

# PRELIMINARY CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

**Brookvale Oval Redevelopment**

**Prepared for:**

Urbis  
Angel Place  
123 Pitt Street  
Sydney NSW  
2000.

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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 Urbis (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.

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## DOCUMENT CONTROL

Reference	Date	Prepared	Checked	Authorised
630.12842-R01-v1.0	15 October 2019	Sam McDonald	Renae Gifford	

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# 1 Background

## 1.1 Development Overview

Manly Warringah Sea Eagles National Rugby League Club has engaged APP Corporation to project manage an upgrade of the Brookvale Oval which includes a proposed grandstand and centre of excellence at the northern end of the site which will utilise existing site access. The upgrade will also include an additional 10 parking spaces in addition to the existing parking arrangements on the western side of the stand.

The project involves a Centre of Excellence, a state-of-the-art facility to be used by professional sportsmen and women in conjunction with the community, and 3,000 covered seats to deliver an improved experience for spectators attending the site. The project will support the operations of the Manly Warringah Sea Eagles (MWSE) and ensure its viability into the future. The Project represents a significant investment into rugby league in the region, and is being jointly funded by the Federal Government, New South Wales State Government, and the MWSE. Once completed, the Project will:

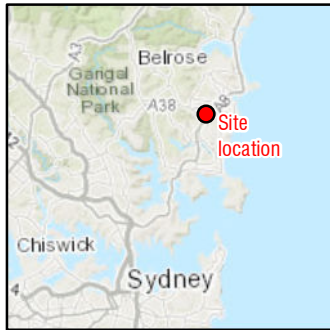
- Consolidate the MWSE training and administration bases at one location;
- Provide improved training facilities for all players (from community to elite levels) to develop their skills as well as for professional players to have access to high performance training facilities;
- Provide spectators with additional covered seating that delivers the highest quality viewing and entertainment experience possible at MWSE home games;
- The proposed Centre of Excellence will have a footprint of approximately 1,800 square metres, and span over two levels; and
- A cantilevered roof will extend over the seating area.

SLR Consulting Pty Ltd (SLR) has been engaged by Urbis, on behalf of APP Corporation, to prepare a preliminary Construction Environmental Management Plan (CEMP) for the project.

## 1.2 Location

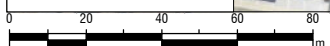
The subject site is located on Pittwater Road, Brookvale and is legally described as Lot 1 DP 784268, Lot 1 on DP 114027, Lot B on DP966128, and Lot 6 on DB 785409 (refer to **Figure 1**). The subject site is surrounded by a mix of commercial and residential properties, as well as St Augustine's College Sydney to the subject site's immediate west and Brookvale Public School to the south west.

The subject site currently includes an existing carpark, some landscaped areas located along the site's western boundary with Alfred Road and a mix of paved and landscaped areas along the subject site's northern boundary with Brookvale Northern park.



**LEGEND**

Site boundary



Scale: 1:2,000  
GDA 1994 MGA Zone 56



04-Sep-2019  
630.12842

Source: Nearmap (September 2019)

Sheet Size : A4



PH: 02 4037 3200

**Site Location**

**FIGURE 1**

## 1.3 Construction Environmental Management Plan

### 1.3.1 Objectives

The objective of this CEMP is to assist as a guide to implement the following actions taking into consideration this CEMP is issued pre-consent:

- Establish the framework for managing and mitigating the potential for adverse environmental impacts as a result of the construction of the development; and
- Assist to establish the development in a manner that avoids (where possible) or minimises impact to the surrounding environment and populace.

This CEMP has been prepared in consideration of the *Guideline for the Preparation of Environmental Management Plans* (Department of Infrastructure, Planning and Natural Resources 2004).

### 1.3.2 Construction Activities and Timing

Construction at the development is proposed to commence following approval of the Development Consent. Construction hours at the Development will be in accordance with the Development Consent once issued.

**Table 1** provides an overview of the construction activities and timeframe for the works.

**Table 1 Construction Activities and Timing**

Activity	Timeframe
To be completed post DA consent prior to construction	

## 1.4 Construction Site Access

The following assumptions have been made regarding site access as detailed in **Section 3**:

- All construction vehicles will access the site in a forward direction;
- Details of parking arrangements, site access locations will be included in Site Induction process; and
- The authorised site access and egress route will be followed.

Note: a detailed construction site access route will be completed post DA consent, prior to construction.

## 1.5 Construction Contact Details

**Table 2** lists the key contacts during construction of the development; which will be confirmed once all relevant contractors are engaged.

**Table 2 Construction Contact List**

Company (Position)	Name	Phone Number

## 2 Environmental Management Framework

### 2.1 Roles and Responsibilities

The key contractor personnel responsible for environmental management during construction of Brookvale Oval Redevelopment are listed in **Table 3**.

