedures to ensure the success of the landscaping work over the life of the Development.</i>	Refer to <b>Section 5</b> of this LMP
	(i)	<i>update the LMP to include modifications to the western bund, bio-retention basin 2/3 and the noise wall approved under MOD 3.</i>	Refer to <b>Section 4.3.3</b> of this LMP
<b>D36. The applicant must:</b>	(a)	<i>not commence construction of Stage 1 until the LMP is approved by the Planning Secretary</i>	N/A
	(b)	<i>must implement the most recent version of the LMP approved by the Planning Secretary</i>	Noted
	(c)	<i>Include the monitoring and maintenance procedures contained in the LMP within the OEMP required in accordance with Condition D130</i>	N/A
<b>Landscaping</b>			
<b>D37. The Applicant must complete the landscape bund along the western boundary of the Site as shown on Figure 5 in Appendix 2 within six months of commencing any construction including bulk earthworks.</b>	-	-	Refer to <b>Section 4.3.3</b> of this LMP

<p><i>D38. The Applicant must maintain all landscaping implemented as part of Stage 1, as shown on Figure 5 in Appendix 2, for the duration of the Development. If the monitoring carried out as part of Condition D35 indicates that any aspect of the landscaping has not been successful, the Applicant must undertake re-planting and rehabilitation works, as soon as reasonably practicable.</i></p>			<p>Refer to <b>Section 5</b> of this LMP for maintenance requirements.</p> <p>Refer to <b>Section 5.3.1</b> of this LMP for requirements of unsuccessful planting</p>
<b>Management Plan Requirements</b>			
<p><i>D118. Management plans required under this must be prepared in accordance with relevant guidelines, and include:</i></p>	(a)	<p><i>details of:</i></p> <ul style="list-style-type: none"> <li><i>(i) the relevant statutory requirements (including any relevant approval, license or lease conditions)</i></li> <li><i>(ii) any relevant limits or performance measures and criteria</i></li> <li><i>(iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, Stage 1 or any management measures</i></li> </ul>	<p><i>(i, ii)</i> In relation to landscape softworks, the following Australian Standards are applicable and have guided all landscape works: <b>AS 4419-1998</b> Soils for landscaping and garden use, <b>AS 4970-2009</b> Protection of existing trees on development sites (where not covered by council requirements) and <b>AS 2303-2015</b> Tree stock for landscape use.</p> <p><i>(iii)</i> Refer to this LMP for more information.</p>
	(b)	<p><i>a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria</i></p>	<p>All landscape works have been designed using relevant Australian Standards as a guiding point. Refer to this LMP for more information.</p>
	(c)	<p><i>a program to monitor and report on the:</i></p> <ul style="list-style-type: none"> <li><i>(i) impacts and environmental performance of Stage 1</i></li> <li><i>(ii) effectiveness of the management measures set</i></li> </ul>	<p><i>(i)</i> Refer to <b>Section 6</b> of this LMP for maintenance and monitoring schedule</p> <p><i>(ii)</i> Refer to <b>Section 6</b> of this LMP for maintenance and monitoring schedule</p>

		<i>out pursuant to paragraph (b) above</i>	
	(d)	<i>a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible</i>	Refer to <b>Section 6.5 of this LMP</b> for the contingency management plan
	(e)	<i>a program to investigate and implement ways to improve the environmental performance of Stage 1 over time</i>	Refer to <b>Section 5.3 and Section 6 of this LMP</b> for maintenance and monitoring requirements and schedules
	(f)	<i>a protocol for managing and reporting any:</i> <ul style="list-style-type: none"> <li><i>(i) incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria)</i></li> <li><i>(ii) complaint</i></li> <li><i>(iii) failure to comply with statutory requirements</i></li> </ul>	Completed in CEMP
	(g)	<i>a protocol for periodic review of the plan</i>	Completed in CEMP

### 3 INTRODUCTION

#### 3.1 GENERAL

##### 3.1.1 GENERAL CONDITIONS

**Contract:** Oakdale West Estate (OWE) – Public domain and infrastructure (SSD 7348 – MOD 9 – Stage 1).

**Local Council(s):** Penrith City Council

##### 3.1.2 DRAWING REFERENCE

All landscape plans, details and specifications included in the project documents should be read in conjunction with the Landscape Management Plan. All structural and civil works components of the landscape design should be referenced to engineers' details and specifications. Read the Landscape Management Plan in conjunction with these packages. If in doubt about any details or if conflicts are found in the documents, seek advice.

##### 3.1.3 WORKMANSHIP AND MATERIALS

All landscape works must be carried out by a competent, trained and qualified landscape contractor who is experienced in horticultural practices, landscape construction and planting techniques.

The landscape contractor must hold a current Building Contractors License and/or be a financial member of LNA Landscape Association NSW & ACT or equivalent organisations in other states.

##### 3.1.4 COUNCIL CONSULTATION

Queries and consultation with Penrith City Council (PCC) have been resolved as per the table below:

Query	Penrith City Council (PCC) Advice	Action
-	-	No action required

#### 3.2 DESCRIPTION

##### 3.2.1 SITE LOCATION

The Oakdale West Estate is located in the Penrith Local Government Area (LGA) at the far south-western extent of the Western Sydney Employment Area (WSEA). The site is bound to the north by the Water NSW Pipeline and to the east by the Ropes Creek riparian corridor. Land along the eastern boundary of the site is also affected by a transmission easement associated with TransGrid infrastructure.

Other boundaries interface with adjoining rural lands used for a mix of rural-residential, agricultural. Emmaus Catholic College and Emmaus Retirement Village is located to the west of the site. To the east of the site is Goodman's Oakdale South estate.

### **3.2.2 PURPOSE OF LANDSCAPE MANAGEMENT PLAN**

This Landscape Management Plan (LMP) has been developed as per the Development Consent for the Oakdale West Estate works specifically. The intended purpose of this LMP is to support the Oakdale West Estate LMP by providing greater detail on site management, visual and landscape treatments, and maintenance works

## 4 SITE MANAGEMENT

### 4.1 ENVIRONMENTAL ASPECTS

#### 4.1.1 DESCRIPTION

The Landscape Management plan seeks to manage potential visual impacts as a result of operational activities that may affect local and regional visual receptors. These impacts need to be managed to minimise impacts to sensitive visual receptors, and satisfy the conditions of the DA. It also outlines that ecological impacts are to be mitigated through adherence to the provisions set out Flora & Fauna Management Plan.

### 4.2 OBJECTIVES & PERFORMANCE CRITERIA

#### 4.2.1 OBJECTIVES

The objectives of this LMP include:

- *ensuring that the conditions of the DA and Goodman Landscape standards are met*
- *managing the visual impacts of the project to comply with the landscape performance criteria*
- *ensuring the visual and landscape treatments are consistent with the ecological revegetation works described in the Oakdale West Estate – Flora & Fauna Management Plan*

### 4.3 MANAGEMENT ACTIONS

#### 4.3.1 RETENTION OF EXISTING ENVIRONMENT

##### Existing vegetation retention

Procedures detailing how existing native vegetation in the north western corner of the Site will be protected from construction impacts are provided for in the "Oakdale West Estate - Terrestrial Flora and Fauna Management Plan" (*écologique, June 2019*).

Generally, clearly marked and identified No-Go zones are to be established with star pickets and parawebbing, with site-wide vegetation clearing minimised where possible. Trees that are to be retained are to have a 2x dripline exclusion zone where no motor vehicles are to be operated. Compaction of soil and trampling of tree roots by machinery may lead to the damage and death of retained trees and should be avoided. All site offices, compounds and stockpile areas are to be located within the limits of clearing or otherwise away from No-Go zones. Construction vehicle movements are to be restricted to the haul road network or previously disturbed areas, and should not enter into retained vegetation areas beyond the approved impact areas. At no point is cleared vegetation to be bulldozed into adjacent bushland retained beyond the limits of clearing. These areas will be under the supervision of the project ecologist.

Sediment and erosion control measures are to be installed prior to earthworks and maintained for the duration of the works in accordance with the Project's CEMP. Prior to soil disturbance, appropriate boundary sediment controls shall be installed around all biodiversity management areas and other isolated areas of remnant vegetation to be retained. Stockpiles are not to be placed within

No-Go zones and shall be located at least 5 metres from existing vegetation, concentrated water flow areas, roads and hazard areas. Earth banks are to be constructed on the upslope side to divert water around stockpiles. Further information on sediment and erosion control can be found in the "Oakdale West Estate - Terrestrial Flora and Fauna Management Plan" and the "Erosion and Sediment Control Plans"

### **Trees to be Retained and Protected**

Refer to *Oakdale West Estate - Flora and Fauna Management Plan* for information and requirements relating to existing trees to be protected.

Tree protection measures must be in accordance with Australian Standard AS4970-2009 Protection of trees on development sites.

Any "Site works" including the demolition of existing structures or the entrance onto the site with any machinery for excavation, demolition or large-scale rubbish removal requires protection measures to be installed. These protection measures must be installed prior to the commencement of any site work in accordance with Australian Standard AS4970-2009 Protection of trees on development sites.

- *Identify and mark trees and shrubs to be retained using a suitable non-injurious, easily visible and removable means of identification.*
- *Protect from damage the trees and shrubs to be retained, including those beyond the site area, both above and below the ground.*
- *If a tree becomes damaged during the works or it is proposed to perform work on a tree, give written notice immediately and obtain instructions.*
- *Keep the area of the drip-line free from construction material and debris. Do not place bulk materials and harmful materials under or near trees.*
- *Do not place spoil from excavations against tree trunks.*
- *Prevent wind-blown materials such as cement from harming trees and plants.*
- *Do not remove topsoil from, or add topsoil to, the area within the drip-line of trees.*

Where existing vegetation is to be retained, that vegetation must be protected from soil compaction, root, trunk and limb damage, soil contamination and changes in surface levels that affect the health of the vegetation.

### **4.3.2 TEMPORARY LANDSCAPE MANAGEMENT**

Site compound access must be suitable in all weather conditions. Therefore, the main site compound is located just North of the Southern site boundary, near Bakers Lane.

The compound is identified below.



Site compounds along the southern site boundary have been offset by 40m to ensure minimal visual impact.



Image 1 – Proposed Compound Location: Taken at the nominated bulk earthworks level looking towards Sensitive Receiver 2 and 3. Existing trees provide visual amenity to the proposed compound location.



Image 2 – Proposed Compound Location: Taken at the nominated bulk earthworks level looking towards sensitive receiver 1. Existing trees provide visual amenity to the proposed compound location.



Image 3 – Proposed Compound Location: Taken at the nominated bulk earthworks level looking towards sensitive receiver 1. Existing trees provide visual amenity to the proposed compound location.



Image 4 – Proposed Compound Location: Taken at the nominated bulk earthworks level looking towards sensitive receiver 1. Existing trees provide visual amenity to the proposed compound location.



Image 5 – Proposed Compound Location: Taken at the nominated bulk earthworks level looking towards sensitive receiver 1. Existing trees provide visual amenity to the proposed compound location.



Image 6 – Proposed Compound Location: Taken from proposed compound location towards Western Boundary. Existing levels are currently higher than the proposed pad bulk level. Landscape Bund to provide visual amenity and reduce the visual impact of works adjacent to school. Further detail of the Landscape Bund is located in the **Section 4.3.3 of this LMP.**

As part of the Soil and Water Management measures implemented by 'The Contractor', the topsoil that is stripped from the site will be stockpiled adjacent in berms adjacent to the tops/toes of batters. Once the earthworks batters in both cut and fill situations are complete, the topsoil will be placed back on these batters and revegetated as required. For completed building pad footprints, 'The Contractor' is to apply a stabilisation polymer with green dye to improve visual amenity of the Site, whilst simultaneously suppressing dust and erosion from exposed soil.

Landscape management actions to mitigate the construction of site sheds, compounds, and machinery parking areas fall into a temporary landscape treatment. The procedures for these treatments require progressive grassing on exposed soils following construction (after disturbance).

Progressive grassing involves seeding, which must be carried out within 2 days of completion of soil preparation, or in the case of inadequate weather conditions, as soon as reasonably practicable after preparation of earthworks. Seed mixture is to be agitated continuously during application, where it is to be applied uniformly over the whole surface. A minimum thickness must be achieved to ensure successful seed germination and growth. Further detail of progressive grassing techniques can be found within the **Landscape Specification and Drawings Packages**.

As outlined in the Visual Impact Assessment, generally visual impacts of site construction are minimal with the western edge being the main exception. As a result, a landscape bund is to be completed early on in the Projects timeline. Further detail of the Landscape Bund is located in the **Section 4.3.3 of this LMP**, and further information about visual impacts can be found in the "Visual Impact Assessment".

Refer to Detail 03-01-03 – L.CD.600 for pasture grass revegetation.

Refer to Section 7.1 and 7.2 in Appendices for referenced **Landscape Specification and Drawings**.

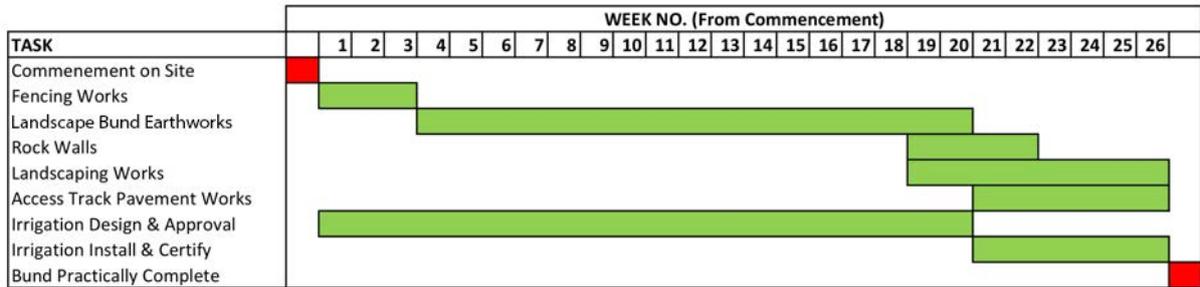
#### 4.3.3 PERMANENT LANDSCAPE MANAGEMENT

##### **Landscape Bund**

The major screening element to be constructed will be the environmental bund along the western boundary of the site, which has already been constructed and is well vegetated.

Once the site is established and environmental protections are in place, the new western boundary fence with snake barrier adjacent the school will be installed. Earthworks will commence to provide the spoil material for the western bund which will be formed, shaped, landscaped and irrigated, with a commitment made that this will be complete within 6 months of commencing earthworks on site, and prior to operation of Stage 1. Vegetation on this landscape bund is to incorporate mature trees that are no less than 75 litre in pot size. For further information regarding landscape bund implementation refer to the table below and Construction Management Plan.

**Target Programme for Western Landscape Bund**  
Oakdale West Estate



Further detail of the landscape bund can be found within the Oakdale West Estate Landscape Drawings (Refer to Section 3 on Landscape Drawing L.CD.501 and detail 08-02-08 on Landscape Drawing L.CD.601).

**Integration of landscaping with fixed elements**

The Integration of fixed elements and the landscape within the Oakdale West Estate (OWE) include elements such as:

Bio Retention Basins No.'s 2, 3, 4 and 5

Bio Retention Basins are to have a 1m turf strip at the top of the batter to ensure the hinge point is covered as this is a critical erosion area. Below this, the basins are to be vegetated with **RM3** 'Pasture Grass Revegetation Mix'. Refer to Landscape detail 03-01-02 on L.CD.600 and Section 4.8 under Landscape – Planting in the Landscape Specification for further details. Refer to Section 7.1 and 7.2 in Appendices for referenced Landscape Specification and Drawings.

Drainage Culverts

All drainage culverts are to be finished as per the CIVIL ENG. Drawings. Monitor maintenance requirements at the interface of all drainage culverts & gutters (Section 5 of this LMP).

Entry Signage

Entry signage is typically to be installed within TF1 – Turf Rolls. Monitor Maintenance requirements of lawn care with interface elements (Section 5 of this LMP).

Fencing & Gates

All fencing and gates are to be finished as per the CIVIL ENG. Drawings. Monitor Maintenance requirements with lawn care at fence and gate interfaces (Section 5 of this LMP).

Maintenance and Access Tracks

Typically, the maintenance tracks around the Bio Basins are to be revegetated with **RM1A/B & RM3**. Refer to Landscape detail 03-01-02 and 03-01-03 on L.CD.600 for further details

Noise Walls

Noise walls are typically to be installed within TF1 – Turf Rolls or revegetation mixes (seed). Monitor maintenance requirements of lawn care, hydroseeding and their interfaces (Section 5 of this LMP).

Planted Verges (Excluding Turfing)

Where road medians and verges are to be planted, **250mm of mulch only** is to be used next to kerbing. Refer to Landscape detail 03-02-20 on L.CD.600 for further details.

Retaining Walls

Retaining walls and balustrading are to be finished as per CIVIL ENG. Drawings. Planting at the top of RW09 is inclusive of spill over species (PM4B) these are to be planted at the front of the top of the wall. PM4B is also to be planted at the base of the wall as a buffer between the outlet swale and RW09. **Refer to Section 4 on Landscape Drawing L.CD.501** for further detail.

**5 VISUAL AND LANDSCAPE TREATMENTS**

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**5.1 GENERAL**

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**5.1.1 QUALITY**

This section of the Landscape Management Plan describes the procedures to ensure the success of the landscaping work over the life of the development.

All landscaped areas must be maintained to the approval of the principal and landscape architect.

**5.1.2 APPROACH**

A proactive approach to all landscape tasks must be adopted to ensure that the appearance of the landscape as a whole is highly presentable at all times.

**5.1.3 REQUIREMENTS**

Contractors must submit annual routine landscape maintenance program to the Project Superintendent, Landscape Manager and/or the Landscape Architect within two weeks of the contract commencement date.

It is the contractor's responsibility to ensure the success of the landscaping work over the establishment period of the development.

**5.2 MAINTENANCE PROGRAMS**

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**5.2.1 GENERAL CONDITIONS**

The Contractor shall rectify all defects during installation that become apparent in the works during the defect's liability period (**18 months**).

The Contractor shall maintain the contract areas by the implementation of industry accepted horticultural practices between the date of practical completion and the date of final completion (**18 months**).

The landscape maintenance works shall include, but not be limited to the following:

- *Replacing failed plants*
- *Pruning*
- *Herbicides/Insect and pest control*
- *Fertilizing*
- *Maintaining mulch*
- *Mowing*
- *Watering/Irrigation*
- *Weeding*
- *Rubbish removal; and Cleaning of the surrounding areas.*
- *Timber stakes and ties*

**Ongoing maintenance:** Ongoing maintenance facilitated by the Owner's corporation. Goodman is to contract the management of all landscape areas. The standard specification and reporting requirements of this contract are located in Goodman's Landscape Guidelines. **Refer to Section 7.3 in Appendices** for further detail.

**Safety:** Safety procedures/ plans are to be documented for review by Principal prior to commencement of work.

Failure to maintain the landscape planting in a healthy condition may result in the Principal arranging for the maintenance work to be carried out by others at your expense.

### 5.2.2 AREAS DEFINED IN LANDSCAPE MAINTENANCE PLAN

Hard and Soft Landscape works to be maintained throughout the maintenance program includes all landscape areas including the landscape bund and street trees.