**Table 3 Personnel Responsible for Environmental Management**

Role	Responsibilities
Project Manager	<ul style="list-style-type: none"> <li>• Overall responsibility for environmental management and compliance with the Development Consent and relevant legislation;</li> <li>• Coordinate environmental inspections, reporting and authority liaisons;</li> <li>• Record, notify, investigate and respond to any complaints and/or enquiries and, where necessary, develop and implement corrective actions;</li> <li>• Record, notify, investigate and respond to any environmental incidents and, where necessary, develop and implement corrective actions;</li> <li>• Oversee the implementation of this CEMP and provide adequate resources to enable implementation of this CEMP;</li> <li>• Provide adequate environmental inductions/training to employees and contractors regarding their requirements under this CEMP; and</li> <li>• Report on the performance of the CEMP to senior management for review and as a basis for system improvement.</li> </ul>



Role	Responsibilities
Site Manager	<ul style="list-style-type: none"> <li>• Ensure the legislative and corporate safety, health and environment management measures and controls are implemented and maintained;</li> <li>• Participate in risk and hazard identification and control;</li> <li>• Participate in incident investigations and management;</li> <li>• Participate in workplace inspections; and</li> <li>• Direct reasonable steps be taken to avoid or minimise any unintended or adverse environmental impacts, and, failing the effectiveness of such steps, direct that the relevant actions cease immediately should an adverse impact on the environment be likely to occur.</li> </ul>
All employees and contractors	<ul style="list-style-type: none"> <li>• Ensure familiarity, implementation and compliance with this CEMP and appended management plans;</li> <li>• Support commitment to sustainability, 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 Site Management without delay; and</li> <li>• Report any inappropriate construction practices and/or environmental management practices to Site Management without delay.</li> </ul>

## 2.2 Project Approval

The development will be constructed in accordance with the Development Consent once obtained.

## 2.3 Community Consultation and Enquiries

The proponent will undertake regular community consultation which includes:

- Regular resident updates i.e. a letterbox drop of information to targeted residents; and
- Ongoing communication of the project contact details for complaints and enquiries including site signage, website and on hard copy material.

## 2.4 Inductions and Environmental Training

The Project Manager will ensure that all employees and contractors involved in the construction of the development are appropriately inducted and trained prior to commencing work on site. Training in relation to environmental responsibilities and implementation of this CEMP will take place initially through the site induction and then on an ongoing basis through “toolbox talks” (or similar).

The topics to be covered during the induction and toolbox talks include:

- General site maintenance and management expectations and requirements;
- Familiarisation with site environmental controls;
- The location of environmentally sensitive areas at the development site;
- Hazard identification;
- The environmental management commitments and responsibilities in this CEMP;
- Waste avoidance and management strategies;
- Appropriate response and management of environmental incidents (for example, a chemical spill) in accordance with the protocol in **Section 2.5**; and
- Appropriate response and management of complaints received from the public, government agencies or other stakeholders in accordance with the protocol in **Section 2.6**.

Records of all training undertaken will be recorded and maintained in an Environmental Training Register to maintain consistency and for audit purposes.

## 2.5 Environmental Incidents

For the purposes of this CEMP, an “environmental incident” is described as any event that causes or has the potential to cause material harm to the environment. The incident register will record details of all accidents, incidents, and potential incidents with actual or potential significant off-site impacts on people or the biophysical environment, which is outlined in **Section 2.5.5**.

### 2.5.1 Performance Objective

To ensure that any environmental incident caused by or relating to the construction of the development effectively responded to, and any resulting adverse environment and/or human health impact is promptly prevented or effectively managed.

### 2.5.2 Responsibility

The Project Manager is responsible for ensuring that the appropriate management response and handling procedures are instigated and carried through in the event of an environmental incident. All employees and contractors are to:

- Notify the Project Manager of any hazard or potential hazard that may result in an environmental incident, regardless of the nature or scale.;
- Take immediate action to notify the Project Manager of any environmental incident; 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.

The induction and toolbox talks outlined in **Section 2.4** should be used to ensure all site employees and contractors are aware of and understand their obligations for incident response.

### 2.5.3 Notification Requirements

Notification responsibilities for incidents that have caused or threatened to cause material harm to the environment are detailed in Section 148 of the *Protection of the Environment Operations Act 1997* (POEO Act).

Any notification requirements or groups to be notified will be completed post DA consent, prior to construction.

In summary, notification requirements for the project are broadly categorised as:

#### Duty of an employee or any person undertaking an activity

Any person engaged as an employee or undertaking an activity at the development, immediately after becoming aware of any potential incident (even if outside of normal business hours), notify the Project Manager of the incident and all relevant information about it. The Project Manager will be available 24 hours a day, seven days a week and have the authority to stop or direct works.

#### Duty of an employer or occupier of the premises to notify

The employer or occupier of the premises (in this case, the Project Manager) on which the incident occurred, who is notified (or otherwise becomes aware of) of the incident, must immediately notify the relevant authorities about the incident and provide all relevant information.

Under the POEO Act, “relevant authority” means the following:

- The appropriate regulatory authority/first response agency (where relevant 000 / NSW Police / Ambulance / Fire & Rescue);
- The Environment Protection Authority (EPA) (if they are the appropriate regulatory authority);
- The Local Council (i.e. Northern Beaches Council);
- Public Health Unit;
- SafeWork NSW; and
- Fire and Rescue NSW (if not notified under first response).

**Table 4** lists the contact details for these authorities. The person reporting the pollution incident should 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 4 Regulatory Authority Contact Details for Environmental Incidents**

Regulatory Authority / Stakeholder	Key Contact	Contact Details
<b>Department of Planning Industry and Environment (DPIE)</b>	Compliance unit	1300 305 695 Email: <a href="mailto:compliance@planning.nsw.gov.au">compliance@planning.nsw.gov.au</a>
<b>Environment Protection Authority (EPA)</b>	Environment Line	131 555 Email: <a href="mailto:info@environment.nsw.gov.au">info@environment.nsw.gov.au</a>
	Head office (Sydney)	02 9995 5000
<b>Northern Beaches Council</b>	Main switchboard	1300 434 434 Email: <a href="mailto:council@northernbeaches.nsw.gov.au">council@northernbeaches.nsw.gov.au</a>
<b>NSW Health</b>	NSW Ministry of Health (Sydney)	02 9391 9000
<b>SafeWork NSW</b>	Incident Notification Hotline	131 050 Select Option 2 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	131 444
	NSW Fire and Rescue	02 9265 2999
	NSW Ambulance Service	-
		In case of emergency 000
<b>Water NSW</b>	Incident Notification Number	1800 061 069

### 2.5.4 Handling Procedure

Upon becoming aware of an environmental incident, the procedure outlined below must be followed.

#### 1. Preventative Action

Where possible and safe to do so, immediate action should be taken to prevent, stop, contain and/or minimise the environmental impact of the incident.

In the unlikely event that an incident requires the evacuation of the site, actions will be completed in accordance with evacuation procedures. All employees and contractors are to be made aware of the location of emergency assembly areas through site inductions, signage and regular toolbox talks.

#### 2. Assistance

If adequate internal resources are not available and the incident threatens public health, property or the environment, it is essential that Fire and Rescue NSW be contacted by telephoning “000” for emergency assistance.

Contacting Fire and Rescue NSW does not negate the notification requirements in **Section 2.5.3**

### 3. Notify

Under the provisions of the POEO Act, there is a duty to notify any incident that has caused or threatens to cause material harm to the environment and all relevant information about the incident. The specific duties to notify are outlined above in **Section 2.5.3**

In the event of a serious incident or emergency, it is more than likely that Fire and Rescue NSW will take control and manage the required investigation and remedial activities. Any instructions issued must be strictly adhered to.

### 4. Investigate

Undertake immediate investigative work to determine the cause of the emergency.

### 5. Remedial Action

Undertake appropriate remedial action to address the cause of the incident or emergency and mitigate any further environmental impact. In some instances, outside resources such as specialist contractors / consultants may be required.

### 6. Record

It is imperative that an honest assessment of the situation is carried out and documented in order to minimise the potential for similar events in the future. On this basis, every environmental incident is to be recorded in an *Incident and Hazard Report Form*, which attached as **Appendix A**. A copy of the completed report should be maintained for at least four years.

### 7. Preventative Action

Once the incident or emergency has been suitably handled, appropriate measures will be identified and implemented to negate the possibility of re-occurrence.

#### 2.5.5 Incident Register

A register will be maintained for the Development. The register should contain the following:

- A record of all accidents, incidents and potential incidents with actual or potential significant off-site impacts on people or the biophysical environment;
- A copy of the environmental incident notification requirements and complaints handling procedure and register contained above in **Section 2.5.4** and **2.5.5**;
- Site evacuation procedures;
- A separate reference sheet containing the contact details for Project Manager and the contact details for the regulatory authorities listed above in **Table 5**;
- Blank hard copies of the *Incident and Hazard Report Form*; and
- Copies of all completed *Incident and Hazard Report Forms*, which are to be maintained on-site for at least four years after the event to which they relate.

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## 2.6 Environmental Complaints

### 2.6.1 Performance Objective

To ensure that all environmental complaints in relation to the construction of the development are promptly and effectively received, handled and addressed.

### 2.6.2 Responsibility

The Project Manager is responsible for ensuring that the appropriate management response and handling procedures are instigated and carried through in the event of an environmental complaint. The induction and toolbox talks outlined in **Section 2.4** should be used to ensure all site employees and contractors are aware of and understand their obligations for incident response.

All employees and contractors who take receipt of a complaint, either verbal or written, are to immediately notify the Project Manager.

### 2.6.3 Handling Procedure

Upon becoming aware of a complaint, the protocol outlined below must be followed.

#### Receive

In the normal course of events, the first contact for complaints will usually be made in person or by telephone/email to the relevant contractor. Should the relevant contractor's staff directly receive a verbal complaint, a formal written *Complaint Form* (see **Appendix B**) will be requested.

The information captured in the *Complaint Form* will include:

- i) Date and time of the contact or complaint;
- ii) Means by which the contact or complaint was made (telephone, mail or email);
- iii) Any personal details of the individual who provided the information or complaint, or if no details were provided, a note to that effect;
- iv) The nature of the comment or complaint;
- v) Record of operational and meteorological condition contributing to the comment or complaint;
- vi) Any action(s) taken in relation to the comment or complaint; including any follow-up contact with the individual who provided the information or complaint; and
- vii) If no action was taken in relation to the comment or complaint, the reason(s) why no action was taken.

All staff members (employees and contractors) who take receipt of a complaint, either verbal or written, are to immediately notify the Project Manager. The Project Manager will be available 24 hours a day, seven days a week and have the authority to stop or direct works. All relevant contact details are available in **Table 5**.

## Investigate

A field investigation should be initiated in an attempt to establish the legitimacy of the complaint and the cause of the problem. Any monitoring information and/or records at and around the time of the complaint should be reviewed for any abnormality or incident that may have resulted in the complaint.

If the complaint is due to an incident, the notification requirements and handling procedures outlined in **Section 2.5.3 and 2.5.4** respectively should be followed.

## Remedial Action

Once the legitimacy and cause of the complaint has been established, every possible effort must be made to undertake appropriate remedial action(s) to fix the cause of the complaint and mitigate any further impact.