### 5.2.3 PROTECTION OF PERSONS AND PROPERTY

**Temporary works:** Provide and maintain required barricades, guards, fencing, shoring, temporary roadways, footpaths, signs, lighting, watching and traffic flagging.

**Accessways, services:** Do not obstruct or damage roadways and footpaths, drains and watercourses and other existing services in use on or adjacent to the site. Determine the location of such services.

**Property:** Do not interfere with or damage property which is to remain on or adjacent to the site, including adjoining property encroaching onto the site, and trees.

### 5.2.4 RECTIFICATION

**Accessways, services:** Rectify immediately any obstruction or damage to roadways and footpaths, drains and watercourses and other existing services in use on or adjacent to the site. Provide temporary services whilst repairs are carried out.

**Property:** Rectify immediately any interference or damage to property which is to remain on or adjacent to the site, including adjoining property encroaching onto the site, and trees.

### 5.2.5 EXISTING SERVICES

**General:** Attend to existing services as follows:

- *If the service is to be continued, repair, divert or relocate. Submit proposals.*
- *If the service crosses the line of a required trench, or will lose support when the trench is excavated, provide permanent support for the existing service. Submit proposals.*
- *If the service is to be abandoned, remove redundant parts, and make safe.*

**Proposals:** Submit proposals for action to be taken with respect to existing services before starting this work. Minimise the number and duration of interruptions.

### 5.2.6 ACCESS FOR MAINTENANCE

**Requirement:** Provide access for maintenance of plants and equipment.

**Standards:** Conform to the relevant requirements of AS 1470, AS 1657, AS/NZS 1892.1, AS 2865 and AS/NZS 3666.1.

**Work Health and Safety:** Conform to the requirements of the applicable Work Health and Safety regulations for all temporary and permanent works.

**Protection from injury:** Protect personnel from injury caused by contact with objects including those that are sharp or protrude at low level.

### 5.2.7 LOGBOOK

Ensure a Maintenance Logbook is recorded to demonstrate that maintenance work has been undertaken and what materials, including chemical materials, have been used throughout the maintenance and establishment period.

The logbook must include the date of visit, maintenance works completed, maintenance works in progress and maintenance works required. The logbook must give details of damaged, dead or missing plants and show their locations on the relevant sheets of the Drawings.

Use the logbook to identify chemicals used as well as the reason for their use. Submit the initial logbook for inspection prior to Practical Completion and again at the end of the Defects Liability Period as a prerequisite for granting Practical and Final Completion Certificates.

Record all major events and activities in the logbook. Ensure the logbook is available for inspection on request.

## 5.3 MAINTENANCE WORKS

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### 5.3.1 PLANT CARE

**Planting:** Ensure the general appearance and presentation of the landscape and the quality of plant material at date of practical completion is maintained for the full planting establishment period. Trees, shrubs and groundcovers shall at all times display healthy growth. Spent flower heads or stalks shall be removed immediately following flowering.

All shrubs, hedges, ground covers and trees must be trimmed into shape as required to an acceptable presentation standard.

Excessive foliage impacting onto roads, paths, fencing and lighting must be pruned during all site visits. Leaf litter and or all cuttings should be removed from all gardens and site each visit and disposed of at contractor's cost. Any dead or dying plants/shrubs should be removed and replaced with same or comparable species. The Landscape Manager must be consulted when large trees need to be removed and or replaced. The contractor will maintain each plant in a healthy condition to increase the visual appeal of the gardens.

**Replacements:** Replace failed, dead and/or damaged plants at maximum 3-week intervals as necessary throughout the full plant establishment period. Replacement plants shall be in a similar size and quality and identical species or variety to the plant that has failed. Replacement of plants shall be at the cost of the Contractor unless advised otherwise. If the cause of the failure is due to a controllable situation then correct the situation prior to replacing plants. Keep all planting areas as specified and free of grass and weed.

Carry out grass and weed removal at intervals of not more than four (4) weeks and ensure that weeds do not flower to form seed heads.

For those species listed by the relevant local government authority as noxious under the [Biosecurity Act 2015](#) take action as required by that local Government Authority (Penrith City Council). [Refer to the Flora and Fauna Management Plan \(FFMP\) for further information regarding Weed Management and Mitigation Measures.](#)

### 5.3.2 PRUNING

**General:** Prune to the Pruning schedule and AS 4373.

Any pruning requested by the Landscape Architect shall be performed, including any pruning of damaged growth or miscellaneous pruning considered as beneficial to the condition of the plants. All pruning works shall be undertaken in a manner equal to acceptable horticultural practice.

Pruning to ensure pathways, roads, lighting and services such as fire hydrants, overhead services and signs are kept clear from encroaching growth of plant material at all times.

- *Remove all damaged, dead or diseased wood by pruning to the nearest lateral shoot or active bud with a neat clean cut*
- *No more than 40mm - 50mm of new growth present on hedges at any time*
- *Remove all spent or dead flower heads from plants following flowering*
- *Prune young shrubs for shape by pinching out the growing tips to encourage lateral bushy growth*
- *Hedging shall be carried out to appropriate plants within garden beds. This should be carried out on a regular basis so as to avoid cutting back into 'old wood' in order to achieve the desired form.*
- *All existing hedges on site to be maintained*
- *Removal of suckers from base of trunks*
- *Formative pruning of trees to allow effective canopy development and retain natural or desired shape of the tree*
- *Pruning cuts shall be made and close to the bud at a 45° angle to ensure that any water is shed away from the bud*

### 5.3.3 SPRAYING

Responsibility for insect and disease control: Contractor

**Period of treatment:** Until the problem has been eliminated.

**Chemical spray:** Apply outside of normal working hours.

Avoid spraying:

- *whenever possible*
- *in the case of wet weather*
- *if wet weather is imminent*
- *if target plants are still wet after rain*
- *during windy weather*
- *if adjacent desirable species are too close to the target plants to be avoided.*

Do not spray where herbicide could fall into a watercourse or when wind conditions could cause drift outside the area to be treated or onto desirable plants.

After spraying, lop any dead weeds flush with the ground surface and dispose of the cuttings. Remove by hand any weeds which cannot be controlled by herbicide. Ensure that the entire weed including all roots is removed. Dispose of the weeds off site.

Immediately report to the Project superintendent/landscape manager any evidence of intensive weed infestation, insect attack or disease amongst plant material. Submit all proposals to apply chemicals and obtain approval before starting this work.

When approved, spray with herbicide, insecticide, fungicide as appropriate in accordance with the manufacturers' recommendations. Record in the logbook all relevant details of spraying activities including:

- *Product brand / manufacturer's name*
- *Chemical / product name*
- *Chemical contents*
- *Application quantity and rate*
- *Date of application and location*
- *Results of application*

#### 5.3.4 FERTILISING

**Soil tests:** Take samples from planting beds areas and conduct tests.

**Fertilising:** Base the fertilisation program on the soil testing results. Fertilise trees once every two years. Generally, apply an all-purpose fertiliser of N:P: K (nitrogen: phosphorus: potassium) 10:4:6 at recommended rates. Alternatively apply 12-month slow release fertiliser (such as Nutricote) at the manufacturer's recommended rate. Apply all-purpose fertiliser to shrubs annually in two bands and cultivated into the soil 100 mm deep.

Record in the logbook all relevant details of fertilizing including:

- *Product brand / manufacturer's name*
- *Fertilizer / product name*
- *Application quantity and rate*
- *Date of Application and Location*

#### 5.3.5 STAKES, TIES, TREEGUARDS AND ROOT BARRIERS

Stakes

**Generally:** If plants are unable to be self-supported or if stakes are damaged, stake or restake the plants

**Material:** Hardwood, straight, free from knots or twists, pointed at one end.

**Installation:** Drive stakes into the ground at least one third of their length, avoiding damage to the root system.

Stake sizes and quantities:

- *For plants  $\geq 2.5$  m high: Three 50 x 50 x 2400 mm stakes per plant.*

- For plants 1 to 2.5 m high: Two 50 x 50 x 1800 mm stakes per plant.
- For plants < 1 m high: One 38 x 38 x 1200 mm stake per plant.

#### Ties

**General:** Provide ties fixed securely to the stakes, one tie at half the height of the main stem, others as necessary to stabilise the plant. Attach ties loosely so as not to restrict plant growth.

#### Tie types:

- For plants  $\geq$  2.5 m high: Two strands of 2.5 mm galvanized wire neatly twisted together, passed through reinforced rubber or plastic hose, and installed around stake and stem in a figure eight pattern.
- For plants < 2.5 m high: 50 mm hessian webbing stapled to the stake.

#### Marker stakes

Material: Timber offcuts 25 x 25 x 1200 mm. Dip the top 200 mm in white paint.

Installation: Drive firmly into the ground at least 300 mm from the plant. Do not tie to the plant.

#### Location of marker stakes:

- Trees in grass: Mark each tree.
- Rip line planting areas: Mark each rip line at every fifth plant along the line.

#### Trunk protection/Tree guards

Collar guards: 200 mm length of 100 mm diameter agricultural pipe split lengthways.

**Removal:** If plants are robust with well-developed systems and are strong enough to no longer require support, remove stakes and ties at the end of the planting establishment period (Defects Liability Period).

- Adjust and replace as required to ensure plants remain correctly staked.
- Repair any tree ties that have been broken and replace any missing stakes.
- Maintain the tree guards around each plant so that the natural plant growth is not impeded or restricted. Replace damaged and missing tree guards as soon as practicable after being identified.
- Remove tree guards progressively as plants mature and where it is deemed that the tree guard provides no further benefit to the establishment of the plant.

#### Root Barriers

**Type/ location:** Street Trees Refer Detail 08-02-22 on L.CD.601 City Green 'ReRoot' 600mm Depth

**Supplier:** City Green. Ph: +61 1300 066 949

<https://citygreen.com/products/reroot/>

### 5.3.6 MULCHED SURFACES

The contractor is required to maintain all areas of mulch cover within garden beds. Displaced mulch should be returned to the garden beds wherever possible. All areas of mulch cover must be packed to a depth of 75mm. If replacement of mulch is required, the contractor must notify the Landscape Manager and provide quotation for approval. Specific mulch must be approved prior to installation.

### 5.3.7 HYDROMULCHING

**General:** Maintain temporary and permanent grassing areas.

**Weeding:** Remove weeds that emerge in newly established hydroseeded/hydromulched areas.

**Reseeding:** Repair topsoil, supplementing if necessary, to achieve design surface levels. Reseed over the course of the contract to maintain required densities and repair bare patches.

**Watering:** Until germination, keep the surface damp and the topsoil moist but not waterlogged.

**After germination:** Water to maintain a healthy condition, progressively hardened off to the ambient climatic conditions

### 5.3.8 MOWING AND TOPDRESSING

Mow and edge all turf areas and remove all grass clippings. Do not mow if there is litter, roadside rubbish and debris left on the turf as the litter may be transformed into confetti-like pieces after mowing.

Unless directed otherwise, the cut grass height must not be less than 35 mm or greater than 75 mm. Do not remove more than 50% of the height of the uncut grass at any one time. The upper limit may be varied to account for terrain, species of grass and presence of debris. Clippings may remain where they fall, except for those that fall on road surfaces, line drains, footways or paved areas where they must be swept clear.

#### **Lawn care**

Lawn areas, including nature strips must be neatly mown and edged weekly in the high season (summer months), fortnightly in the low season (winter months), or weekly if required due to abnormal weather condition. All clippings must be removed from the site. All lawns must be fertilized once a year with an approved lawn fertilizer.

#### **Interface Issues**

Where landscape treatments requiring lawn care interface fixed elements such as signage, fencing and walling ensure optimal care to avoid damaging the fixed element.

### 5.3.9 IRRIGATION & WATERING

Maintain the irrigation system to sure that each individual plant receives the required amount of water to maintain healthy growth, adjust and rectify as required.

Provide additional hand watering, if irrigation system fails or is yet to be installed. Undertake watering at two-day intervals for four weeks after completion of each planting area.

The irrigation system must be fully functional at all times to ensure that all plants, trees and lawns receive adequate water at optimal frequency. The system should be tested during each site visit to ensure proper operation timing is set correctly. Adjustments must be made where necessary.

It is the contractor's responsibility to submit a bi-monthly report throughout the defect's liability period. This report should include a comprehensive report on the operational function of the system.

Notification as to when the system is in need of major repair must be done so immediately as the cost of major repairs to the system can be claimed as variation to the contract price and should be invoiced separately.

When water restrictions prevent the use of the irrigation system, arrangements must be made by the contractor to provide an alternative system of watering. Under no circumstances should plant stock be allowed to perish through lack of water.

Locations of water supply points have been marked indicatively on Landscape Drawings; all irrigation supply conduits are subject to Sydney Water Approval.

#### 5.3.10 EROSION CONTROL MEASURES

Where necessary, maintain the erosion control devices in a tidy and weed free condition and reinstate as necessary to ensure control measures are effective where deemed necessary. [Refer to the \*\*Erosion and Sediment Control Plan\*\* for erosion control measures.](#)

#### 5.3.11 FINAL CLEANING

Lamp and filter replacement and the like are dealt with in the various SERVICES worksections.

**General:** Before practical completion, clean throughout, including interior and exterior surfaces exposed to view. Clean debris from the site, roofs, gutters, downpipes and drainage systems. Remove waste and surplus materials.

The contractor shall target weeds that are capable of producing a major infestation of unwanted plants by seed distribution. Whenever possible, time weed removal to precede flowering and seed set.

**Samples:** Remove non-incorporated samples, prototypes and sample panels.

#### 5.3.12 REINSTATEMENT

**General:** Before practical completion, clean and repair damage caused by installation or use of temporary work and restore existing facilities used during construction to original condition.

#### 5.3.13 ADJOINING PROPERTY

**Evaluation:** At practical completion, for properties described in the Adjoining properties to be Recorded schedule inspect the properties with the project superintendent, recording any damage that has occurred since the pre-commencement inspection.

#### 5.3.14 REMOVAL OF PLANT

**General:** Within 10 working days after practical completion, remove temporary works and construction plant no longer required. Remove the balance before the end of the defect's liability period.

### 5.3.15 URGENT WORKS

Not with standing anything to the contrary in the Contract, the Project Superintendent may instruct the Contractor to perform urgent maintenance works that place the completed contract works at risk.

If the Contractor fails to carry out the work within seven (7) days of such notice, the Project Superintendent (or representative) reserves the right without further notice to employ others to carry out such urgent and specified work and charge the cost to the Contractor. Such work shall include but not limited to the inspection and clearing of drains in the pavement and gardens.

## 5.4 COMPLETION

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A final inspection shall be made by the Project Superintendent, Contractor and Landscape Architect before the completion of the Plant Establishment Maintenance Period (Defects Liability Period).

Any items requiring rectification shall be repaired before completion of the relevant works and finally approved prior to certification.

Maintenance requirements should extend for a minimum of 18 months after the completion of works (i.e. Practical Completion or PC). Prior to handover, the contractor(s) is/are required to submit all maintenance records, progress reports and a final monitoring report. The final monitoring report shall provide a summary of all works undertaken during the plant establishment period.

<b>6 MAINTENANCE SCHEDULES</b>
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The following Maintenance Schedule is only applicable to the 'Defects Liability Period' and/or 'Establishment Period'.

### 6.1 MAINTENANCE REPORT SCHEDULE

#### General

Landscape Maintenance Schedule, Landscape Maintenance Procedure Schedule and Landscape Specification are to be read in conjunction with one another

Task	Activity	Frequency						Action
		D	W	F	M	3-6M	Y	
1	Logbook				x		x	<p>Complete a logbook entry when at site and at a minimum every two weeks.</p> <p>Upon request, make the logbook available for inspection. Submit copies of new entries in the logbook to the Contract Administrator on a monthly basis.</p> <p>Maintenance requirements should extend for a minimum of 1 year after the completion of works or until such time as a minimum 80% survival rate for all plantings and a maximum five percent (5%) weed cover for the treated riparian corridors, basins and verge/median planting is achieved.</p>
2	Planting and Replacement			x	x			<p>Inspect planting every 2 weeks and remove spent flowers and dead stalks as they become apparent.</p> <p>Inspect and replace failed plants within 2 weeks of observation of failure. Match species with original planted sizes and location of new with old.</p>
3	Pruning			x				<p>Inspect every 2 weeks and prune as necessary to remove dead wood.</p>

## MAINTENANCE SCHEDULES

								Pruning should Improve plant shape and promote healthy new growth.
4	Spraying			x				Inspect every 2 weeks and action as necessary. Do not spray if other nonchemical methods will satisfy the need to remove pests. Spray for disease control only when absolutely necessary.
5	Fertilising					x		Fertilise gardens every 3 months or in accordance with fertiliser manufacturer's directions.
6	Stakes and Ties			x			x	Inspect every 2 weeks, adjust and/or replace as necessary but remove as plants mature and are able to support themselves.
7	Mulching						x	Inspect and replace mulch deficiencies within 2 weeks of observation. Prior to placing new mulch aerate the soil by fork turning to a depth of at least 100mm, roughly level the soil and then place mulch. Do not disturb major plant roots while aerating soil. It can be expected that mulch will have significantly broken-down after an estimated 12-month period following initial application. It is therefore, recommended that all mulch beds are topped-up with a 50mm layer of woodchip/leaf mulch (Compliant with AS 4454) at this stage. This should be accompanied by a topdressing application of a 9-month, slow release, low phosphorous fertilizer to ensure that semi-established plantings do not suffer as a result of potential nitrogen draw-down that may be associated with the application of the 50mm mulch layer at yearly period.
8	Hydroseeding		x		x		x	Remove weeds monthly that emerge in newly established hydroseeded/hydromulched areas.