## Inform

The investigative work and remedial action should be reported back to the complainant and, if necessary, the relevant authorities.

## Record

It is imperative that an honest assessment of the situation is carried out and documented in order to minimise the potential for similar complaints in the future. On this basis, every complaint received is to be recorded in the *Complaint Form*. A copy of the completed *Complaint Form* should be maintained for at least four years. The *Complaint Form* must also be recorded in the Complaints Register as per **Section 2.6.4**.

## Preventative Action

Once the complaint has been suitably handled, appropriate measures should be identified and implemented to negate the possibility of re-occurrence.

### 2.6.4 Complaints Register

A Complaints Register is to be maintained for the development. The Register should contain the following:

- viii) A copy of the environmental complaint handling procedure contained in **Section 2.6.3**;
- ix) A separate reference sheet containing the contact details listed above in **Table 5**;
- x) Blank hard copies of the *Complaint Form*; and
- xi) Copies of all completed *Complaint Forms*, which are to be maintained on-site for at least four years after the event to which they relate.

### 3 Preliminary Environmental Management Measures

Provided in **Table 5** are preliminary environmental management measures which are to be implemented during the construction of the Brookvale Oval Redevelopment project. These measures to be reviewed and amended as required once development approval for the project is received.

**Table 5 Preliminary Environmental Management Measures**

Environmental Management Control	Person Responsible	Timing / Frequency
<b>General</b>		
All licences, permits and approvals will be obtained and kept up-to-date as required throughout the life of the development. A copy of the development consent and all relevant environmental approvals will be available on the site at all times during the project.	Management	Ongoing
Construction activities will be undertaken within the hours specified in the development approval.		
All external lighting will be mounted, screened, 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, and be in general accordance with the latest version of <i>AS 4282 – 1997 Control of the Obtrusive Effects of Outdoor Lighting</i> .		
The following will be made available for community complaints and enquiries: a) a telephone number; b) a postal address; and c) an email address. The telephone number, the postal address and the email address will be displayed on a sign near the entrance to the site, in a position that is clearly visible to the public, and which clearly indicates the purposes of the sign.	Management/ Contractors	Prior to commencing construction and ongoing
All complaints received will be recorded in an up-to-date Complaints Register. The Complaints Register will be made available for inspection upon request of authorised persons.	Management	Ongoing
The Council will be notified of any incident with actual or potential significant off-site impacts on people or the biophysical environment as soon as practicable after the occurrence of the incident. Written details of the incident will be provided to the Council within seven days of the date on which the incident occurred.		
A register of accidents, incidents and potential incidents with actual or potential significant off-Site impacts on people or the biophysical environment will be maintained. The register will be made available for inspection at any time by the independent qualified person or team conducting the Environmental Audit and/or the Secretary.		



Environmental Management Control	Person Responsible	Timing / Frequency
The cause or impact of any incident, as it relates to this approval, will be addressed as required by the Council.	Council	As required
The incidents and complaints management strategies contained within Section 2.5 and 2.6 will be implemented to ensure that any incidents and/or complaints relating to the construction activities are promptly and effectively addressed.	Management/ Contractors	Ongoing
Construction employees and contractors will be suitably inducted and trained prior to commencing any work on site.		Prior to commencing construction and ongoing
<b>Air Quality</b>		
All trucks entering or leaving the site with loads will have their loads covered.	Management/ Contractor / Employees	Ongoing
No offensive odours will be emitted from the site.		
The project will be constructed and maintained in a manner that minimises or prevents the emission of dust from the site including windblown and traffic generated dust.	Management/ Contractor	
All activities will be undertaken with the objective of preventing visible emissions of dust beyond the boundary of the site. Should such visible dust emissions occur at any time, practicable dust mitigation measures will be implemented.	Management/ Contractor / Employees	
All haul roads will be managed, used and maintained to prevent dust emissions.		
A 25 km/h speed limit will be imposed at Precinct E during construction to reduce dust emissions.	Management	During preparation and construction of the site
Continuous ambient dust concentrations (PM <sub>10</sub> ) will be monitored at the two appropriate on-site locations. Results of dust monitoring will be recorded in µgm <sup>-3</sup> .	Management/ Contractor	From the commencement of soil disturbing works on the site until all large exposed areas have either been landscaped or sealed
The Stakeholder Communications Plan will be implemented for the duration of construction to manage stakeholder dust concerns.	Management	Prior to commencing construction and ongoing
All dust and air quality complaints will be recorded. Identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.	Management	As required
Ensure the complaints log is available to regulatory authorities when requested.		
Inspections and compliance checks will be undertaken to confirm compliance with all requirements of the CDMP.		Weekly
Inspection frequencies will be increased when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.		As required