## MAINTENANCE SCHEDULES

							<p>Reseed monthly over the course of the contract to maintain required densities.</p> <p>Water until germination, keep the surface damp and the topsoil moist but not waterlogged. After germination: Water to maintain a healthy condition, progressively hardened off to the ambient climatic conditions</p>
9	Mowing and Topdressing			x	x	x	<p>Summer fortnightly. Winter monthly.</p> <p>Top-dress 6 monthly.</p>
10	Irrigation and Watering	x		x			<p>Water when and where necessary every day at site and at least every 2 weeks generally. Do not allow soil and plants to dehydrate. Allow for prolonged rain, windy and dry periods. Water in the early morning or late afternoon to avoid excessive evaporation during the heat of the day.</p>
11	Erosion Control Measures						<p>Refer to the <b><u>Erosion and Sediment Control Plan</u></b> for <u>erosion control measures</u>.</p>
12	Final Cleaning			x		x	<p>Inspect and remove litter immediately upon observation. Leave no waste on site. Dispose of waste material at a designated waste disposal site. All herbaceous weeds should be managed to be at very-low percentage cover levels, (as a minimum), or better. Pasture grasses should be prevented from spreading into any bushland zones by applying a spot glyphosate herbicide spray application on the 1-metre wide buffer zone, on a monthly basis or as required. Maintenance weeding for a period of 12 months after the completion of primary works with an increase in maintenance hours occurring throughout the warmer growing months.</p>

13	Urgent Works		x					Complete within 1 week (7 days) of notification. Inspect and clear drains as required.
----	--------------	--	---	--	--	--	--	--

\* Key: D – Daily, W – Weekly, F – Fortnightly, M – Monthly, 3-6M – Quarterly or Half Yearly, Y – Yearly

## 6.2 MAINTENANCE PROCEDURE SCHEDULE

### Maintenance Scope of Works

The Maintenance procedure schedule should be used as a check list of tasks when in attendance

Week	Spring (Sep, Oct, Nov)	Summer (Dec, Jan, Feb)	Autumn (Mar, April, May)	Winter (June, July, Aug)
1	Mow and trim lawns	Mow lawns, weed	Mow Lawns	Weed
2	Weed; trim and adjust trees and shrubs	Weed; mow lawns, trim and adjust trees and shrubs	Weed; mow lawns, trim and adjust trees and shrubs	Mow and trim lawns Trim and adjust trees and shrubs
3	Mow and fertilise lawns; treat plant material for insects and disease	Mow lawns; weed; treat plant material for insects and disease	Mow and trim lawn	Weed
4	Weed; topdress, condition lawns and oversow bare patches; issue logbook	Weed; mow and trim lawns; issue logbook	Weed; mow lawns; issue logbook	Mow lawns; issue logbook
5	Fertilise all trees and shrubs in garden beds; mow and trim lawns	Mow lawns; weed	Mow lawns	Mow lawns
6	Weed; inspect mulch for deficiencies in cover; check and adjust irrigation	Mow lawns; check and adjust irrigation	Weed; inspect mulch for deficiencies in cover; check and adjust irrigation	Mow and trim lawns; treat for insects and disease; check and adjust irrigation
7	Reinstate mulch as required; treat plant material for insects and disease; mow lawns	Mow lawns; weed	Reinstate mulch as required; mow, trim and fertilise lawns	Weed
8	Weed; inspect condition of paving and furniture; issue	Mow and trim lawns; inspect condition of paving &	Weed; inspect condition of paving and furniture; issue	Mow lawns; Inspect condition of paving and furniture; issue

	logbook	furniture; issue logbook	logbook	logbook
9	Mow and trim lawns	Mow lawns; treat plant material for insects and disease	Mow lawns	Weed
10	Weed; mow lawns	Mow and topdress lawns	Weed; treat plant material for insects and disease	Mow and trim lawns
11	Mow and fertilise lawns; trim and adjust trees and shrubs	Mow lawns; trim and adjust lawns; weed	Weed	Mow lawns; treat plant material for insects and disease
12	Weed; mow lawns; treat plant material for insects and disease	Mow, trim & fertilise lawns	Weed	Mow lawns; treat plant material for insects and disease
13	Check and adjust irrigation; mow lawns; issue logbook	Check and adjust irrigation; mow lawns; weed; issue logbook	Check and adjust irrigation; mow lawns; weed; issue logbook	Check and adjust irrigation; weed; issue logbook

### 6.3 IRRIGATION SCHEDULE

The following Irrigation Schedule is only applicable to the 'Defects Liability Period' and/or 'Establishment Period'.

#### Irrigation Maintenance Schedule

The Irrigation Maintenance Schedule should be used as a check list of minimum attendance

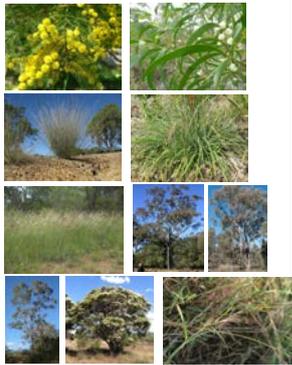
Task	Timeframe
Filters – Mainline	Monthly
Electrical Source Output (auto system)	Monthly
Controller (automatic system)	Monthly
Operation – Progression	Monthly
Activation of Valves	Monthly
Timing of Stations	Bi-Annually
Time and Day Readings	As Required
Exterior Appearance	Bi-Annually
Valve Operation	Bi-Annually
Open/Close Weeping	As Required
Sprinkler Operation	As Required
Rotaries – Clogged Nozzles	Bi-Monthly
Plant Obstructed Pattern	Bi-Monthly
Arc Coverage	Bi-Monthly

Radius Adjustment	Bi-Monthly
Pop-up Action	Bi-Monthly
Riser Seal Leaks	Bi-Monthly
Set to Grade	Bi-Monthly
Coverage Pressure	Bi-Monthly
Rotational Speed	Bi-Monthly
Clogged Screens	Bi-Monthly
Head Damage	Bi-Monthly
Piping	Bi-Monthly
Leaks – Broken or Cracked	As Needed
Poor Welding or Threading	As Needed
Connection	As Needed
Clogged Piping	As Needed
Irrigation Report	Bi-Monthly

## 6.4 PRUNING SCHEDULE

The contractor is to prune all plants or shrubs species as required to satisfy Goodman's presentation standard. Pruning should be carried out on a 'needs-basis' specific to each plant. Pruning should be carried out to encourage new growth that will result in a dense canopy density. No more than 30mm of new growth should be seen before pruning takes place. All plant pruning should be carried out using best horticultural techniques. No hedging of native grasses permitted at any time.

### 6.4.1 PRUNING SCHEDULE – OAKDALE WEST ESTATE (OWE)

Plant Mix	Shape/description	Critical issues	Pruning Frequency	Planting Palette
PM2	Native Screen Planting <i>Acacia decurrens</i> <i>Acacia implexa</i> <i>Aristida ramosa</i> <i>Cymbopogon refractus</i> <i>Dichelachne micrantha</i> <i>Eucalyptus crebra</i> <i>Eucalyptus moluccana</i> <i>Eucalyptus tereticornis</i> <i>Melaleuca decora</i> <i>Themeda triandra</i>	<b>Native Grasses</b> Drought tolerant, low water and fertiliser requirements. <b>Shrubs/Groundcovers</b> Drought tolerant, low water and fertiliser requirements. <b>General Trees</b> Plant in moist soils and ensure sufficient water when young	<b>Native Grasses</b> Remove spent flowers and any dieback. Only prune to maintain safe access. <b>Shrubs/Groundcovers</b> Prune after flowering to remove spent flowers, encourage healthy growth and maintain safe access. <b>Trees</b> Prune during flower dormancy and to encourage dense canopy	

Plant Mix	Shape/description	Critical issues	Pruning Frequency	Planting Palette
PM3A	<p>Verge Planting</p> <p><i>Gazania tomentosa</i>  <i>Hibbertia scandens</i>  <i>Trachelospermum jasminoides</i>  <i>Trachelospermum jasminoides</i>                      'Tricolor'</p>	<p><b>Shrubs/Groundcovers</b></p> <p>Drought tolerant, low water and fertiliser requirements.</p>	<p><b>Shrubs/Groundcovers</b></p> <p>Prune after flowering to remove spent flowers, encourage healthy growth and maintain safe access.</p>	
PM4A	<p>Mound Planting</p> <p><i>Acacia falcata</i>  <i>Angophora floribunda</i>  <i>Angophora subvelutina</i>  <i>Bothriochloa decipens</i>  <i>Bursaria spinosa</i>  <i>Chloris truncata</i>  <i>Corymbia maculata</i>  <i>Daviesia ulicifolia</i>  <i>Dianella revolute</i>  <i>Echinopogon caespitosus</i>  <i>Eucalyptus crebra</i>  <i>Eucalyptus eugenioides</i>  <i>Eucalyptus fibrosa</i>  <i>Eucalyptus moluccana</i>  <i>Eucalyptus pilularis</i>  <i>Eucalyptus tereticornis</i>  <i>Hardenbergia violacea</i>  <i>Indigofera australis</i>  <i>Lomandra longifolia</i>  <i>Melaleuca decora</i>  <i>Poa labillardieri</i></p>	<p><b>Native Grasses</b></p> <p>Drought tolerant, low water and fertiliser requirements.</p> <p><b>Shrubs/Groundcovers</b></p> <p>Drought tolerant, low water and fertiliser requirements.</p> <p><b>General Trees</b></p> <p>Plant in moist soils and ensure sufficient water when young</p>	<p><b>Native Grasses</b></p> <p>Remove spent flowers and any dieback. Only prune to maintain safe access.</p> <p><b>Shrubs/Groundcovers</b></p> <p>Prune after flowering to remove spent flowers, encourage healthy growth and maintain safe access.</p> <p><b>Trees</b></p> <p>Prune during flower dormancy and to encourage dense canopy</p>	
PM4B	<p>Shrub and Groundcover Planting</p> <p><i>Acmena smithii</i> 'Minor'  <i>Metrosideros thomasi</i>  <i>Nandina domestica</i> 'Gulf Stream'  <i>Pennisetum alopecuroides</i> 'Nafray'  <i>Photinia x fraseri</i> 'Red Robin'  <i>Trachelospermum jasminoides</i>  <i>Viburnum odoratissimum</i></p>	<p><b>Native Grasses</b></p> <p>Drought tolerant, low water and fertiliser requirements.</p> <p><b>Shrubs/Groundcovers</b></p> <p>Drought tolerant, low water and fertiliser requirements.</p>	<p><b>Native Grasses</b></p> <p>Remove spent flowers and any dieback. Only prune to maintain safe access.</p> <p><b>Shrubs/Groundcovers</b></p> <p>Prune after flowering to remove spent flowers, encourage healthy growth and maintain safe access.</p>	

Plant Mix	Shape/description	Critical issues	Pruning Frequency	Planting Palette
PM5	Basin Planting <i>Carex appressa</i> <i>Dianella longifolia</i> <i>Imperata cylindrica</i> <i>Juncus usitatus</i> <i>Lomandra longifolia</i>	<b>Native Sedges/Grasses</b> Tolerates periods of water inundation. If pruning for safe access is required never prune more than 1/3 of leaf total length.	<b>Native Sedges</b> Remove spent flowers and any dieback. Only prune to maintain safe access.	
PM7A	Feature Planting <i>Doryanthes excelsa</i> <i>Loropetalum chinense rubrum</i> 'China Pink'	<b>Shrubs/Groundcovers</b> Drought tolerant, low water and fertiliser requirements.	<b>Shrubs/Groundcovers</b> Prune after flowering to remove spent flowers, encourage healthy growth and maintain safe access.	

Revegetation Mix	Shape/description	Critical issues	Pruning Frequency	Planting Palette
RM1A & RM1B	Native Grasses and Groundcovers on Fill Embankment/Cut Batter <i>Aristida vagans</i> <i>Austrostipa ramosissima</i> <i>Chloris truncata</i> <i>Cymbopogon refractus</i> <i>Danthonia tenuior</i> <i>Dichelachne micrantha</i> <i>Entolasia stricta</i> <i>Eragrostis brownii</i> <i>Imperata cylindrica</i> <i>Poa labillardieri</i> <i>Themeda australis</i>	<b>Native Grasses</b> Drought tolerant, low water and fertiliser requirements.  <b>Shrubs/Groundcovers</b> Drought tolerant, low water and fertiliser requirements.	<b>Native Grasses</b> Remove spent flowers and any dieback. Only prune to maintain safe access.  <b>Shrubs/Groundcovers</b> Prune after flowering to remove spent flowers, encourage healthy growth and maintain safe access.	
RM3	Pasture Grasses <i>Cynodon dactylon</i> (Royal Bengal Couch)	<b>Annual / Perennial Grasses</b> Quick growing and soil stabilising species, ensure complete coverage of area and eradicate any competing undesirable species.	N/A	

Tree Mix	Shape/description	Critical issues	Pruning Frequency	Planting Palette
Tree Mix 1	Street Trees <i>Callistemon viminalis</i> 'Hannah Ray' <i>Eucalyptus fibrosa</i> <i>Eucalyptus punctata</i> <i>Eucalyptus tereticornis</i>	<b>Street Trees</b> Plant in moist but well drained soils with full or partial sun.	<b>Trees</b> Prune during flower dormancy, to encourage dense canopy and maintain safe access.	
Tree Mix 2	General Trees <i>Angophora floribunda</i> <i>Corymbia maculata</i> <i>Eucalyptus crebra</i> <i>Eucalyptus fibrosa</i> <i>Eucalyptus moluccana</i> <i>Eucalyptus tereticornis</i>	<b>General Trees</b> Plant in moist but well drained soils with full or partial sun.	<b>Trees</b> Prune during flower dormancy, to encourage dense canopy and maintain safe access.	
Tree Mix 3	Mound Trees <i>Angophora costata</i> <i>Eucalyptus amplifolia</i> <i>Eucalyptus crebra</i> <i>Eucalyptus fibrosa</i> <i>Eucalyptus moluccana</i> <i>Eucalyptus tereticornis</i>	<b>Mound Trees</b> Plant in moist but well drained soils with full or partial sun. Ensure sufficient water when young.	<b>Trees</b> Prune during flower dormancy, to encourage dense canopy and maintain safe access.	
Tree Mix 4	Feature Street Trees <i>Magnolia grandiflora</i> 'Exmouth' <i>Pyrus calleryana</i> 'Bradford'	<b>Feature Street Trees</b> Plant in moist soils and ensure sufficient water when young. Mulch in summer to retain high moisture levels and fertilise in spring to enhance floral display.	<b>Trees</b> Prune during flower dormancy, to encourage dense canopy and maintain safe access.	

## 6.5 CONTINGENCY MANAGEMENT PLAN

### Contingency Management Plan – Oakdale West Estate

Key Element	Trigger/ Response	Condition Green	Condition Amber	Condition Red
Irrigation	<b>Trigger</b>	Irrigation system operating at optimum frequency.	Irrigation system yet to be installed.	Irrigation system fails.

Key Element	Trigger/ Response	Condition Green	Condition Amber	Condition Red
	Response	No response required. Continue to monitor.	Provide additional hand watering until system is installed.	Provide additional hand watering until system is repaired. The irrigation system must be fully functional at all times to ensure that all plants, trees and lawns receive adequate water at optimal frequency.
Plant Failure	Trigger	No significant plant failure is present. Monitoring verifies that there is <5% of plants failing.	Monitoring verifies there is plant failure at a rate between 5% -10%.	Monitoring verifies there is plant failure at a rate greater than 10%.
	Response	No response required. Continue to monitor.	If the cause of failure is due to a controllable situation then correct situation prior to replacing plants. All planting areas are to be free of grass and weed. Replace plants with one of similar size and quality and identical species. of variety of the ones failed.	If the cause of failure is due to a controllable situation then correct situation prior to replacing plants. All planting areas are to be free of grass and weed. Replace plants with one of similar size and quality and identical species. of variety of the ones failed.
Revegetation Failure	Trigger	Revegetation is growing to desired design surface levels	Monitoring verifies that weed emergence has occurred.	Monitoring verifies that weed emergence and plant failure has occurred.
	Response	No response required. Continue to monitor.	Refer to LMP for monitoring requirements once problem has been identified. Possible solutions include the removal of weeds as per <b>Section 5.3.7 of this LMP.</b>	Refer to LMP for monitoring requirements once problem has been identified. Possible solutions include removal of weeds and re-seeding of revegetation cover crop as per <b>Section 5.3.7 of this LMP.</b>

Key Element	Trigger/ Response	Condition Green	Condition Amber	Condition Red
Slope Failure	Trigger	No significant erosion is present that would constitute a safety hazard or compromise the capability of supporting the end land use. Monitoring verifies there are no gully or tunnel erosion features, or rill erosion >200mm deep.	Monitoring verifies there is gully or tunnel erosion features, or rill erosion 200mm deep.	Monitoring verifies there is gully or tunnel erosion features, or rill erosion > 200mm deep.
	Response	No response required. Continue to monitor.	A suitably trained person to inspect the site. Investigate opportunities to install water management infrastructure to address erosion. Remediate as appropriate.	Undertake a review of the drainage of the area and provide recommendations to appropriately remediate the erosion. Remediate as soon as practicable.

<b>7 APPENDICES</b>
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**7.1 REFERENCED LANDSCAPE DRAWINGS**



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KEY MAP 



PROJECT

# Oakdale West Estate Landscape Master Plan - MOD 7

Kemps Creek, NSW

CLIENT

Goodman Property Services (AUST) PTY LTD

## Cover Sheet

PHASE

Development Application  
 Landscape Drawing Set

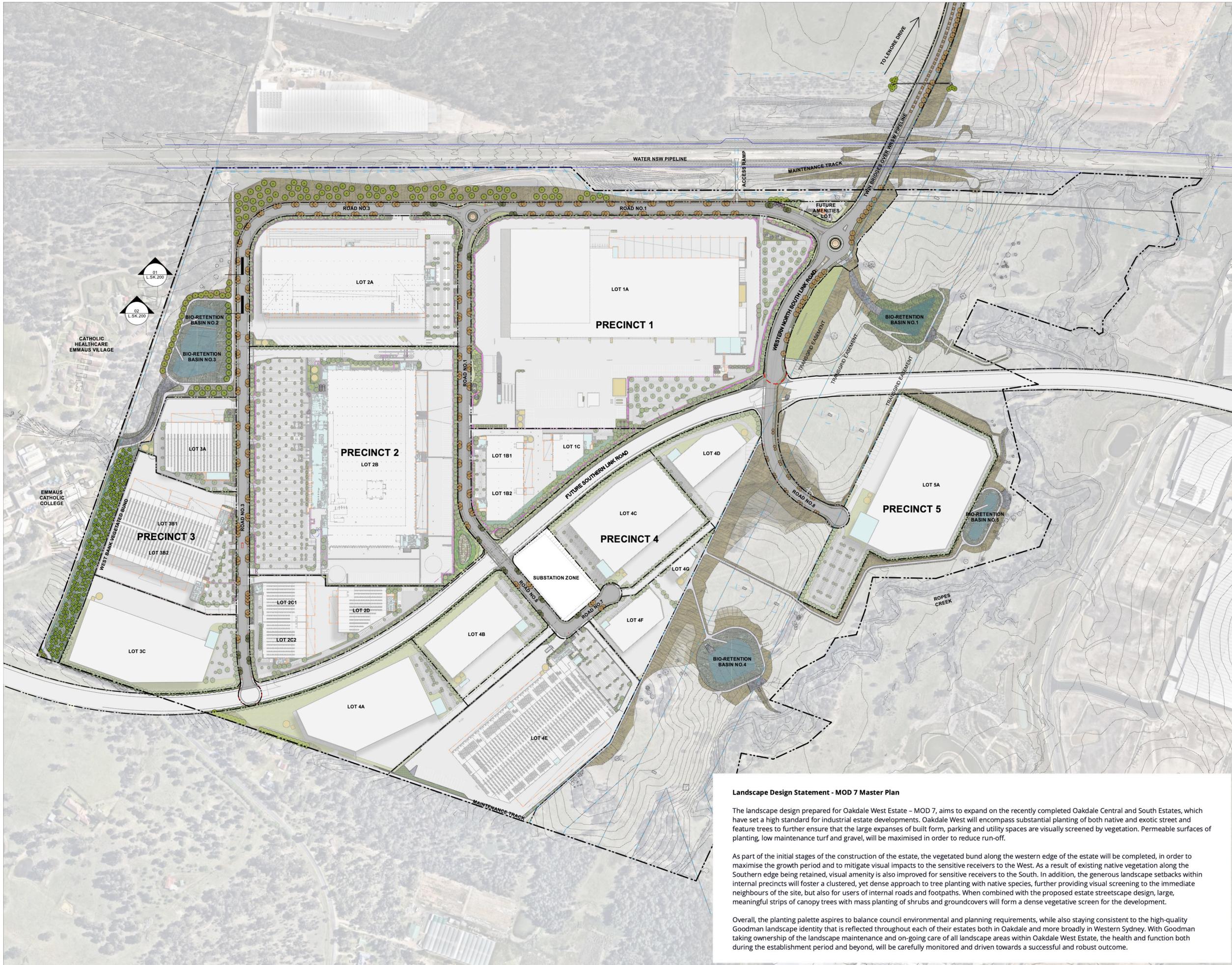
TRANSMITTAL

Dwg. Number	Dwg. Name	Revision	Date
L.SK.000	Cover Sheet	N	1/11/21
L.SK.100	Landscape Master Plan - OWE MOD 7	O	1/11/21
L.SK.101	Street Trees & Planting Master Plan -OWE MOD 7	K	1/11/21
L.SK.102	Planting Schedule Master Plan - OWE MOD 7	K	1/11/21
L.SK.200	Landscape Sections - OWE MOD 6	C	23/10/20

**Draft - Not For Construction - MOD 7**

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 Verify all dimensions on site prior to construction.