Environmental Management Control	Person Responsible	Timing / Frequency
The site layout will be planned so that machinery and dust causing activities are located away from receptors.	Management/ Contractor	Prior to commencing construction and ongoing
Solid screens or barriers will be erected around dusty activities or the site boundary that they are at least as high as any stockpiles on site.		During dusty activities
Specific operations will be fully enclosed where there is a high potential for dust production and the site is active for an extensive period.		Where feasible
The generation of site runoff of water and/or mud will be avoided.		Ongoing
Site fencing, barriers and scaffolding will be kept clean by using wet methods.		
Materials that have a potential to produce dust will be removed from site as soon as possible. If the materials are being re-used on site, then they will be covered.		
All stockpiles (if any) will be covered, seeded or fenced to prevent wind erosion.		
All on-road vehicles will comply with relevant vehicle emission standards.		
Stationary trucks will switch off engines if idling time on-site exceeds two minutes.		
Using the local road network will be avoided during peak traffic periods, where possible.		
The use of diesel or petrol powered generators will be avoided and mains electricity or battery powered equipment will be used, where practicable.		
Truck queuing and unnecessary trips will be minimised through logistical planning.		
Cutting, grinding or sawing equipment will be fitted with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.	Management/ Contractor	
Adequate water supply will be provided for effective dust/particulate matter suppression/mitigation. Non-potable water will be used where possible and appropriate.		
Equipment will be readily available on site to clean any dry spillages.		
No waste materials will be burned on site.		
Only the minimum area necessary will be excavated at any one time.		
Excavation works and vehicle loading/unloading will be carried out when weather conditions are favourable (i.e. receptors are upwind from the works).		

Environmental Management Control	Person Responsible	Timing / Frequency
Rehabilitation of disturbed areas will be undertaken as soon as practicable.		
If unanticipated strong odours or significant dust emissions are encountered on site, related work will be stopped and the Project Environmental Coordinator (or equivalent role) will be notified.		
Sand and other aggregates will be stored in bunded areas and will not allowed to dry out, unless this is required for a particular process, in which case appropriate additional control measures will be in place.		
Water-assisted dust sweepers will be used on the access and local roads to remove any material tracked out of the site.		
Additional water sprayers will be used during prolonged dust events.		
Additional water sprayers will be used during prolonged dust events.		
Dust generating sources will be relocated or modified during prolonged dust events.		
Dust generating activities will be halted during prolonged dust events. Such activities will be resumed when conditions have improved.		
<b>Noise</b>		
Noise emissions from plant and equipment operated on the site shall be minimised by installing and maintaining, wherever practicable, efficient silencers, low noise mufflers (residential standard) and by replacing reversing alarms with alternative non-tonal or silent measures, such as quackers or flashing lights (subject to occupational health and safety requirements).	Management/ Contractor	Prior to commencing construction and ongoing
Less intensive noise and vibration construction techniques will be used, where possible, to break rock and saw concrete.		Ongoing
Power tools will use mains power rather than generators.		
All works will be completed during standard daytime construction hours in accordance with <b>Section 1.3.3</b> .	Management / Contractors / Employees	Ongoing
Truck routes to site will be limited to major roads.	Management/ Contractors	
Respite offers will be considered where high noise and vibration generating activities are near receivers. As a guide, work will be carried out in continuous blocks that do not exceed three hours, with a minimum respite period of one hour between each block.		
Affected community members will be consulted with to determine the need for respite periods.	Management	

Environmental Management Control	Person Responsible	Timing / Frequency
Site entry and exit points to be located as far as possible from sensitive receivers, where possible.		
Compounds and worksites will be designed to promote one-way traffic and minimise the need for vehicle reversing.		
Work compounds, parking areas, equipment and material stockpiles will be located far away from noise-sensitive locations.	Management/ Contractors	
Training will be provided to all personnel on noise and vibration requirements for the project. Inductions and toolbox talks will be used to inform personnel of the location and sensitivity of surrounding receivers.	Management	Prior to commencing construction
Noisy plant or processes will be replaced by less noisy alternatives e.g. piling. Screwed piles generate less noise than impact-driven or percussive piling methods which will be avoided if possible.	Management / Contractors	Ongoing
Using noisy plant simultaneously and close together will be avoided.	Management / Contractors / Employees	
Plant and equipment will be operated in the quietest and most efficient way, including not idling vehicles or equipment unnecessarily.		
The distance between noisy equipment and the nearest receivers will be maximised, wherever possible.	Management/ Contractors	
Noisy equipment will: <ul style="list-style-type: none"> <li>• Be sited behind structures that act as barriers;</li> <li>• Located at the greatest distance from the noise-sensitive area; and/or</li> <li>• Orientated away from any sensitive areas.</li> </ul>		
Regular and effective maintenance of noise generating equipment will be undertaken, including checking hatches/enclosures regularly to ensure that seals are in good condition and doors close properly against seals.		Ongoing
Dropping materials from a height will be avoided.	Management / Contractors / Employees	
Dampened 'city' rock breakers/jackhammers will be utilised, where possible.	Management/ Contractors	
Noisy plant working simultaneously close together will be avoided.		
Loading and unloading will be carried out away from noise sensitive areas.	Management / Contractors / Employees	
Trucks will not queue outside residential properties. Truck drivers will avoid compression braking as far as practicable.	Management/ Contractors	

Environmental Management Control	Person Responsible	Timing / Frequency
Trucks will be fully loaded during each trip to ensure truck movements are kept to a minimum.		
Notifications should be provided to the affected community where high impacts are anticipated or where out of hours works are required.		Five days prior to undertaking works
Where complaints are received, the work practices will be reviewed, and feasible/reasonable mitigation measures implemented to minimise any further impacts.		Following receipt of complaint
Noise and/or vibration monitoring may be required in response to any complaints received to verify that levels are not substantially above the predicted levels.		Prior to commencing construction
Where works are required within the safe working distances, vibration intensive activities must be kept to a minimum.		Prior to commencing and following completion of construction
Vibratory compactors will not be used closer than 30 m from residential buildings unless vibration monitoring confirms compliance with the vibration criteria.		Ongoing
<b>Traffic and Transport</b>		
A 25 km/h speed limit will be imposed during construction on site.	Management	During preparation and construction of the site.
All contractors and staff will be required to comply with on-site traffic requirements.		Ongoing
On-site parking and lay-down areas will be clearly delineated and communicated to staff and contractors.		Prior to commencing construction
Details of parking arrangements, site access locations will be included in Site Induction process.		During inductions
All necessary works will be undertaken within the Construction area. The on-site parking will be appropriately marked to better delineate the laydown areas.		Ongoing
Signage and appropriate speed limits within the site will be implemented where applicable.		
If roads need to be closed, relevant approvals will be obtained, and traffic controllers will be utilised where required.		
In the event that lane closures are required, then appropriate Traffic Control Plans will be prepared (and approved) prior to implementation.		As required
No obstruction of public or internal roads by any materials / vehicles without obtaining the necessary approvals. All construction vehicles will be parked within the Precinct at all times.	Management / Contractors / Employees	Ongoing

Environmental Management Control	Person Responsible	Timing / Frequency	
Vehicle movements/deliveries utilising heavy vehicles will be undertaken within approved construction hours and where possible, outside of peak traffic times (i.e. 8:00 am to 9:00 am and 5:00 pm to 6:00 pm).	Management / Contractors		
All deliveries and materials handling will occur on-site at all times.	Management / Contractors / Employees		
No on-street Work Zones are permitted on public roads / carriageways.	Management		
All construction vehicles will access the site in a forward direction.	Management / Contractors / Employees		
Drivers will be responsible and accountable for their actions when operating a company vehicle or driving for the purposes of work.	Drivers		
All drivers will have a current driver licence for the class of vehicle they are driving, and this licence is to be carried at all times.	Drivers / Management		
All traffic and road legislation will be complied with when driving.	Drivers		
The oil, tyre pressures, radiator and battery levels of all company vehicles will be checked.	Drivers/ Management		
All drivers will obey the weight, length and height restrictions imposed by the National Vehicle Regulator, and other Government agencies.			
No tracked vehicles will be driven on a paved road.	Drivers		
Vehicle defects will be reported to management.			
The authorised site access and egress route will be followed.			Prior to next vehicle use
			Ongoing
Pre-commencement checks will be undertaken for all new traffic related plant arriving on-site.	Management		Prior to first use
Prestart inspections will be completed for all traffic related plant and equipment currently on-site.	Drivers / Management		Daily
All construction plant will be fitted with a flashing light, fire extinguisher and non-tonal reversing alarm (or other safe and silent reversing systems that meet WH&S requirements).	Management	Ongoing	
All operators onsite will have a current verification of competency (VOC) for their current driver's licence of the appropriate class.			
All maintenance requirements will be completed.			

Environmental Management Control	Person Responsible	Timing / Frequency	
<p>Appropriate driver training or re-training will be arranged (where required), including:</p> <ul style="list-style-type: none"> <li>Operator assessment as part of all inductions.</li> </ul> <p>Regular Toolbox talks on safety features, managing fatigue, approved heavy routes, driver responsibility and drink-driving (see Section 2.4 ).</p>			
<p>If a vehicle crash occurs, the vehicle will be stopped as close as possible to the scene without hindering traffic.</p>	Drivers/ Management	Following a vehicle crash	
<b>Waste</b>			
<p>The transport of any hazardous and/or industrial and/or Group A waste from the site will be conducted strictly in accordance with any requirements that may be specified by the EPA in relation to the transport of those wastes.</p>	Management/ Contractors	Ongoing	
<p>Materials will be delivered on an “as needs” basis to mitigate material degradation by weathering or moisture damage.</p>	Management		
<p>Site preparation and construction wastes will be sorted and segregated to ensure efficient recycling of wastes.</p>			
<p>Wastes will be stored appropriately to prevent cross-contamination and/or mixing of different waste types.</p>	Management/ Contractors		
<p>Packaging wastes will be reduced by:</p> <ul style="list-style-type: none"> <li>Returning packaging to suppliers where possible and practicable;</li> <li>Purchasing in bulk;</li> <li>Requesting cardboard or metal drums rather than plastics;</li> <li>Requesting metal straps rather than shrink wrap; and</li> </ul> <p>Using returnable packaging such as pallets and reels</p>	Management		
<p>Volumes of materials will be estimated to reduce over purchasing.</p>			
<p>Formwork will be reused where appropriate.</p>			
<p>Subcontractors will be informed of and required to implement site waste management procedures.</p>			Prior to commencing construction
<p>Separate waste bins will be provided for recyclable and non-recyclable general wastes.</p>			Ongoing
<p>Waste oil will be recycled/disposed of in an appropriate manner.</p>	Management / Contractors		
<p>Roofing material cut-offs will be retained for re-use</p>			
<p>Crates will be retained for storage purposes unless damaged.</p>			
<p>Cardboard, glass and metal wastes will be recycled.</p>	Management / Contractors / Employees		