Note: All finished levels subject to change +/- 1000mm.



LEGEND	
<b>GENERAL</b>	<b>TREES</b>
--- Site Boundary	Existing Tree to be Removed Refer ARBORISTS REPORT
--- Lot Boundary	Existing Tree to be Transplanted/ original location
--- Temporary Roadworks	Existing Tree to be Transplanted/ new location
--- Fence	Existing Tree to be Retained
--- Retaining Wall	Proposed Tree General
--- Noise Wall	Proposed Tree On Lot
--- Structure above	Proposed Tree Street
--- Building	Proposed Tree Feature
--- Amenities Lot	Proposed Tree Feature Street
--- Biodiversity Management Area	
--- Proposed Street Lighting	
<b>PREPARATION &amp; GROUNDWORKS</b>	
--- Services	
--- Mulch	
<b>WALLS</b>	
--- Retaining Wall	
<b>PAVEMENTS</b>	
--- Temporary Recycled Aggregate	
--- Coarse Aggregate	
--- Charcoal Ballast	
--- Sandstone Ballast	
--- Asphaltic Concrete	
--- Insitu Concrete	
--- Precast Concrete	
--- Rock pitching	
<b>WATER ELEMENTS</b>	
--- Natural Grade	
<b>PLANTING</b>	
--- TF1-General Turf	
--- TF2-Feature Turf	
--- PM1A-Car park edge mix-sun	
--- PM1B-Car park edge mix-shade	
--- PM2A-Car park island mix-sun	
--- PM2B-Car park island mix-shade	
--- PM3A-Site edge mix - sun	
--- PM3B-Site edge mix - shade	
--- PM4-Site markers mix	
--- PM5A-Feature planting mix-sun	
--- PM6A-Site hedge mix-sun	
--- PM7A-Groundcover mix A	
--- PM7B-Groundcover mix B	
--- PM8A-Climbers mix - sun	
--- PM8B-Climbers mix - shade	
--- PM10-Verge planting mix	
--- PM11-Mound planting mix	
--- PM12-Swale planting mix	
--- PM13-Western boundary planting mix	
--- RM1A-Native grasses on fill embankment	
--- RM1B-Native grasses on cut batter	
--- RM3-Pasture grass revegetation mix	

**SCAPE DESIGN**

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**Draft**

PROJECT  
**Oakdale West Estate**

CLIENT  
**Goodman Property Services**

**Not For Construction**  
**MOD 7**

O	REVISED L2A, C & D	ZZ	1/11/21
N	REVISED LAE	ZZ	16/8/21
M	MOD 7 SSD	ZZ	24/6/21
revision	revision description	by	date

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**Landscape Master Plan - OWE MOD 7**

scale 1:3000@A1  
 drawn MF/ZZ  
 checked CH  
 project no. 163-18  
 project phase Development Application

**Landscape Design Statement - MOD 7 Master Plan**

The landscape design prepared for Oakdale West Estate – MOD 7, aims to expand on the recently completed Oakdale Central and South Estates, which have set a high standard for industrial estate developments. Oakdale West will encompass substantial planting of both native and exotic street and feature trees to further ensure that the large expanses of built form, parking and utility spaces are visually screened by vegetation. Permeable surfaces of planting, low maintenance turf and gravel, will be maximised in order to reduce run-off.

As part of the initial stages of the construction of the estate, the vegetated bund along the western edge of the estate will be completed, in order to maximise the growth period and to mitigate visual impacts to the sensitive receivers to the West. As a result of existing native vegetation along the Southern edge being retained, visual amenity is also improved for sensitive receivers to the South. In addition, the generous landscape setbacks within internal precincts will foster a clustered, yet dense approach to tree planting with native species, further providing visual screening to the immediate neighbours of the site, but also for users of internal roads and footpaths. When combined with the proposed estate streetscape design, large, meaningful strips of canopy trees with mass planting of shrubs and groundcovers will form a dense vegetative screen for the development.

Overall, the planting palette aspires to balance council environmental and planning requirements, while also staying consistent to the high-quality Goodman landscape identity that is reflected throughout each of their estates both in Oakdale and more broadly in Western Sydney. With Goodman taking ownership of the landscape maintenance and on-going care of all landscape areas within Oakdale West Estate, the health and function both during the establishment period and beyond, will be carefully monitored and driven towards a successful and robust outcome.

*Lagerstroemia indica* 'Tuscarora'



*Eucalyptus moluccana*



*Callistemon viminalis* 'Hannah Ray'



*Eucalyptus punctata*



*Pyrus calleryana* 'Bradford'



*Eucalyptus fibrosa*



*Eucalyptus tereticornis*



*Magnolia grandiflora* 'Exmouth'

**LEGEND**

**GENERAL**

- Biodiversity Management Area
- Temporary treatment

**PLANTING**

- TF1-General turf
- TF3-RMS turf
- PM10-Verge planting mix
- PM11-Mound planting mix
- PM12-Swale planting mix
- PM13-Western boundary planting mix
- RM1A-Native grasses on fill embankment
- RM1B-Native grasses on cut batter
- RM3-Pasture grass revegetation mix
- TM1-Street trees-Eucalyptus tereticornis
- TM1-Street trees-Eucalyptus fibrosa
- TM1-Street trees-Eucalyptus punctata
- TM1-Street trees-Callistemon viminalis 'Hannah Ray'
- TM2-Native screening trees-Refer L.SK.102
- TM3-Feature trees-Lagerstroemia indica 'Tuscarora'
- TM4-Western boundary trees-Refer L.SK.102
- TM5-Feature street trees-Pyrus calleryana 'Bradford'
- TM5-Feature street trees-Magnolia grandiflora 'Exmouth'
- General trees-Refer WNSLR Landscape Package
- Mound trees-Refer OWES1

**scape DESIGN**

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PROJECT  
**Oakdale West Estate**

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**Goodman Property Services**

**Not For Construction  
 MOD 7**

K	REVISED STREET TREE LOCATION	ZZ	1/11/21
J	MOD 7 SSD	ZZ	24/6/21
I	FOR COORDINATION	ZZ	4/6/21
revision	revision description	by	date

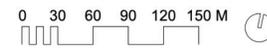
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**Street Trees & Planting  
 Master Plan - OWE MOD 7**

scale 1:3000@A1  
 drawn MF/ZZ/TR  
 checked CH  
 project no. 163-18  
 project phase Development Application

**L.SK.101** **K**

Note: All finished levels subject to change +/- 1000mm.



# PLANTING SCHEDULE

## TREE SCHEDULE

Botanical Name	Common Name	Height (m)	Spread (m)	Pot Size	Rate (m2)
<b>TM1 - Street Trees</b>					
<i>Callistemon viminalis</i> 'Hanna Ray'	Weeping Bottlebrush	4.0	2.0	25L	As Shown
<i>Eucalyptus fibrosa</i>	Broad-leaved Ironbark	30.0	10.0	75L	As Shown
<i>Eucalyptus punctata</i>	Grey Gum	30.0	10.0	75L	As Shown
<i>Eucalyptus tereticornis</i>	Forest Red Gum	30.0	10.0	75L	As Shown
<b>TM2 - Native Screening Trees</b>					
<i>Angophora floribunda</i>	Rough-barked Apple	20.0	10.0	75L	As Shown
<i>Corymbia maculata</i>	Spotted Gum	30.0	10.0	75L	As Shown
<i>Eucalyptus crebra</i>	Narrow leaved Ironbark	30.0	10.0	75L	As Shown
<i>Eucalyptus moluccana</i>	Grey Box	25.0	10.0	75L	As Shown
<i>Eucalyptus tereticornis</i>	Forest Red Gum	30.0	10.0	75L	As Shown
<b>TM3 - Feature Trees</b>					
<i>Lagerstroemia indica</i> 'Tuscarora'	Tuscarora Crepe Myrtle	6.0	4.5	75L	As Shown
<b>TM4 - Western Boundary Trees</b>					
<i>Eucalyptus fibrosa</i>	Broad-leaved Ironbark	30.0	10.0	75L	As Shown
<i>Eucalyptus moluccana</i>	Grey Box	25.0	10.0	75L	As Shown
<i>Eucalyptus tereticornis</i>	Forest Red Gum	30.0	10.0	75L	As Shown
<b>TM5 - Feature Street Trees</b>					
<i>Magnolia grandiflora</i> 'Ermouth'	Bull Bay Magnolia	12.0	7.0	75L	As Shown
<i>Pyrus calleryana</i> 'Bradford'	Ornamental Pear	12.0	8.0	75L	As Shown

## PLANTING SCHEDULE

PM10 - Verge Planting Mix	Area =	9169 sq.m		
<i>Acmena smithii</i> 'Minor'	4.0	1.8	140mm	2
<i>Callistemon 'White Anzac'</i>	1.0	1.0	140mm	2
<i>Callistemon viminalis</i> 'Little John'	0.6	0.8	140mm	2
<i>Dianella longifolia</i>	1.2	0.6	70mm	2
<i>Doryanthes excelsa</i>	2.0	1.5	200mm	1
<i>Gazania tomentosa</i>	0.3	1.5	140mm	2
<i>Goodenia hederacea</i>	0.8	1.0	140mm	2
<i>Grevillea juniperina</i> 'Gold Cluster'	0.3	1.0	140mm	2
<i>Hibbertia scandens</i>	2.0	2.0	140mm	2
<i>Lomandra longifolia</i> 'Tanika'	0.5	0.7	70mm	2
<i>Loropetalum chinense rubrum</i> 'China Pink'	1.5	1.5	200mm	2
<i>Metrosideros thomasi</i>	4.0	4.0	140mm	2
<i>Nandina domestica</i> 'Gulf Stream'	0.8	0.8	140mm	2
<i>Pennisetum alopecuroides</i> 'Nafray'	0.5	0.5	140mm	2
<i>Phormium cookianum</i> 'Tricolour'	1.5	1.2	200mm	2
<i>Phytolita x fraseri</i> 'Red Robin'	3.0	2.0	140mm	2
<i>Rhaphis spinescens</i>	0.8	1.0	70mm	2
<i>Scaevola albida</i> 'Blue Mist'	0.3	1.0	140mm	2
<i>Trachelospermum jasminoides</i>	0.9	0.3	140mm	2
<i>Trachelospermum jasminoides</i> 'Tricolor'	0.5	1.0	140mm	2
<i>Viburnum odoratissimum</i>	4.0	4.0	140mm	2
<b>PM11 - Mound Planting Mix</b>			Area =	12273 sq.m
<i>Acacia falcata</i>	3.0	1.5	70mm	3
<i>Angophora floribunda</i>	20.0	10.0	5L	3
<i>Aristida ramosa</i>	1.2	1.0	70mm	3
<i>Bothriochloa decipiens</i>	1.0	1.0	70mm	3
<i>Bursaria spinosa</i>	4.0	0.5	70mm	3
<i>Chloris ventricosa</i>	1.0	1.0	70mm	3
<i>Dianella revoluta</i>	1.0	1.5	70mm	3
<i>Dillwynia sieberi</i>	1.0	1.0	70mm	3
<i>Elymus scaber</i>	1.0	1.0	70mm	3
<i>Eucalyptus crebra</i>	30.0	10.0	5L	3
<i>Eucalyptus moluccana</i>	25.0	10.0	5L	3
<i>Eucalyptus tereticornis</i>	30.0	10.0	5L	3
<i>Hardenbergia violacea</i>	2.0	0.2	70mm	3
<i>Indigofera australis</i>	1.8	1.8	70mm	3
<i>Lomandra longifolia</i>	0.8	1.0	70mm	3
<i>Poa labillardieri</i>	1.3	0.7	70mm	3
<i>Themeda triandra</i>	1.5	0.5	70mm	3
<b>PM12 - Swale Planting Mix</b>			Area =	7354 sq.m
<i>Carex appressa</i>	0.7	0.5	70mm	2
<i>Dianella longifolia</i>	1.2	0.6	70mm	2
<i>Imperata cylindrica</i>	0.5	0.6	70mm	2
<i>Juncus usitatus</i>	1.0	0.7	70mm	2
<i>Lomandra longifolia</i>	0.8	1.0	70mm	2
<b>PM13 - Western Boundary Planting mix</b>			Area =	2324 sq.m
<i>Acacia decurrens</i>	5.0	3.0	140mm	2
<i>Acacia implexa</i>	8.0	7.0	140mm	2
<i>Aristida ramosa</i>	1.2	1.0	70mm	2
<i>Cymbopogon refractus</i>	0.6	0.4	70mm	2
<i>Dichelachne micrantha</i>	0.6	0.6	70mm	2
<i>Eucalyptus crebra</i>	30.0	10.0	5L	2
<i>Eucalyptus moluccana</i>	25.0	10.0	5L	2
<i>Eucalyptus tereticornis</i>	30.0	10.0	5L	2
<i>Melaleuca decora</i>	7.0	8.0	140mm	2
<i>Themeda triandra</i>	1.5	0.5	70mm	2

## REVEGETATION SCHEDULE

RM1A - Native Grasses on Fill Embankment	Area =	100782 sq.m		
<i>Aristida vagans</i>	0.8	0.5	Seed	1
<i>Austrostipa ramosissima</i>	2.0	1.0	Seed	1
<i>Windmill Grass</i>	0.5	0.2	Seed	1
<i>Chloris truncata</i>	0.6	0.3	Seed	1
<i>Cymbopogon refractus</i>	0.6	0.3	Seed	1
<i>Danthonia tenuior</i>	0.6	0.3	Seed	1
<i>Dichelachne micrantha</i>	0.5	0.1	Seed	1
<i>Entolasia stricta</i>	0.8	0.5	Seed	1
<i>Eragrostis brownii</i>	0.6	0.2	Seed	1
<i>Imperata cylindrica</i>	1.2	0.4	Seed	1
<i>Poa labillardieri</i>	1.3	0.7	Seed	1
<i>Themeda australis</i>	1.0	0.6	Seed	1
<b>RM1B - Native Grasses on Cut Batter</b>			Area =	5782 sq.m
<i>Aristida vagans</i>	0.8	0.5	Seed	1
<i>Austrostipa ramosissima</i>	2.0	1.0	Seed	1
<i>Chloris truncata</i>	0.5	0.2	Seed	1
<i>Cymbopogon refractus</i>	0.6	0.3	Seed	1
<i>Danthonia tenuior</i>	0.6	0.3	Seed	1
<i>Dichelachne micrantha</i>	0.5	0.1	Seed	1
<i>Entolasia stricta</i>	0.8	0.5	Seed	1
<i>Eragrostis brownii</i>	0.6	0.2	Seed	1
<i>Imperata cylindrica</i>	1.2	0.4	Seed	1
<i>Poa labillardieri</i>	1.3	0.7	Seed	1
<i>Themeda australis</i>	1.0	0.6	Seed	1
<b>RM3 - Pasture Grasses Mix</b>			Area =	12657 sq.m

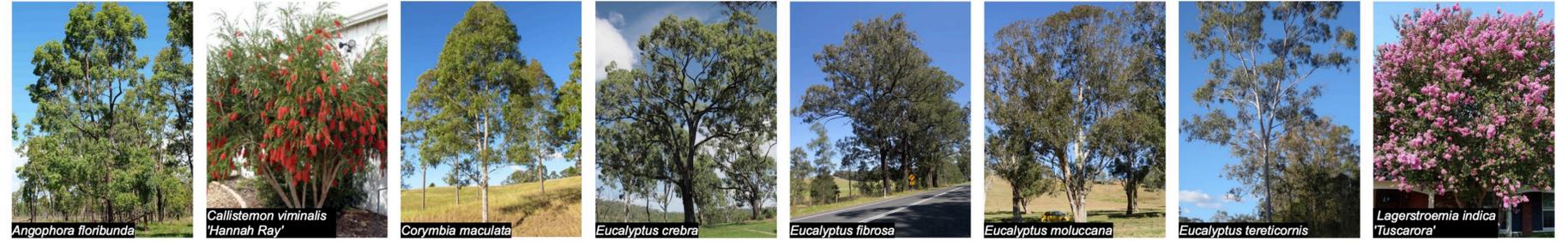
## TURFING SCHEDULE

TF1 - General Turf	Area =	18326 sq.m
<i>Stenotaphrum secundatum</i> 'Sir Walter'	Sir Walter Buffalo	Turf Roll
<b>TF3 - RMS Specified Turf</b>		
<i>Zoysia macrantha</i> 'Nara'	Zoysia macrantha 'Nara'	Turf Roll

**NOTE:**  
 1. Mass planting to be undertaken in large groupings of the same species to approval of landscape architect.  
 2. Hedging species are to be set out in linear arrangements of same species to approval of landscape architect.  
 3. All planting and turf areas to be irrigated with subsurface drip line. Refer to the Oakdale West Estate Landscape Management Plan and Goodman Landscape Guidelines for further information.

# PLANTING PALETTE

## Trees



## PM10 - Verge Planting Mix



## PM11 - Mound Planting Mix



## PM12 - Swale Planting Mix



## PM13 - Western Boundary Planting mix



## RM1A/1B - Native Grasses on Fill Embankment / Cut batter



## TF1 - General Turf



## TF3 - RMS Specified Turf



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**Oakdale West Estate**  
 Clients  
 Creek, NSW

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**Goodman Property Services**

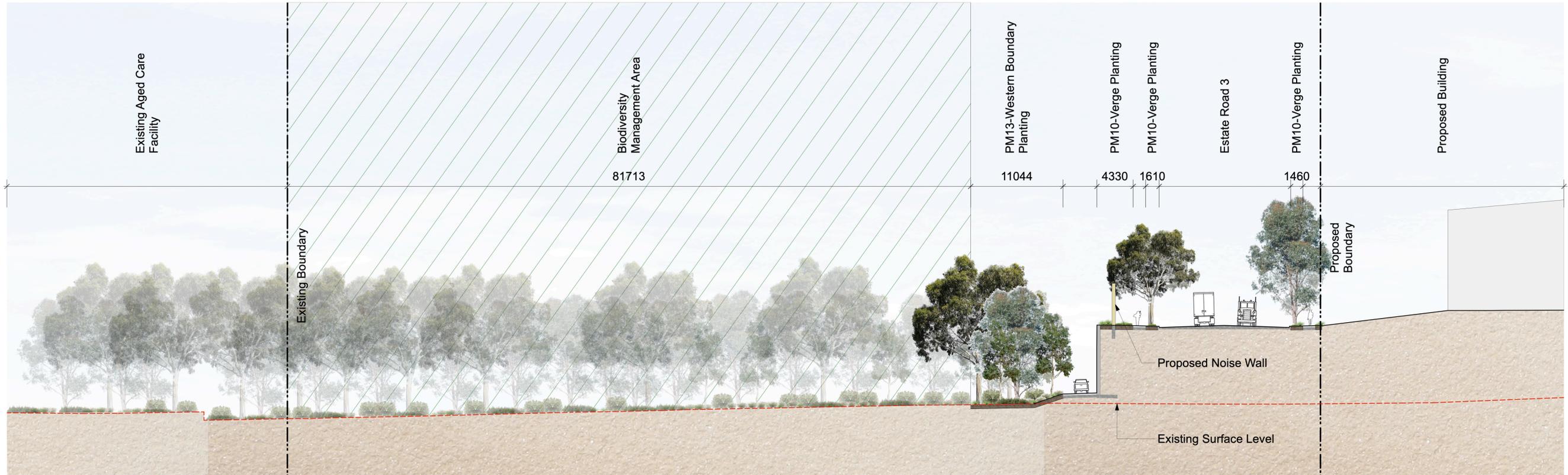
**Not For Construction  
 MOD 7**

K	REVISED STREET TREE LOCATION	ZZ	1/11/21
J	MOD 7 SSD	ZZ	24/6/21
I	FOR COORDINATION	ZZ	4/6/21
	revision		by date

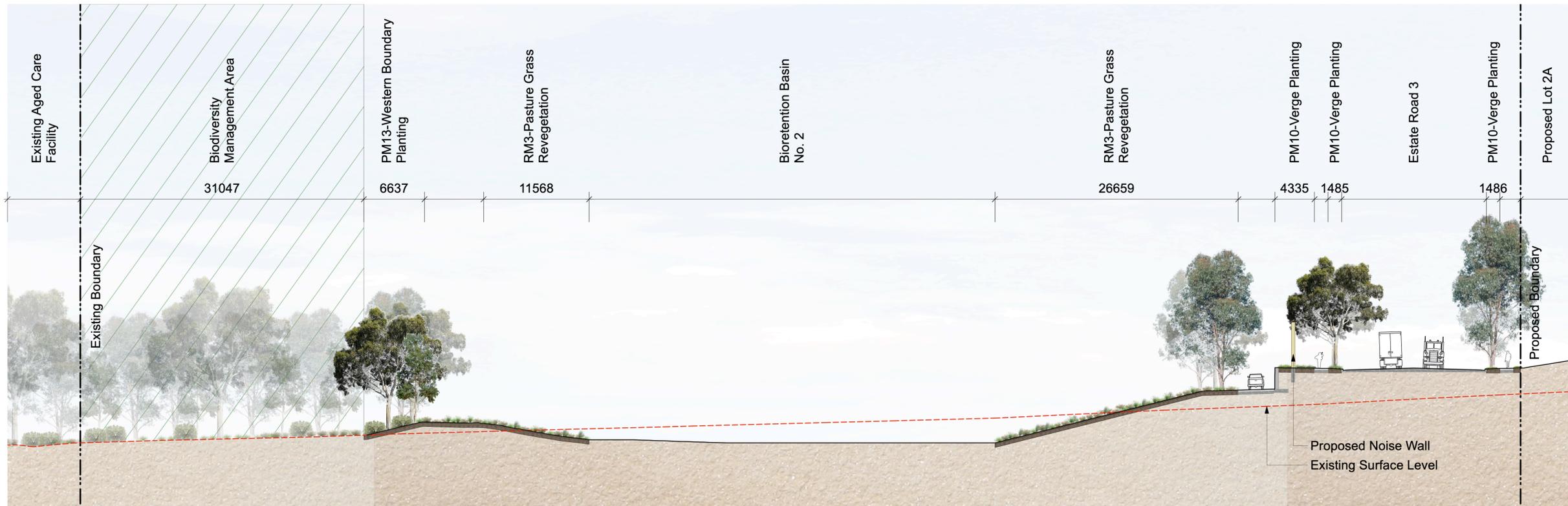
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 Verify service locations prior to commencement.  
 Verify all dimensions on site prior to construction.

## Planting Schedule Master Plan - OWE MOD 7

scale	NTS
drawn	MF/ZZ/TR
checked	CH
project no.	163-18
project phase	Development Application



01 Western Boundary Planting  
Scale 1:500 @A1



02 Western Boundary Planting  
Scale 1:500 @A1

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**Not For Construction  
MOD 6**

C	DEVELOPMENT APPLICATION	MF	23/10/20
B	DEVELOPMENT APPLICATION	MF	20/7/20
A	DEVELOPMENT APPLICATION	MF	14/2/20
	revision		by date

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**Landscape Sections -  
OWE MOD 6**

scale	1:500@A1
drawn	ZZ
checked	CH
project no.	163-18
project phase	Development Application

**L.SK.200**

## 7.2 REFERENCED LANDSCAPE SPECIFICATION

SD-163-18 Oakdale West Estate

Landscape – Planting

### Quantity of Soil Additive

Plant Size	Quantity
"Viro-Tube"	Nil
"Forestry Tube"	20 grams
"Semi Advanced"	40 grams
"Advanced"	80 grams
"Super Advanced"	400 grams
"Semi Mature"	One kilogram

### 3.8 STAKES AND TIES

#### Stakes

Material: Hardwood, straight, free from knots or twists, pointed at one end.

Installation: Drive stakes into the ground at least one third of their length, avoiding damage to the root system.

Stake sizes:

- For plants  $\geq$  2.5 m high: Three 50 x 50 x 2400 mm stakes per plant.
- For plants 1 to 2.5 m high: Two 50 x 50 x 1800 mm stakes per plant.
- For plants < 1 m high: One 38 x 38 x 1200 mm stake per plant.

#### Ties

General: Provide ties fixed securely to the stakes, one tie at half the height of the main stem, others as necessary to stabilise the plant. Attach ties loosely so as not to restrict plant growth.

Tie types:

- For plants  $\geq$  2.5 m high: Two strands of 2.5 mm galvanized wire neatly twisted together, passed through reinforced rubber or plastic hose, and installed around stake and stem in a figure of eight pattern.
- For plants < 2.5 m high: 50 mm hessian webbing stapled to the stake.

#### Trunk protection

Collar guards: 200 mm length of 100 mm diameter agricultural pipe split lengthways.

### 3.9 SEED PREPARATION

Where site conditions are not suitable for the pre-treatment and mixing of native and grass seed, this work may be done off site in conditions conducive for this purpose.

#### HOLD POINT

Process Held:	Use of seed pre-treated off site.
Submission Details:	At least 3 working days prior to delivery, submit the accompanying certificate showing the species, variety, weight and place of pre-treatment.
Release of Hold Point:	The Principal will consider the submitted documents and may inspect the seed prior to authorising the release of the Hold Point.

**Pre-treatment to Assist Germination**

Where hot water is the specified pre-treatment, place the seed in a calico bag together with camphor granules as an insect repellent at the rate of 50 g per 10 litres of water. Immerse the bag in hot water with temperature of around 90°C for a minimum period of 60 minutes and then remove from the water, drain and allow to dry. When dry, mix the treated seed with the remaining seed and broadcast when conditions are suitable.

Seed that has been pre-treated must be used within five days of pre-treatment.

Where proprietary products are used to assist germination, use as recommended by the manufacturer.

**Preparation for Hydromulching, Hydroseeding and Straw Mulching**

Storage tanks, containers and equipment to be used in hydromulching, hydroseeding and straw mulching must be clean and free of contamination from previous operations.

Table– Application Rates for Materials

Material	Rate per Hectare
<b>Hydromulching</b>	
Water	35,000 litres
Organic fertiliser: pelletised poultry manure	250 kg
Seed	See Planting Schedule
Cellulose fibre mulch:	
– Sugar cane mulch, mixed with 20% (by weight) of shredded paper	3,500 kg
– Wood fibre mulch	2,500 kg
Binder: granulated 'Guar gum'	60 kg
Biodegradable green dye	As recommended
<b>Hydroseeding</b>	
Water	20,000 litres
Organic fertiliser: pelletised poultry manure	250 kg
Seed	See Planting Schedule
Biodegradable green dye	As recommended
<b>Straw mulching</b>	
Straw	5,000 kg
Binder	
– Undiluted residual bitumen emulsion	2,500 litres
– Granulated 'Guar gum'	100 kg

Produce hydromulch / hydroseed slurry mixtures by adding the specified materials into the tank and agitate until a homogenous blend is obtained.

**Sowing Methods**

Unless otherwise shown on the Drawings, sow areas with slopes of 5 to 1 or flatter, using one of the following methods:

- dry sowing
- for small areas only, by hand.

Unless otherwise shown on the Drawings, sow areas with slopes steeper than 5 to 1 in any direction, using one of the following methods:

- hydroseeding and straw mulching
- hydromulching
- for rock face batters, hydroseeding
- for small areas only, by hand.

Stepped batters must be topsoiled as described and hydroseeded or hydromulched.

SD-163-18 Oakdale West Estate

*Landscape – Planting***WITNESS POINT**

Process Witnessed: Sowing

Submission Details: Notify the Principal, not less than 5 clear working days prior to the intended time of sowing, giving details of the area to be sown.

**3.10 DRY SOWING**

Undertake dry sowing using either:

- a tractor drawn seed drill to place seed at a depth of 5 mm
- a spreader followed immediately by a single pass with an unweighted diamond harrow.

Where practicable, tractor passes with the seed drill or harrow must follow finished surface contours. Distribute seed and fertiliser evenly over the areas to be sown at the rates specified. Apply fertiliser concurrently with the seeding operation.

Gauge the application rate of the seed mix to ensure an even distribution over the areas sown, in accordance with the nominated rates. Maintain records of measurements and calculations to determine actual distribution rates for each lot.

**Hydromulching and Hydroseeding**

Carry out hydromulching / hydroseeding within 2 days of completion of soil preparation or, if delayed by weather conditions, as soon as weather conditions permit.

Agitate continuously the slurry to maintain a uniform consistency during application.

The sprayed hydromulch layer within 48 hours of application must have a minimum thickness at any location of 5 mm when using sugar cane mulch (mixed with shredded paper), or 2 mm when using wood fibre.

**Straw Mulching**

The straw mulch must comprise the materials and application rates set out in Table R178.1.

Apply the straw mulch uniformly using a purpose-made blower unit. Incorporate the emulsion as a spray into the air stream of the mulch blower or apply it in a separate operation within 12 hours from the application of straw mulch.

The straw mulch layer within 48 hours of application must have a minimum thickness at any location of 25 mm.

**Weather Conditions for Hydroseeding, Hydromulching and Straw Mulching**

Do not apply hydroseeding, hydromulching and straw mulching:

- when winds exceed 15 km/hr
- when temperatures exceed 37°C
- where the surface is too wet
- during rain periods or when rain appears imminent.

**Signposting**

Supply and install information signs approximately 1,500 x 600 mm stating, "NATIVE PLANT REGENERATION AREA—PLEASE KEEP OFF", including the requisite posts, brackets and fittings, where shown on the Drawings or as directed by the Principal. Support each sign at a height of 1.5 metres on two 75 mm dia steel posts set in concrete 500 mm deep into the ground at a distance of 900 mm apart.

SD-163-18 Oakdale West Estate

Landscape – Planting

Property	A	B	C
	Refer detail 03-02-21		
Supplier	ANL Ph: 131458		

Refer to detail 03-02-21

#### 4.54.6 VEGETATION OF OPEN DRAINS

##### Preparation of Surface

Treat weed infestation without using herbicides.

Where shown on the Drawings or directed by the Principal, apply the following protective treatment immediately to all or part of the surface to be vegetated.

##### Lining with Organic Fibre Mesh (Jute)

Where shown on landscape drawings, lay the runs of the mesh along the direction of water flow.

Slot the upstream end of the mesh into a trench 150 mm wide by 150 mm deep and pin the mesh to the base of the trench at 200 mm centres. Backfill the trench with soil and compact by foot.

Lay the mesh taut and evenly over the soil surface without any air pockets but do not stretch it.

Overlap adjacent runs of mesh by 100 mm with the higher run lapped over the lower.

Pin the mesh along the sides of each run at 500 mm centres and along the middle of each run at 1 m centres.

End overlaps must be 150 mm wide with the higher run end lapped over the start of the lower and pinned at 200 mm centres.

Refer to detail 03-02-04 & 03-02-19

#### 4.64.7 TURFING FOR SLOPES AND OPEN DRAIN AREAS

##### Turfing for Slopes and Open Drain Areas

Place turf on slopes and open drain areas where shown on the Drawings or where directed by the Principal.

Keep the turf moist at all times during transport and site storage and lay it in its final position as early as possible after delivery. Turf must be laid within 24 hours of delivery.

Prepare the surface areas to be turfed to the desired grades and levels. Surface levels (before turfing) for areas adjacent to kerbs must finish 35mm below the top of kerb to allow for turf thickness.

Remove loose rock and any extraneous material from these areas.

For slopes with gradient 5 to 1 or flatter, lightly tyne the existing ground surface to a depth of 50mm and then install 25mm of topsoil to act as turf underlay. Rake the soil to provide an even surface for the turf.

Unroll the turf and lay them in parallel strips abutting at all ends and edges of the rolls. Spread additional topsoil to fill all joints and hollows, and where necessary, lightly roll the surface of the newly laid turf.

For open drains areas and slopes with gradients steeper than 5 to 1, tyning of the ground surface is not required. Butt runs of turf hard against each other and place the turf perpendicular to the direction of water flow. Pin turf into position at 500 mm centres.

Refer to detail 03-02-04 & 03-02-19

#### 4.74.8 COVER CROP

##### Cover Crop Schedule

Species	Application Rate (kg/ha)
Cynodon dactylon (Royal Bengal Couch) – or similar	350.0

Scape Design

Date 29 October 2020

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Coolabah Oats	7.0
Eclipse Rye	16.0
Secale cereal 'Sterile' (Sterile Rye Corn)	3.0
<i>Note: Include cover crop species in ALL revegetation mixes, , modify mixes depending upon seasonal availability</i>	
Sub-Total	2950.0

Regularly overspray the stockpiles to maintain a dense coverage of cover crop sufficient to minimise weed colonisation.

Where weed cover becomes greater than 5% of the stockpile surface, eradicate weeds and then re-seed disturbed areas with cover crop.

Seeding must not be applied between the months of May – August due to dormancy.

Refer to details 03-01-02, 03\_01-03

**4.84.9 PLANT MATERIAL**

Refer drawing L.CD.700

Refer to details 03-01-02, 03-01-03, 01-05-01, 03-02-01, 03-02-02, 03-02-03

**4.94.10 AREAS DISTURBED BY CONTRACTOR**

Restore areas outside the limits of the Works which are disturbed by you (such as areas for compounds, material storage, access and haul roads) with vegetation in accordance with the requirements of this Specification.

## 7.3 GOODMAN MAINTENANCE GUIDELINES

### Appendix 2 | Specification

system again to re-flush if blockages are apparent and re-seal tube ends

#### Commissioning

The entire system should be tuned and tested to deliver an adequate amount of water to all plants and turf. Test the system in the presence of the Landscape Architect and/or irrigation designer to facilitate the issue of a Certificate of Practical Completion.

Maintain the system for the duration of the establishment maintenance period as detailed elsewhere in the specification. Replace any faulty, broken or stolen components. Leave the system operating as if it was newly installed upon acceptance of the completed work.

#### Maintenance

##### General

Gardens, lawns and landscaped areas must be maintained to Goodman's presentation standard and condition at all times. Goodman places a heavy emphasis on a high standard of landscaping to support their market image.

Plants and shrubs should be cultivated to maintain optimal growth while individual plants that don't thrive should be replaced with healthy specimens. Plants and shrubs should be pruned appropriately to promote growth. Where necessary, all plants should be dead headed to maintain optimal appearance.

Guidelines for landscaping

Weeds should be removed at all visits while measures should be taken to discourage weed growth. Weeds must be removed from all garden beds, fence lines and surrounding areas, all paved areas and walkways, construction joints and any entrance areas. All large weeds should be removed by hand, small weeds are to be sprayed with appropriate industrial strength weed killer with blue dye additive.

A prophylactic chemical weeding program should be implemented. Goodman Building Manager must be notified and approve any application of chemical weed treatment. The contractor must specify the type of chemical weed treatment product used, where it was used and quantity used. The contractor must submit a certificate or signed documentation received from chemical weed treatment supplier confirming application of chemical treatment to Goodman Landscape Manager. Spraying is to occur during non-office hours to reduce any health hazard for occupants of the commercial offices or industrial estates.

Every effort must be made to ensure that all plants are adequately watered at all times. When irrigation is not permitted, alternative methods of watering should be discussed with the Building Manager.

A proactive approach must be adopted to ensure that appearance of the landscape as a whole is highly presentable at all times. Recommendations on new plant or shrub specimen, landscape design, modifications etc should be made to Goodman Landscape Manager where opportunities exist to enhance the appearance of the landscape generally or in specific areas.

Contractors must submit annual routine landscape maintenance program to Goodman Landscape Manager within two weeks of contract commencement date.

#### Lawn care

Lawn areas, including nature strips must be neatly mown and edged weekly in the high season (summer months), fortnightly in the low season (winter months), or weekly if required due to abnormal weather condition. All clippings must be removed from the site.

All lawns must be fertilized once a year with an approved lawn fertilizer.

#### Tree shrub and plant care

All shrubs, hedges, ground covers and trees must be trimmed into shape as required to an acceptable Goodman presentation standard. Flowering plants/shrubs should be pruned to promote optimal flowering at the appropriate times.

Excessive foliage impacting onto roads, paths, fencing and lighting must be pruned during all site visits.

Leaf litter and or all cuttings should be removed from all gardens and site each visit and disposed of at contractor's cost.

Any dead or dying plants/shrubs should be removed and replaced with same or comparable species. Goodman Landscape Manager must be consulted when large trees need to be removed and or replaced.

The contractor will maintain each plant in a healthy condition to increase the visual appeal of the gardens.

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### Appendix 2 | Specification

Remove faded leaves, fronds and flowers to encourage new growth.

The contractor will prune all plants or shrubs species as required and satisfy Goodman's presentation standard. Pruning should be carried out on a 'needs-basis' specific to each plant. Pruning should be carried out to encourage new growth that will result in a dense canopy density. No more than 30mm of new growth should be seen before pruning takes place. All plant pruning should be carried out using best horticultural techniques. No hedging of native grasses permitted at any time.

Replacement of any plant or shrub which may die, fail to thrive, or are damaged due to contractors negligence must be replaced by the contractor without cost to Goodman. The replacement plant or shrub must be of a similar size, quality and identical species or variety to the plant or shrub which has failed, unless otherwise directed by Goodman Landscape Manager

Where plants fail due to vandalism, or where plants are stolen, the cost of replacement of the plants will be met by Goodman.

#### Mulch

The contractor is required to maintain all areas of mulch cover within garden beds. Displaced mulch should be returned to the garden beds wherever possible. All area of mulch cover must be packed to a depth of 75mm. If replacement of mulch is required, the contractor must notify Goodman Landscape Manager and provide quotation for approval. Specific mulch must be approved by Goodman representative prior to installation.

Guidelines for landscaping

#### Irrigation

The irrigation system must be fully functional at all times to ensure that all plants, trees and lawns receive adequate water at optimal frequency. The system should be tested during each site visit to ensure proper operation timing is set correctly. Adjustments must be made where necessary.