Environmental Management Control	Person Responsible	Timing / Frequency
Packaging waste will be reduced by return of packaging to suppliers where possible, use of returnable bulk packaging, through bulk purchasing and requesting cardboard or metal drums, and metal straps, in place of plastics that can't be recycled.	Management/ Contractors	
Solid waste timber, brick, concrete, tiles, asphalt and rock (where such waste cannot be re-used on site) will be recycled/disposed of to an appropriately licenced construction and demolition (C&D) waste recycling facility or an appropriately licenced landfill.		
Sorting and segregation of wastes will be undertaken to ensure efficient reuse and recycling of materials throughout construction activities.	Management / Contractors / Employees	
Waste bins will not be filled beyond recommended filling levels.		
All bins and loads of waste materials leaving site will be covered.	Management/ Contractors	
Waste records will be maintained.		
Wastewater or liquid waste generated from site preparation or construction activities will not enter the stormwater system or migrate offsite.	Management / Contractors / Employees	
Spillages will be contained immediately (if safe to do so) and the Construction Manager notified as soon as possible.		
Spill containment kits and spill control equipment will be provided and maintained in sufficient numbers and at appropriate locations to allow ready and rapid access by site personnel. Safety Data Sheets (SDSs) will also be available to provide advice on spill clean-up and disposal.	Management	
Standard signage will be posted in all waste storage / collection areas to inform and educate users of waste storage / collection areas while promoting waste minimisation and resource recovery.		
Signage will be located to ensure visibility and well-lit at all times. All waste containers / areas will be labelled correctly and clearly to identify stored materials. Bin lid stickers will be affixed to each bin, advising of the bin waste type.		Ongoing
Signs approved by the NSW EPA for labelling of waste materials are available online and will be used where applicable.		
Rubbish and debris will be removed from planting areas.		
<b>Soil and Water</b>		
Overflow drains will be cleared of mulch and other foreign material.	Management/ Contractors	Ongoing



Environmental Management Control	Person Responsible	Timing / Frequency
Sediment and erosion control measures, including silt fences, will be erected downstream of active emplacement or earthworks areas which have not yet been stabilised to catch any silt from surface construction runoff and prevent sedimentation of downstream receiving waters.		Prior to commencing construction
Soil and water management controls will be employed to minimise soil erosion and the discharge of sediment and other pollutants to lands and/or waters during site preparation and construction activities, in accordance with Landcom's <i>Managing Urban Stormwater: Soils and Construction</i> .		Prior to commencing construction and ongoing
All stockpiled construction materials will be adequately located, stabilised and maintained to prevent erosion or dispersal of the materials.		Ongoing
Contaminated areas that are disturbed by construction works will be remediated prior to the commencement of project operations at these areas.		Prior to commencing operation
Sediment controls will be placed around each area containing stockpiles of a certain type (e.g. stockpiles of contaminated material, stockpiles of uncontaminated material) such that: <ul style="list-style-type: none"> <li>No runoff from any other part of the site reaches the stockpiled material;</li> <li>No uncontrolled runoff from stockpiles reaches any other part of the site; and</li> </ul> No uncontrolled runoff from any stockpile area reaches another stockpile area.		Ongoing
Stockpiles will be established: <ul style="list-style-type: none"> <li>Away from adjacent properties, drainage lines and water bodies. Avoid designated drains, sumps and low-lying areas subject to flooding or runoff.</li> </ul> On a reasonably robust barrier (i.e. concrete, geofabric and plywood).		
Stockpiles shall: <ul style="list-style-type: none"> <li>Not exceed the height of site boundary hoarding to minimise dust generation from the site.</li> <li>Be less than 2m in height with side slopes to be a maximum ratio of 1V:2H.</li> <li>Be appropriately labelled to minimise the risk of cross contamination.</li> </ul> Be positioned and formed to minimise potential for stockpile erosion where possible.		
Stockpiles shall be wetted down, covered with 200 µm polythene sheeting or geofabric.	At the end of each day	

Environmental Management Control	Person Responsible	Timing / Frequency
Silt fencing, drain protection, hay bales, diversion drains and other runoff controls will be installed as appropriate to prevent uncontrolled offsite discharge of surface water and/or runoff.	Management	Ongoing
Stockpiles will be placed within a securely fenced area.	Management/ Contractors	
Stockpiles will be located on hardstand where possible. If hardstand areas are not available for stockpiling, stockpiles will be placed on heavy duty plastic sheeting.		
Except when being worked on, stockpiles will be adequately and appropriately covered to minimise the potential for wind erosion, infiltration of rainwater and generation of runoff.		
<b>Hazards and Risk</b>		
Management of asbestos or asbestos containing material will be in accordance with an approved asbestos management plan	Management/ Contractors	Ongoing
The transport of any hazardous and/or industrial and/or Group A waste from the site will be conducted strictly in accordance with any requirements that may be specified by the EPA in relation to the transport of those wastes.		
All dangerous goods will be stored and handled strictly in accordance with: a) all relevant Australian Standards; <i>Work Health and Safety Regulation 2017.</i>	Management / Contractor / Employees	
<b>Heritage</b>		
Any identified Aboriginal items or objects will be registered on the OEH's Aboriginal Heritage Information Management System (AHIMS) Aboriginal Sites Register.	Management	As required
If any item or object of Aboriginal heritage significance is identified on Site the unexpected finds protocol will be implemented in accordance with the UFP – Archaeological Items		
Work in the immediate vicinity of the Aboriginal item or object will only recommence in accordance with the provisions of Part 6 of the National Parks and Wildlife Act 1974.	Management	Ongoing
If any archaeological relics are uncovered during construction, then all works in the immediate vicinity of the relic will cease immediately	Management / Contractors	If an archaeological relic is uncovered
Unexpected finds will be evaluated and recorded in accordance the requirements of OEH NSW Heritage Division.	Management	As required
<b>Biodiversity</b>		
A Project Ecologist will undertake a pre-clearance inspection to identify any micro-bat roosting.	Management / Contractors	Prior to demolition