It is the contractors responsibility to submit a monthly report to Goodman which includes a comprehensive report on the operational function of the system.

Goodman Landscape Manager must be notified when the system is in need of major repair. The cost of major repairs to the system can be claimed as variation to the contract price and should be invoiced separately.

When water restrictions prevent the use of the irrigation system, arrangements must be made by the contractor to provide an alternative system of watering. Under no circumstances should plant stock be allowed to perish through lack of water.

#### Herbicide / pesticide application

Apply pesticide treatment to lawn areas to eliminate weeds/pests and diseases as soon as any attack is noticed. At any given time no more than 2% may be effected by weeds/pests and diseases. Spraying must occur during non-office hours to reduce any health hazard for occupants of the commercial offices or industrial estates. Do not use pesticides near streams, ditches, wetlands, or shorelines.

#### Rubbish

All rubbish generated by landscaping maintenance activities and from garden beds must be removed from the site at each visit and deposited at an approved waste collection depot at contractor's cost.

General rubbish accumulating within the driveways, car parks etc. will be removed by the landscape contractor on each weekly visit.

#### Fertilizing

Apply slow-release fertiliser in liquid form or in pellet form to all plants as required to maintain healthy growth conditions.

Fertilising of individual trees, individual palms, garden beds containing shrubs and groundcovers, and lawns should occur as required by individual species to maintain healthy growth conditions. All garden plants are to be fertilised in March and September of every year.

Seasol or other seaweed extract type fertilises and/or Dynamic Lifter or other organic fertiliser in pelletised form should be used. Do not use soluble fertilizers near streams, ditches, wetlands, or shorelines. Do not use blood and bone. All fertiliser is to be odourless.

#### Turf topdressing

The contractor is to review the condition of lawn areas to assess the need to provide topdressing. If topdressing is required, the contractor must report to Goodman Landscape Manager for approval. Premium topdressing mix must be 80% sand and 20% soil.

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## Appendix 2 | Specification

### Repairs

Any repairs required to lawn areas should occur immediately following notification of the extent of works and approval to proceed by Goodman Landscape Manager.

### Restaking

Where trees, palms, or shrubs require staking during plant establishment, the contractor will ensure that staking remains intact and rigid for its intended purpose. Staking that has failed must be repaired immediately to ensure no plant stress from winds.

### Garden edging

The contractor is to review the condition of garden bed edging and ensure that no damage, sinking, or lifting has occurred. If any repair is required, contractor must notify Goodman Landscape Manager for approval. Contractor is to ensure that all garden edging is maintained in original condition.

### Planters

The maintenance of any planter box (especially on-slab) requires careful attention to ensure that the waterproofing element is not affected. Any work done within planter box must be by hand. Neither machinery nor tools are to be used within any planter box that may cut and damage the waterproofing elements. The contractor will replenish soil nutrients and fertilisers in each planter box on a regular basis to ensure healthy continual growth of any plant species.

### Letterboxes / directory boards

The contractor is to clean and wipe down directory boards and letter boxes at the entrance to the property and remove unwanted material (this is limited to a height accessible by ladder).

All hedges or shrubbery near directory boards must be kept trimmed, so that clear visual recognition by any emergency services can be ascertain the clear address of the site or direction to any part of the site.

### Drains

All grated stormwater drains or strip drains in all car park levels and driveways zones must be inspected monthly and cleared of accumulation of debris, leaves and soil, so that there is no hindrance or impediment of their correct operation as stormwater drains.

All grated stormwater drains or strip drains in all gardens, lawn zones and pavement areas must be inspected weekly or after storms and maintained free of and accumulation of debris, leaves and soil, so that there is no hindrance or impediment of their correct operation as stormwater drains.

Any drains grate or section of strip drains that is rusted, faulty or may constitute a hazard to the site's tenants or visitors must be reported to Goodman Landscape Manager. Recommendation and replacement cost is to be submitted to Goodman Landscape Manager for approval.

### Equipment

The contractor will supply all necessary equipment required to conduct landscape maintenance in the most efficient manner and with minimal interruption to tenants. All necessary equipment will be tested and tagged to comply with all relevant OH&S legislation and regulations.

### Supervision / communication

Contractor is to appoint one point of contact (Supervisor/Operation Manager) to represent the contractor for the term of the agreement. The nominated point of contact should provide regular supervision to the on-site staff undertaking the works. Goodman anticipates that this supervisor should attend all sites as a minimum weekly to ensure presentation standards and workmanship is within required KPI's. The supervisor will also to attend site meetings with the relevant Goodman Landscape Manager to inspect the site and review any landscape maintenance issues and or variations each month.

A works report will be required to be filled out by the contractor and sent to Goodman, including relevant information regarding the following ( Photos, Summary of works for period, works to be completed next month, safety issues, enhancement ideas, general issues). This report should be forwarded to Goodman on a monthly basis.

# Appendix M

## Sustainability Management Plan

# OAKDALE WEST - LOT 3B

## Sustainability Management Plan

### Prepared for:

Goodman Property Services (Aust.) Pty Ltd  
1-11 Hayes Road  
Rosebery NSW 2018

SLR Ref: 610.30398-R01  
Version No: v1.0  
September 2021



## PREPARED BY

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## BASIS OF REPORT

This report has been prepared by SLR Consulting Australia Pty Ltd (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Goodman Property Services (Aust.) Pty Ltd (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.

## DOCUMENT CONTROL

Reference	Date	Prepared	Checked	Authorised
610.30398-R01-v1.3	8 September 2021	Dr Neihad Al-Khalidy	Horatio Cai	Dr Neihad Al-Khalidy
610.30398-R01-v1.2	2 September 2021	Dr Neihad Al-Khalidy	Horatio Cai	Dr Neihad Al-Khalidy
610.30398-R01-v1.1	15 June 2021	Dr Neihad Al-Khalidy	Horatio Cai	Dr Neihad Al-Khalidy
610.30398-R01-v1.0	31 May 2021	Dr Neihad Al-Khalidy	Horatio Cai	Dr Neihad Al-Khalidy

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### APPENDICES

Appendix A	Energy Saving Lighting Design Recommendations
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# 1 INTRODUCTION

SLR Consulting Australia Pty Ltd (SLR) has been engaged by Goodman Property Services (Aust.) Pty Ltd to prepare a Sustainability Management Plan (SMP) for the proposed warehouse and distribution facilities, Building 3B of Oakdale West Industrial Estate (the Project).

The Oakdale West Estate Concept Proposal and Stage 1 DA is classified as State Significant Development (SSD) on the basis that it falls within the requirements of Clause 12 of Schedule 1 of State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP).

This report will form part of the Development Application to the Penrith City Council.

## 1.1 Objectives of the Study

The principal objective of this Sustainability Management Plan is to identify all potential energy savings that may be realised during the operational phase of the Project, including a description of likely energy consumption levels and options for alternative energy sources such as solar power in accordance with Council requirements.

The specific objectives of this plan are as follows:

- To encourage energy use minimisation through the implementation of energy efficiency measures;
- To promote improved environmental outcomes through energy management;
- To ensure the appropriate management of high energy consumption aspects of the Project;
- To identify energy savings procedures for overall cost reduction, greenhouse gas emission reduction and effective energy management;
- To assist in ensuring that any environmental impacts during the operational life of the development comply with Council's development consent conditions and other relevant regulatory authorities; and
- To ensure the long-term sustainability of resource use through more efficient and cost-effective energy use practices for the life of the development.

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## 2 SUSTAINABILITY MANAGEMENT GUIDELINES AND LEGISLATION

### 2.1 Building Code of Australia

The Building Code of Australia (BCA) is produced and maintained by the Australian Building Codes Board (ABCB) on behalf of the Australian Government with the aim of achieving nationally consistent, minimum necessary standards of relevant health and safety, amenity and sustainability objectives efficiently. The BCA contains mandatory technical provisions for the design and construction of BCA class buildings.

Volume 1, Section J of the BCA outlines energy efficiency provisions required for BCA class buildings (including Class 7b Warehouses and Class 5 Offices). There are 8 Deemed-to-Satisfy subsections, J1 to J8, that focus on separate aspects of energy efficiency as follows:

- J1 - Building Fabric (i.e. the ability of the roof, walls and floor to resist heat transfer)
- J2 - External Glazing (i.e. the resistance to heat flow and solar radiation of the glazing)
- J3 - Building Sealing (i.e. how well parts of a building are sealed to ensure comfortable indoor environments are efficiently maintained)
- J4 - Air Movement (i.e. the provision of air movement for free cooling, in terms of opening and breeze paths)
- J5 - Air Conditioning and Ventilation Systems (i.e. the efficiency and energy saving features of heating, ventilation and air-conditioning systems)
- J6 - Artificial Lighting and Power (i.e. power allowances for lighting and electric power saving features)
- J7 - Hot Water Supply (i.e. the efficiency and energy saving features of hot water supply)
- J8 - Access for Maintenance (i.e. access to certain energy efficiency equipment for maintenance purposes)

### 2.2 ESD Requirements

The Oakdale Site include the following ESD requirement:

- **Greenhouse Gas and Energy Efficiency** – including an assessment of the energy use on-site and all reasonable and feasible measures that would be implemented on-site to minimise the development's greenhouse gas emissions.
- **Ecologically Sustainable Development** – including a description of how the development will incorporate the principles of ecologically sustainable development in the design, construction and operation of the development.

### 3 DESCRIPTION OF THE PROJECT

Goodman Property Services (Aust) Pty Ltd is developing the Oakdale West site (DP 1269741) in Kemps Creek. This site will be comprised of industrial warehouses and office precincts, including internal roads, car parking spaces and hardstand.

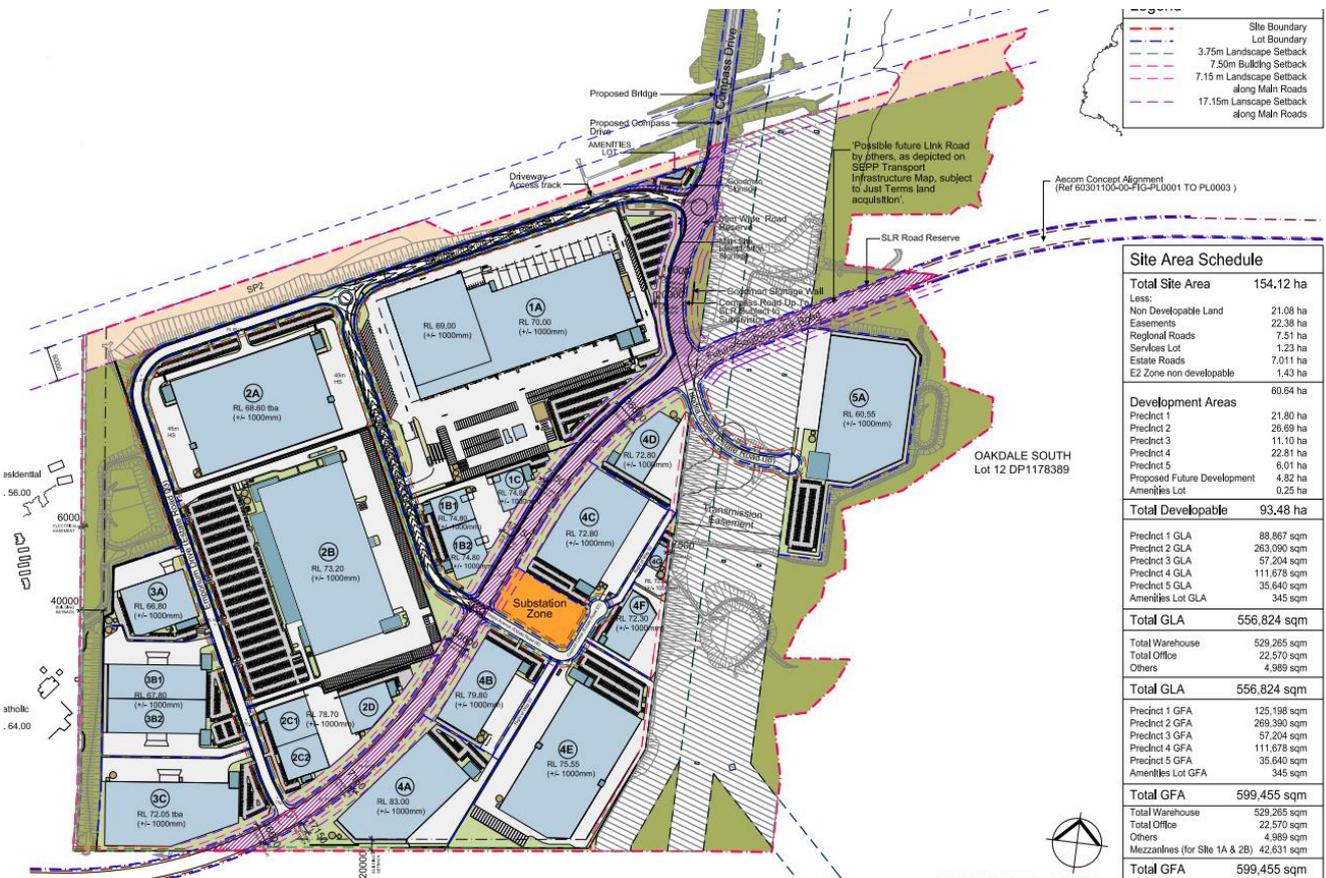
The proposed development comprises the construction of Building 3B within Precinct 3 of the Oakdale West Estate and its fit out and use as a warehouse and distribution centre with two (2) tenancies. The proposal includes ancillary office space, car and truck parking, loading bays, landscaping, solar panels and signage for each tenancy. The proposed development will facilitate warehouse and distribution uses consistent with the IN1 General Industrial zone under the State Environmental Planning Policy (Western Sydney Employment Area) 2009.

The proposal does not require clearing or supporting infrastructure as all necessary vegetation removal, infrastructure installation and other investigations were approved and have been undertaken in accordance with SSD 7348.

The overall Oakdale West Masterplan is shown in **Figure 1**.

The current study covers the sustainability management plan and greenhouse gas reduction for the proposed warehouse and distribution facilities of Precinct 3, Lot 3B (the Project).

**Figure 1 Oakdale West Estate Master Plan – MOD 7**



### 3.1 Overview of Proposed Development

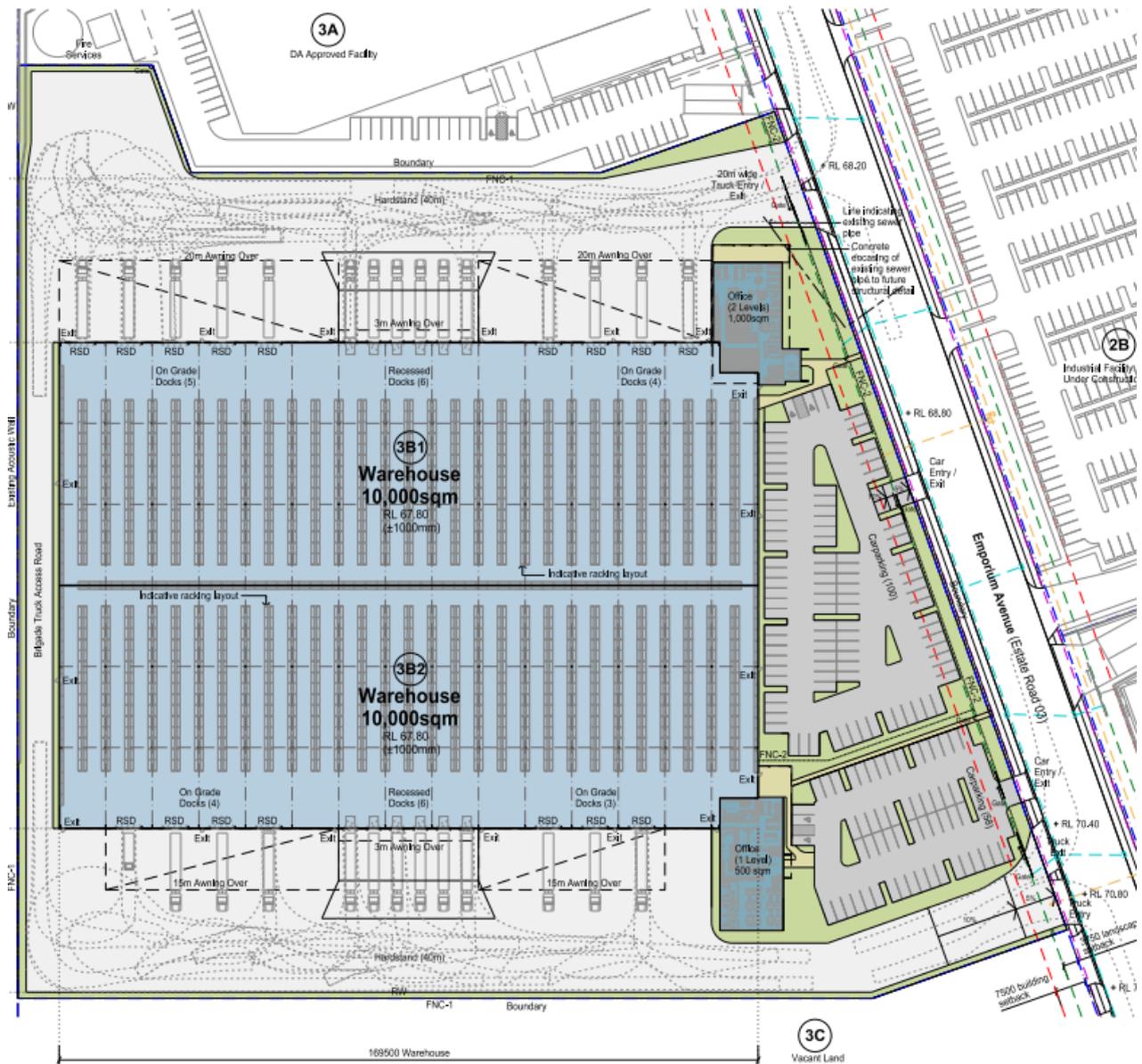
The site area comprises 46,1981 m<sup>2</sup> and the building area comprises 21,500 m<sup>2</sup>. Overall building areas are outlined in **Table 1**.

**Table 1 Building Areas**

Site Area	Lot 3B
Warehouse 3B1	10,000 m <sup>2</sup>
Warehouse 3B2	10,000 m <sup>2</sup>
Office 3B1	1,000m <sup>2</sup>
Office 3B2	5,00m <sup>2</sup>
Awning	4,215 m <sup>2</sup>
Hardstand Area	15,910 m <sup>2</sup>
Light Duty Area	4,415 m <sup>2</sup>
Car Parking 3B1	100
Car Parking 3B2	58

Further details of the Lot 3B development are shown in **Figures 2**

**Figure 2 Oakdale West Estate: Building 3B**



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## 4 OPERATIONAL ENERGY MANAGEMENT

Ineffective energy management for industrial and commercial premises can lead to unnecessary growth in greenhouse gas emissions and consumption of natural resources. Effective energy management reduces costs using energy efficiency measures and improves environmental outcomes locally, regionally and globally.

Effective energy management is achieved through the implementation of a Sustainability Management Plan (SMP) for the operational life of the Project.

### 4.1 Identified Major Energy Use Components

The major energy use components of the Project Site have been identified below based on information available within the Project Design Brief.

- Lighting (include natural and artificial lighting and shading);
- Air Conditioning; AND
- Power.

### 4.2 Energy Sources

The main source of energy for the proposed site is electricity.

## 5 SUSTAINABILITY MEASURES COMMITMENTS

### 5.1 Documentation

The documentations used in this report is listed in **Table 2**.

**Table 2 Project Documentation Sources**

Document Type	Document Number	Issue Date
Architectural Drawing	OAK 3B DA 20 (C) Drawing Set	2/06/2021
	OAK 3B DA 21 (B) Drawing Set	1/06/2021
	OAK 3B DA 22 (B) Drawing Set	1/06/2021
	OAK 3B DA 23 (B) Drawing Set	1/06/2021
	OAK 3B DA 30 (B) Drawing Set	1/06/2021
	OAK 3B DA 31 (B) Drawing Set	1/06/2021
Goodman - Industrial - Design Brief - Base Building Rev 06	Project no 190119	04/06/2019

Energy Efficiency measures have been recommended and approved for project implementation and have informed the sustainability assessment of this project – they are listed in **Table 3**.

**Table 3 ESD Assessment Summary**

Category	Objective	Proposed Target	Proposed Strategy	Commitment	Comment
<b>Design &amp; Management</b>	<ul style="list-style-type: none"> <li>Documentation of design intent and expected outcomes.</li> <li>Appropriate commissioning.</li> </ul>	<ul style="list-style-type: none"> <li>Communicate sustainability initiatives and operation to building users.</li> <li>Commissioning and building tuning required by contractors and reviewed for 12 months after completion.</li> </ul>	<ul style="list-style-type: none"> <li>Provision of Building Users Guide.</li> </ul>	✓	<ul style="list-style-type: none"> <li>SLR recommends the preparation of Building User Guide that enables building users to optimise the building’s environmental performance.</li> <li>A sub-contractor will be engaged to maintain the facility in accordance with the operations and maintenance manuals during the 12-month defects liability period.</li> </ul>
			<ul style="list-style-type: none"> <li>Investigate costs and viability of commissioning and building tuning requirements and appointing an independent commissioning agent.</li> </ul>	✓	
			<ul style="list-style-type: none"> <li>Independent consultant to perform quarterly tuning of fire, mechanical, electrical, hydraulic services.</li> </ul>	✓	
<b>Façade Performance</b>	<ul style="list-style-type: none"> <li>Optimised façade performance.</li> </ul>	<ul style="list-style-type: none"> <li>Achieve minimum performance requirements under NCC Section J1 and J2.</li> <li>Reduce heat gain through the warehouse façade.</li> </ul>	<ul style="list-style-type: none"> <li>Meet or exceed NCC Section J1 and J2 façade performance for conditioned spaces.</li> </ul>	✓	<ul style="list-style-type: none"> <li>NCC Section J report needs to be prepared by a qualified ESD consultant.</li> <li>This warehouse will comply with all the requirements specified within the report during construction stage.</li> <li>Colourbond roof sheeting which has a light colour is proposed.</li> <li>As per project NCC Section J report.</li> </ul>
			<ul style="list-style-type: none"> <li>Light coloured roofing with and appropriate insulation to reduce solar heat gain into the warehouse.</li> </ul>	✓	
			<ul style="list-style-type: none"> <li>Daylight: evenly spaced translucent roof sheeting to warehouses areas.</li> </ul>	✓	
			<ul style="list-style-type: none"> <li>Performance glazing in office spaces appropriate to the window size and orientation.</li> </ul>	✓	

Category	Objective	Proposed Target	Proposed Strategy	Commitment	Comment
<b>Social Sustainability</b>	<ul style="list-style-type: none"> <li>Consider design with due regard to occupant satisfaction in accessibility, usability, Indoor air quality and public space utility.</li> </ul>	<ul style="list-style-type: none"> <li>High level of occupant satisfaction.</li> <li>Provide external as well as internal comfort.</li> </ul>	<ul style="list-style-type: none"> <li>Flexibility of space for potential future configurations.</li> </ul>	✓	<ul style="list-style-type: none"> <li>The design will incorporate open offices, client rooms, meeting rooms, lunch room and outdoor seating area</li> <li>Low VOC paints, carpet and sealant will be used</li> <li>Refer proposed landscaping, Architectural Drawings</li> <li>Selection of endemic and low maintenance landscaping species</li> <li>Both AC and lighting control is provided to offices and warehouses.</li> </ul>
			<ul style="list-style-type: none"> <li>Use of Low VOC paints, carpets and sealants.</li> </ul>	✓	
			<ul style="list-style-type: none"> <li>Consider Landscaping and dense planting.</li> </ul>	✓	
			<ul style="list-style-type: none"> <li>Consider occupant user control eg A/C systems, glare reducing strategies, lighting etc.</li> </ul>	✓	
<b>Minimising Transport Impact</b>	<ul style="list-style-type: none"> <li>Consider location with links to public transport and employee services.</li> <li>Consider location to reduce operational transport.</li> <li>Consider the impact of industrial trucks on local traffic.</li> </ul>	<ul style="list-style-type: none"> <li>Reward drivers of fuel-efficient vehicles by providing spaces for small cars and or motorbikes.</li> <li>Provide alternatives to single-occupancy vehicles.</li> <li>Reduce operational fuel consumption through close proximity to major arterial roads.</li> <li>Reduce the impact of operational traffic on local communities.</li> </ul>	<ul style="list-style-type: none"> <li>Consider providing 10% of total parking spaces for small cars and 5% for motorbikes situated near the office entrance.</li> <li>The site is located within close proximity (&lt;5km) to both the M7 and M4 motorways.</li> <li>The roads linking the site to the motorways are predominantly used for industrial traffic, as such the traffic is unlikely to impact on local areas.</li> </ul>	<ul style="list-style-type: none"> <li>✓</li> <li>✓</li> </ul>	<ul style="list-style-type: none"> <li>Refer Architectural drawings - Spaces are provided for motorbikes parking.</li> <li>Due to the location of the site, it is considered that staff bicycle riding will be unlikely, although if staff surveys indicate a preference for cycling, consider appropriate amenities.</li> <li>Car park numbers and provision for disabled parking is provided in accordance with Consent Authority requirements.</li> </ul>

Category	Objective	Proposed Target	Proposed Strategy	Commitment	Comment
<b>Optimising IEQ</b>	<ul style="list-style-type: none"> <li>Optimise natural light to work environment.</li> <li>Optimise fresh air ventilation.</li> <li>Consider Thermal Comfort of occupants.</li> <li>Consideration of noise transference in space planning.</li> <li>Minimise use of materials that emit volatile organic compounds.</li> <li>Create a pleasant working environment.</li> </ul>	<ul style="list-style-type: none"> <li>Daylight: Daylight Factor (DF) of at least 2% at finished floor level under a uniform sky for at least 60% of the GLA.</li> <li>Thermal comfort: 95% of office areas have PMV levels between -1 and +1 for 98% of the year; Warehouse spaces include passive thermal comfort strategies.</li> <li>Finishes: 95% of all paints, adhesives &amp; sealants and all carpet and flooring to be low-VOC finishes; use low-formaldehyde wood products.</li> <li>Electric lighting levels: 95% of GLA has a lighting system that is flicker free and has a maintained illuminance of no more than 25% above those recommended in AS1680.2.4, 2.1 and 0.1.</li> <li>Reduce visual glare.</li> </ul>	<ul style="list-style-type: none"> <li>Daylight: rationalised glazing to offices; high performance glass.</li> <li>Daylight: evenly spaced translucent roof sheeting to warehouses areas.</li> <li>Thermal comfort: Office envelope and HVAC system designed to meet thermal comfort requirements;</li> <li>Provide sufficient roof and wall insulation to the air-conditioned spaces;</li> <li>Finishes: Specify and track correct finishes and wood products.</li> <li>Provide pleasant indoor and outdoor breakout spaces with sufficient daylight and plants.</li> <li>Lighting: Good light fixtures and well-designed layout.</li> <li>Ventilation: Consider increased fan and duct sizing.</li> <li>Provide sufficient shading and blinds with rationalised glazing for visual and thermal comfort.</li> </ul>	<ul style="list-style-type: none"> <li>✓</li> <li>✓</li> <li>✓</li> <li>✓</li> <li>✓</li> <li>✓</li> <li>✓</li> <li>✓</li> </ul>	<ul style="list-style-type: none"> <li>High performance glazing to all air-conditioned areas to satisfy Section J requirements</li> <li>Translucent roof sheeting is recommended.</li> <li>Refer Section 5.5 of this report for proposed set up temperatures</li> <li>Insulation as per the NCC requirements</li> <li>LED lighting and lighting controls to warehouse and offices.</li> <li>Adequate ventilation will be supplied in accordance with AS1668.</li> <li>Shown on the Architectural Drawings</li> </ul>

Minimising Energy Use	<ul style="list-style-type: none"> <li>Consider passive design to minimise energy use such as orientation, ventilation, shading and floor plate design.</li> <li>Appropriate sizing of plant and equipment in heating and cooling, lighting, control systems,</li> <li>Building management systems and renewable energy sources.</li> <li>Reduce reliance on connection to grid electricity and gas.</li> </ul>	<ul style="list-style-type: none"> <li>Target a 20% reduction in Greenhouse gas emissions.</li> <li>Energy sub-metering for all major uses greater than 100kVa; linked to monitoring system.</li> <li>High efficiency warehouse lighting and controls.</li> <li>Reduce energy for water heating.</li> <li>Integrated building management.</li> <li>Consider renewable energy generation for a portion of energy consumption and/or consider future-proofing the building for future installation.</li> <li>Reduce urban heat island effect and heat load through the roof by providing a highly reflective roof.</li> <li>Reduce office equipment load from 20W/m<sup>2</sup> to 15W/m<sup>2</sup>.</li> <li>Optimise insulation for energy and thermal comfort.</li> </ul>	<ul style="list-style-type: none"> <li>Roof Insulation, External Wall Insulations, Reduced Glazing area and associated heat loss in winter.</li> <li>Consider office air conditioning temperature set-points for an increased comfort band.</li> <li>Provide energy efficient T5 lighting, with zoning and automatic controls where reasonable.</li> <li>Consider LED lighting strategies and advanced controls.</li> <li>Consider a solar hot water system or a heat pump.</li> <li>Sub-metering: install appropriate metering; develop metering and tracking strategy to allow for self-assessment, problem solving and ongoing improvements during operations</li> <li>Use roofing material that has acceptable Solar Reflective Index</li> <li>Investigate current insulation design and determine proposed options.</li> </ul>	<ul style="list-style-type: none"> <li>✓</li> <li>✓</li> <li>✓</li> <li>✓</li> <li>✓</li> <li>✓</li> <li>✓</li> <li>✓</li> </ul>	<ul style="list-style-type: none"> <li>Shown on the Architectural Drawing</li> <li>Design brief sets the temperature - Refer Section 5.5 of this report.</li> <li>LED lighting to warehouse and offices.</li> <li>Lighting controls to warehouse and offices.</li> <li>Solar hot water or heat pump system</li> <li>Sub meters for major energy/water uses</li> <li>Colourbond roof sheeting which has a light colour is proposed.</li> <li>As per project NCC Section J report.</li> </ul>
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Category	Objective	Proposed Target	Proposed Strategy	Commitment	Comment
<b>Choosing Materials</b>	<ul style="list-style-type: none"> <li>• With consideration to energy inputs in manufacture.</li> <li>• Toxicity.</li> <li>• Consequential impacts – rain forest timbers.</li> <li>• Regional or local manufacturer employment support.</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce steel and cement in internal slab (10% reduction in embodied energy).</li> <li>• Reduce embodied energy in concrete and plasterboard elements.</li> <li>• Consider 95% of timber to be AFS or FSC certified.</li> <li>• Reduce emissions associated with insulation and refrigerant.</li> <li>• Reduce environmental impact of materials for tiling, awning.</li> </ul>	<ul style="list-style-type: none"> <li>• Jointless fibre reinforced slab.</li> <li>• Use pre-cast concrete panels with recycled content.</li> </ul>	<ul style="list-style-type: none"> <li>✓</li> <li>✓</li> </ul>	<p>To minimise the environmental impacts of materials used by encouraging the use of materials with a favourable lifecycle assessment based on the following factors:</p> <ul style="list-style-type: none"> <li>• Fate of material</li> <li>• Recycling / re-use</li> <li>• Embodied energy</li> <li>• Biodiversity</li> <li>• Human health</li> <li>• Environmental toxicity</li> <li>• Environmental responsibility.</li> </ul>

Category	Objective	Proposed Target	Proposed Strategy	Commitment	Comment
<b>Minimising Waste</b>	<ul style="list-style-type: none"> <li>By clever design.</li> <li>Contracted to builder as a requirement on site for construction waste.</li> <li>During the life of the building.</li> <li>And in dealing with building end of life options.</li> </ul>	<ul style="list-style-type: none"> <li>Reduce construction waste going to landfill by 90%.</li> <li>Reduce operational waste going to landfill.</li> <li>Consider a design that can be disassembled at the end of the building's life.</li> </ul>	<ul style="list-style-type: none"> <li>Contractor is to develop and implement a Waste Management Plan and track all waste going offsite to show that 90% of all construction waste is re-used or recycled.</li> <li>Waste storage and recycling facilities to be provided for different operational recycling streams such as paper, glass, plastics, metals, food waste etc. Consider operational waste plans and training for staff to provide incentive to reduce waste.</li> </ul>	✓	<ul style="list-style-type: none"> <li>SLR recommends more than 70% of the predicted construction waste arising from development can be re-used (on-site or at another development) or recycled off-site. Refer project Waste Management Plan.</li> <li>The following waste avoidance measures are recommended in the Waste Management Plan for the Project: <ul style="list-style-type: none"> <li>Provision of take back services to clients to reduce waste further along the supply chain.</li> </ul> </li> </ul>
				✓	
<b>Water Conservation and Reuse</b>	<ul style="list-style-type: none"> <li>Monitoring of meters to track use.</li> <li>Timely maintenance of fixtures and fittings.</li> <li>Water sensitive landscape design.</li> <li>Source potable water alternatives such as rainwater harvesting, grey and black water treatment.</li> </ul>	<ul style="list-style-type: none"> <li>Reduce potable water in internal fixtures.</li> <li>Reduce potable water for irrigation.</li> <li>Water efficient operation of appliances.</li> <li>Utilise rainwater and/or recycled water.</li> </ul>	<ul style="list-style-type: none"> <li>Water efficient sanitary taps and toilets.</li> <li>Water efficient and drought tolerant landscaping.</li> <li>Water and energy efficient dishwasher.</li> <li>Rainwater collection for toilets, irrigation and truck wash down.</li> </ul>	✓	<ul style="list-style-type: none"> <li>Low flow fixtures and fitting including taps and shower heads</li> <li>Selection of endemic and low maintenance landscaping species</li> <li>SLR recommends water efficient dishwashers</li> <li>50 kL (two 25 kL) Rainwater tanks have been proposed for rainwater harvesting and re-use for landscape irrigation and flushing of toilets.</li> </ul>
				✓	
				✓	
				✓	

Category	Objective	Proposed Target	Proposed Strategy	Commitment	Comment
<b>Land Use and Ecology Impact</b>	<ul style="list-style-type: none"> <li>Consider local biodiversity impacts of flora and fauna.</li> <li>Look to specialist advice on land in development.</li> </ul>	<ul style="list-style-type: none"> <li>Encourage biodiversity.</li> <li>Reduce light pollution from the site.</li> <li>Consider reducing impact of stormwater flows off the site into the natural watercourses including Ropes Creek adjacent to the site.</li> </ul>	<ul style="list-style-type: none"> <li>Install indigenous plating appropriate to the area and the adjacent biodiversity lots.</li> </ul>	✓	Selection of endemic and low maintenance landscaping species
			<ul style="list-style-type: none"> <li>Design external lighting to avoid emitting light into the night sky or beyond the site boundary.</li> </ul>	✓	LED lights have been proposed for all external lights to avoid emitting light
			<ul style="list-style-type: none"> <li>Consider integrated stormwater management to minimise the impact on receiving waters of flow volumes and pollution content, eg bioswales, bio retention, OSD tanks and treatment.</li> </ul>	✓	The warehouse sustainability objectives include:
			<ul style="list-style-type: none"> <li>Consider permeable concrete/paving for staff parking areas and footpaths, etc.</li> </ul>	✓	<ul style="list-style-type: none"> <li>Reduce the impact of stormwater runoff and improve quality of stormwater runoff</li> <li>Achieve best practice stormwater quality outcomes</li> <li>Incorporate water sensitive urban design principles.</li> </ul>

## 5.2 Baseline and Proposed Energy Consumption

An NCC Sections J Deem-to-Satisfy compliant building is used as the baseline building for energy consumption savings. NCC Section J provides the minimum requirement for energy efficiency and it is predicted that the proposed development will have more than 159% energy reduction - refer **Section 5.8** for the energy simulation results. The reduction has been enabled via:

- All luminaire shall be low energy LED type;
- Warehouse lighting is generally to be zonally controlled via motion sensor;
- Office lighting shall be controlled via dual technology infrared/ultrasonic sensor;
- Daylight harvesting function to office with external windows;
- Efficient air conditioning system; and
- Translucent sheets to the warehouse to receive daylight.

All building information and associated parameters are listed in the following sections of this report.

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### 5.3 Artificial Lighting

In Section J6 of the NCC, the requirement for the total lighting power load within the proposed spaces of a building is to be no greater than a maximum illumination power load, measured in Watts (W). The maximum allowable building illumination power load is based on the total illumination power load calculated for each space.

For artificial lighting, the aggregate design illumination power load must not exceed the sum of the allowances. This may be obtained by multiplying the area of each space by the maximum illumination power density (as found in Table J6.2a of the NCC 2019 Volume One). The maximum illumination density for a storage warehouse is 4 W/m<sup>2</sup> as per Table J6.2a of the NCC 2019 Volume One.

The proposed warehouses will adopt the following energy efficiency measures to reduce the lighting energy consumptions:

#### Office lighting

- LED fitting for offices.
- Occupancy sensors to low occupancy areas e.g. office, toilets and lunch room.

#### Warehouse lighting

- LED fitting for warehouse.
- Occupancy sensors to low occupancy areas.

#### Outside lighting

- LED external lighting for all outside areas.
- External lighting will be controlled via daylight sensor (photocell).

Electrical lighting is the major energy reduction component for warehouse with a large footprint.

The lighting calculation for NCC reference building is based on the maximum illumination power density specified within NCC Table J6.2A as below:

- Warehouse = 4 W/m<sup>2</sup>
- Offices = 4.5 W/m<sup>2</sup>

The electrical lighting layout of the proposed building is not provided at the time of preparing this report. It is assumed the maximum design lighting power density will be achieved as below:

- Warehouse 3.5 W/m<sup>2</sup>
- Offices 4 W/m<sup>2</sup>

Therefore, the proposed building is likely to achieve a 12% lighting energy reduction when compared with reference building. Detailed calculation is shown in **Appendix A**.

## 5.4 Mechanical Air-Conditioning

The mechanical service design is not available at this stage. Performance reverse cycle package units to offices with individual controls. As per the mechanical specification of the Tenant Base Building Specification, air conditioning to be designed to the BCA/NCC section J and other statutory authorities and applicable Australian standards.

As per the mechanical specification of the Goodman’s Tenant Base Building Specification, air conditioning to be designed to the BCA/NCC section J and other statutory authorities and applicable Australian standards.

### **Air-conditioning Temperature Control and Set point – refer Table 4**

**Table 4 AC Unit Temperature Control Range**

Space Type	Temperature Control Range (°C)
Offices	22.5±1.5°CBD

### **Air-conditioning Energy Efficiency Requirements**

2019 NCC Section J5.11 has specified the minimum energy efficiency ratios requirements for package air conditioning equipment.

**Table 5 BCA Unitary Plant Requirement**

Office Equipment	Minimum Energy Efficiency Ratio	
	NCC Requirement	Proposed System <sup>1</sup>
Cooling	2.9	4
Heating	2.9	4

Note 1: Detailed Mechanical design is not available at this stage. It is assumed that the proposed package system will achieve the performance requirements above.

When the air flow rate of a mechanical ventilation system is more than 1000L/s, the system must have a variable speed fan when its supply air quantity is capable of being varied.

Details or NCC Section J5 certification demonstrating compliance will need to be submitted with the application for a Construction Certificate

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## 5.5 Building Fabric Requirements

Parts J1 to J3 of the BCA Section J contain the requirements of the Deemed-to-Satisfy compliance of the building fabric. The purpose of this subsection is to ensure that the building fabric will provide sufficient thermal insulation to minimise heating and cooling loads placed on the building and the commensurate energy consumption HVAC systems servicing internal building spaces.

All fabrics of the proposed building shall comply with NCC Section J. A Project Section J report will need to be submitted with the application for a Construction Certificate.

## 5.6 Domestic Hot Water (DHW)

The BCA specifies the thermal efficiency for hot water systems to be at least 80%. The solar hot water reticulation system shall be provided to all faucets' fittings, equipment and apparatus within the development. Hot water will be generated from the roof mounted solar water packaged plant.

With the installation of water efficient fixture, the hot water consumption will be decreased and thus the domestic hot water usage will also decrease. If the domestic hot water usage is less than the energy required to heat to the water also decreases. Moreover, the supplement natural gas consumption will be reduced by using the proposed solar hot water system.

The energy simulation in this analysis is assumed both reference and proposed building are using same gas fired boiler for DHW. The actual energy consumption will be reduced once solar hot water or electrical heat pump is adopted for the proposed building.

## 5.7 Estimated Annual Energy Consumption

- The proposed building is likely to achieve a 12% lighting energy reduction when compared with reference building. Refer **Section 5.3**
- At least 500 kW of PV solar system has been proposed. Refer **Figure 3**
  - The proposed 500 kW PV solar system will offset 554,800 kWh/year of energy usage.
- The design of the air conditioning system for the proposed development is not progressed at this stage. SLR has previously modelled a number of warehouses for the Oakdale West site and it anticipated that the energy usage for air-conditioning and mechanical ventilation is between 25 – 35 kWh/m<sup>2</sup> for the reference building and 20 – 27 kWh/m<sup>2</sup> for the proposed building. Refer **Table 5** for energy efficiency requirements for the air conditioning system for the office component of the proposed development.

The estimated Total Annual Energy Consumption of the NCC Reference Building and the Proposed Building is summarised in **Table 6**.

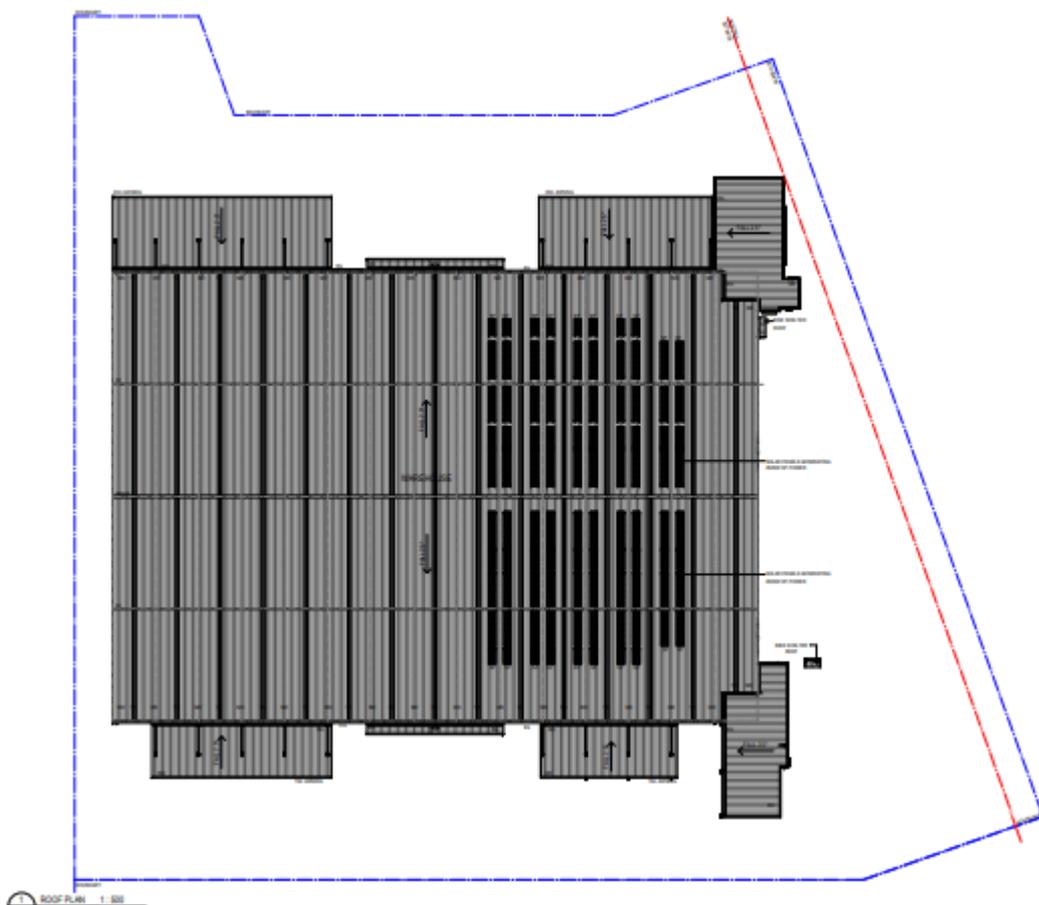
**Table 6 Comparison of Annual Energy Consumption Between the Reference and Proposed Building**

Electricity Usage	Reference Building (MWh)	Proposed Building (MWh)
Heating/Cooling/Auxiliary	45	35.25
Lighting	430.466	377.395
Equipment	assumed identical	assumed identical
DHW	assumed identical	assumed identical
PV System	-	-693.5
<b>Total</b>	<b>475.5</b>	<b>-280.8</b>

Note 1 These items are specific to a tenant’s Fitout -hence assumed to be the same for the Reference and Proposed Buildings

By implementing all energy efficiency measures described in **Section 6**, the project is predicted to achieve a 159% GHG emission reduction when compared with NCC Reference Building.

**Figure 3 Oakdale West Estate: Building 3B, Proposed PV Solar System**



## 6 POTABLE WATER CONSUMPTION

It is proposed that the Project will have a number of sustainable water-saving measures, including:

- Rainwater reuse and reticulation system – Rainwater will be harvested from the roof and reuse for irrigation and toilet flushing. The reticulation will be a separate system to the domestic cold water with domestic water top up in the event of insufficient rainfall;
- Use of water saving plumbing devices; and
- Water sensitive landscape design.

Further to above sustainable water measures, the following items will be considered during the detailed design stage:

- Water efficient sanitary taps and toilets – install higher WELS Rating sanitary fixtures such as 4 stars for water taps, urinals and toilet.
- Water and energy efficient dishwashers with minimum 4-star WELS water rating.

By installing 4 star rated toilets, urinals and taps and the proposed rainwater harvesting facility the proposed development will reduce its potable water demand by approximately 34%.

The quantities of each water fittings are calculated from the office plan drawings (Refer **Figure 4** and **Figure 5**) and listed in **Appendix B**

**Figure 4 Oakdale West Estate: Building 3B1, Office Plan**

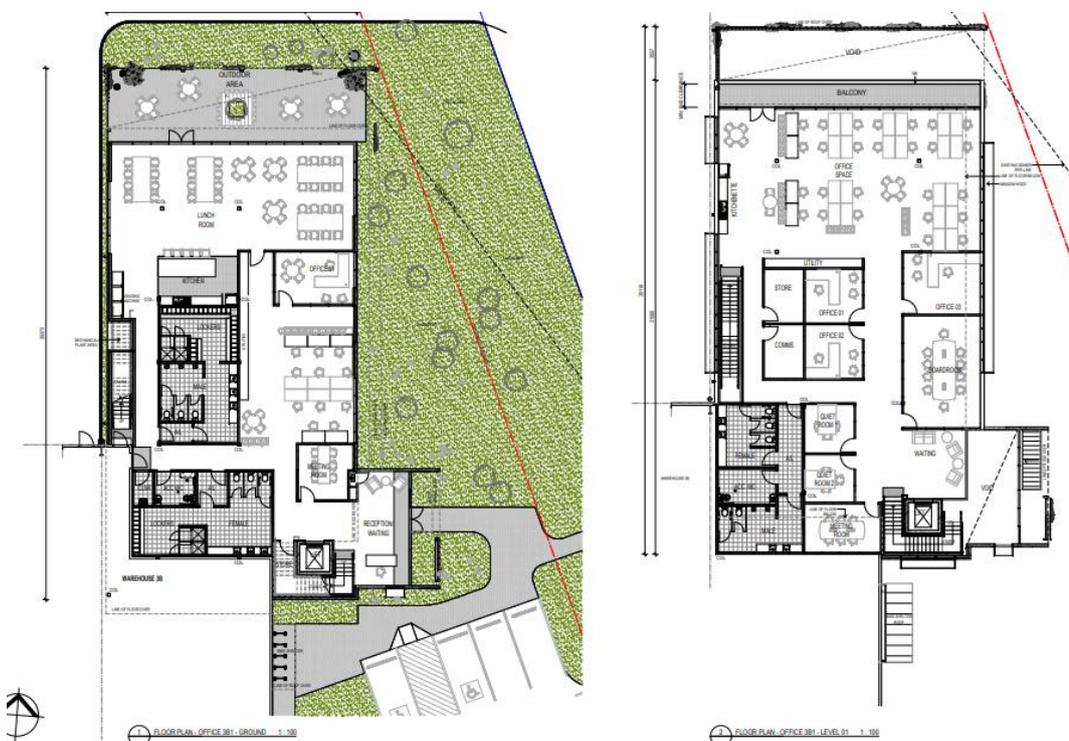


Figure 5 Oakdale West Estate: Building 3B2, Office Plan



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## 7 MONITORING AND REPORTING

All committed sustainability-related measures need to be commissioned and tuned once the project is completed, to ensure all services operate to their full potential and as designed.

As specified within the Tenant Base Building Specification, the building tuning will be provided by service contractors and overseen by an independent assessor, at least once a month within the Defects Liability Period (DLP) period to ensure that services are operating effectively and efficiently. Monthly reports to be provided to the tenant for DLP.

### 7.1 Energy Review and Audit

An energy usage review should be undertaken within the first few months of operation to ensure the Energy Management Plan is sufficient for the development's needs. A breakdown of energy usage per month at the Project Site will help to measure the development's baseline energy use and assess what appliances, equipment and processes are consuming energy.

An energy review is also necessary for the assessment of energy utilisation to further identify opportunities for improvement. Energy usage data obtained during the review process may be used to establish key performance indicators and annual energy targets for the Project.

Energy usage to be included in the review should include all purchased electricity and energy which is consumed by stationary equipment on site. Energy consumed by mobile equipment (e.g. forklifts) should also be examined as this will identify variations in warehouse operation efficiency. (Refer to 'Guidelines for Energy Savings Action Plans' (2005) (as developed by the former Department of Energy, Utilities and Sustainability) for reporting templates and further information.)

An energy audit and management review should also be undertaken on a half-yearly basis to ensure employees are following energy savings procedures correctly. Where audits show that energy savings procedures are not carried out effectively, additional employee training should be undertaken and signage and procedures re-examined.

The Energy Management Plan should be progressively improved and updated on an annual basis, or as required, to reflect changes to the Energy Management System and to promote continual improvement of energy management at the Project Site.

### 7.2 Energy Metering and Monitoring

To enable effective review of energy usage by the project, sub-metering should be implemented for all major energy consuming processes or items of equipment including sub-metering for all loads greater than 100 kVA.

Electrical equipment should be maintained to Australian Standards to ensure unnecessary energy wastage is minimised. Roof access system is proposed for third party access to roof for carry out necessary maintenance as required.

In accordance with the Goodman's Industrial Building Specification, a Building Users' Guide is to be prepared for the Project. The Building Users' Guide provides details regarding the everyday operation of a building and should include energy minimisation initiatives such as natural ventilation strategies, user comfort control, maintenance of air conditioning units and other electrical devices to ensure maximum operating efficiency, and lighting zoning strategies.

An effective Building Users' Guide will ensure that:

- Facility managers understand in detail their responsibilities for the efficient operation of the facility and any additional building tuning necessary to continuously improve energy management.
- Maintenance contractors understand how to service the particular systems to maintain reliable operations and maximum energy efficiency.
- Employees understand energy minimisation procedures and working limitations required to maintain design performance for energy efficiency.
- Future fit-out / refurbishment designers understand the design basis for the building and the systems so that these are not compromised in any changes.

### **7.3 Roles and Responsibilities**

It is the responsibility of the facility manager to routinely check energy savings procedures are undertaken correctly (i.e. lighting turned off while areas of the development are not in use). The facility manager should also ensure all monitoring and audit results are well documented and carried out as specified in the Energy Management Plan.

Senior management should also be involved in energy management planning as an indication of the organisation's commitment to the Energy Management Plan

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## 8 CONCLUSIONS

SLR Consulting Australia Pty Ltd (SLR) has been engaged by Goodman Property Services (Aust.) Pty Ltd (Goodman) to provide a Sustainability Management Plan (SMP) for the warehouse and distribution facilities of Precinct 3, Lot 3B Oakdale West Industrial Estate (the Project).

This report will form part of the Development Application to the Penrith City Council.

The principal objective of this Sustainability Management Plan is to identify all potential energy savings that may be realised during the operational phase of the project, including a description of likely energy consumption levels and options for alternative energy sources such as PV solar power.

A BCA Sections J Deem-to-Satisfy compliant building is used as the baseline building for energy consumption savings. BCA Section J provides the minimum requirement for energy efficiency and it is expected that the proposed development will operate energy efficiently via:

- 500 kW PV Solar system.
  - The proposed 500 kW PV solar system will offset 693,500 kWh/year of energy usage;
  - The estimated greenhouse gas CO<sub>2</sub> emission saving is approximately 568,670 kgCO<sub>2</sub>/annum
- Daylight controlled LED lighting for the warehouse instead of metal halide, resulting in a considerable energy reduction and reduced maintenance;
- Motion sensors to all LED lights within the warehouse, and offices;
- Roof and external wall insulation as per the NCC requirements;
- High performance glazing to all air-conditioned areas or minimum NCC requirements;
- Passive solar design for external outdoor areas;
- Efficient air conditioning system;
- Power sub-metering to enable continued review of power consumption for the offices, and warehouse;
- Selection of endemic and low maintenance landscaping species;
- 50 kL (two 25 kL) Rainwater tanks for rainwater harvesting and re-use for landscape irrigation and toilet flushing;
- Low flow fixtures and fittings including taps and shower heads;
- Low VOC paints, carpet and sealant; and
- Other measures as detailed in this report.

By implementing all energy efficiency measures described in Section 6 of this report, the project is predicted to achieve a 159% GHG emission reduction when compared with NCC Reference Building.

By installing 4-star rated toilets, urinals and taps and the proposed rainwater harvesting facility the proposed development will reduce its potable water demand by approximately 34%.

In conclusion, the relevant ESD initiatives and Energy Efficiency measures outlined in this report are incorporated into the proposed building and development details. The proposed ESD initiatives will help to achieve significant reductions in the energy required by the development both in building and operation.

Building tuning will be conducted by builder and SLR recommends that quarterly reviews of actual building energy and water consumption be carried out once the warehouses are operational to check the actual energy usage and energy savings and verify that all systems are performing at their optimum efficiency. This will provide an opportunity for the systems to be tuned to optimise time schedules to best match occupant needs and system performance while satisfying the sustainability target for the project.

# APPENDIX A

## Energy Saving Lighting Design Recommendations

BCA Lighting Requirements Oakdale West, 3B								
BCA Comply Building	BCA Requirements		Area	Operating Hrs	Lighting Control			Total Annual Energy Consumption (kWh)
	W/m2				0.9	0.6		
	Warehouse	4	20000	Monday to saturday 24 hours	Motion Detector, Daylight Sens	0.9	0.6	377395
	Offices	4.5	1500	Monday to saturday 24 hours	Motion Detector	0.9	1	53071
			21500					
							<b>Total</b>	<b>430466</b>
							<b>kWh/m2</b>	<b>20.02</b>

Proposed Lighting Requirements Oakdale West, 3B								
BCA Comply Building	BCA Requirements		Area	Operating Hrs	Lighting Control			Total Annual Energy Consumption (kWh)
	W/m2				0.9	0.6		
	Warehouse	3.5	20000	Monday to saturday 24 hours	Motion Detector, Daylight Sens	0.9	0.6	330221
	Offices	4	1500	Monday to saturday 24 hours	Motion Detector	0.9	1	47174
			21500					
							<b>Total</b>	<b>377395</b>
							<b>kWh/m2</b>	<b>17.55</b>

# APPENDIX B

## Water Saving Recommendations

### WATER SAVINGS CALCULATION OAKDALE WEST, BUILDING 3B

Table B1 - Number of fixtures

Area	Toilets	Urinal	Basins	showers
Amenities	22	9	27	8
Total	22	9	27	8
<i>Assume 70% of toilet water usage is supplied by rainwater</i>				
Fraction not supplied	0.3			

Table B2 - Results

No water saving measures		Max water usage rate <sup>1</sup>	
Toilet	Adopt 3* Average Flush Usage in Table C3	88	L/s
Tap	Adopt 3* Tap Usage in Table C3	243	L/s
Urinal	Adopt 3* Urinal Usage in Table C3	18	L/s
Water reuse measures (4*) with RWH		Max water usage rate <sup>1</sup>	
Toilet	Adopt 4* Average Flush Usage in Table C3	77	L/s
Tap	Adopt 4* Tap Usage in Table C3	202.5	L/s
Urinal	Adopt 4* Urinal Usage in Table C3	13.5	L/s
Water reuse measures (5*) with RWH		Max water usage rate <sup>1</sup>	
Toilet	Adopt 5* Average Flush Usage in Table C3	66	L/s
Tap	Adopt 5* Tap Usage in Table C3	162	L/s
Urinal	Adopt 5* Urinal Usage in Table C3	9	L/s
	3* with RWH	4* with RWH	5* with RWH
Improvement Percent	21	34	47

**Calculation Notes**

<sup>1</sup> Water usage rate per use = Number of items in Table C1 x Usage rate

<sup>2</sup> Assume total water usage is proportional to max water usage rate

<sup>3</sup> Improvement percentage = % difference between 3\* rated fixtures max water usage rate with no rainwater harvesting and design fixture max water usage rate with 70% of toilet and

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