Environmental Management Control	Person Responsible	Timing / Frequency
If micro-bats are found, works are to stop and the Project Ecologist or wildlife carer will be contacted to undertake relocation.		During demolition works
If any injured fauna species are found, construction must stop immediately so that the injured animal can be taken to a vet or wildlife carer.		During construction
All handling of fauna species will be conducted by a Project Ecologist or wildlife carer.		Ongoing
Animals that are displaced <b>will</b> be removed and relocated to nearby bushland prior to felling or the tree or structure <b>will</b> be sectioned and dismantled under the supervision of a Project Ecologist before relocating the animals.		During vegetation clearing
Ongoing weed management and erosion control will be undertaken where possible.		During, and after the completion of construction works
Install erosion and sediment control measures prior to any works, followed by regular inspection and maintenance during construction.		Prior to any works, and inspections and maintenance during construction
All vehicles, equipment, footwear and clothing will be clean and free of weed propagules.		Prior to entering the site
Any weeds that are removed should be disposed of via an appropriate waste facility.		During the construction phase

## 4 Monitoring, Reporting and Auditing

**Table 6** summarises the monitoring requirements for the Development.

**Table 6 Monitoring and Inspection Requirements**

Environmental Management Control	Person Responsible	Timing / Frequency	Reference / Notes
<b>Noise and Vibration</b>			
Noise and/or vibration monitoring may be required in response to any complaints received to verify that levels are not substantially above the predicted levels.	Management	Following receipt of complaint	Best Practice
Where works are required within the safe working distances, vibration monitoring will be undertaken to confirm that vibration is within acceptable levels.		Prior to commencing construction	
Where works are required within the cosmetic damage safe working distances, dilapidation surveys will be completed before and after the works to ensure no cosmetic damage has occurred.		Prior to commencing and following completion of construction	
<b>Air Quality</b>			
<p>Visual inspections will be undertaken to:</p> <ul style="list-style-type: none"> <li>Identify if any dust clouds can be seen leaving site;</li> <li>Check for smoky exhausts on vehicles and equipment operating on site; and</li> <li>Confirm compliance with air quality mitigation measures specified Section 4.</li> </ul> <p>Where excessive dust events occur (i.e. prolonged visual dust in an area) watering of dusty activities is to be undertaken or activities temporarily halted and then resumed once weather conditions have improved.</p> <p>Record inspection results and inspect log available to the local authority when asked.</p>	Contractor	Daily	Best Practice
<b>Waste</b>			
<p>Construction waste stream volumes and their respective management (reused, recycled or disposed) will be monitored and recorded.</p> <p>The evidence for waste recycling/disposal services will be retained and made available for inspection by Council/EPA. This includes weighbridge docket, invoices, receipts and a log book recording waste classifications and containing the site validation certificate.</p>	Management/ Contractors	Ongoing	Best Practice
Daily inspections will be undertaken prior to leaving the site to ensure all waste items are appropriately contained and covered so as not to become a source of windblown litter and to ensure storm water controls are in place in case of rain to prevent waste contamination of storm water drains.		Daily	

Environmental Management Control	Person Responsible	Timing / Frequency	Reference / Notes
<b>Soil</b>			
In the event asbestos-containing soil requires disposal to landfill, the source location, volume, classification and destination of asbestos waste material removed from site will be required to be tracked by the appointed contractor. The contractor will maintain a material tracking register along with consignment dockets confirming receipt of the material at the disposal facility for inclusion within the Validation Report.	Management/ Contractors	As required	Best Practice
Adequate evidence that confirms waste classification and proof that the receiving facilities are licenced to accept the waste.	Site Auditor		
If classification of waste or any other aspect of the waste handling documentation is not satisfactory, this will be noted in the Site Audit Report and NSW EPA will be notified.			
A Materials Tracking Plan will be prepared and record any materials transferred, imported or disposed offsite.	Management/ Contractors	Prior to construction	Best Practice
<b>Landscaping</b>			
Overflow drains will be cleared of mulch and other foreign material.	Management / Contractors	Monthly	LEAMP Section 4.1.7
<b>Emergency</b>			
To be completed post DA consent, prior to construction	NA	NA	NA

## 4.1 Reporting

Table 7 summarises the reporting protocols for the Project.

**Table 7 Reporting Requirements**

Environmental Management Control	Person Responsible	Timing / Frequency
<b>General Environmental Performance</b>		
All complaints received will be recorded in an up-to-date Complaints Register and made available for inspection by the Council upon request.	Management /	Ongoing
<b>Incident Reporting</b>		
The Council will be notified of any incident with actual or potential significant off-site impacts on people or the biophysical environment as soon as practicable after the occurrence of the incident. Written details of the incident will be provided to the Secretary within seven days of the date on which the incident occurred.	Management	Ongoing

Environmental Management Control	Person Responsible	Timing / Frequency
A register of accidents, incidents and potential incidents with actual or potential significant off-site impacts on people or the biophysical environment will be maintained. The register will be made available for inspection at any time by Council.		
The cause or impact of any incident, as it relates to this approval, will be addressed as required by the Council.		
<b>Landscaping</b>		
Inspection records of all landscape and ecological management area actions will be kept and provided to Council.	Management / Contractor	Ongoing

**Table 8** summarises the auditing requirements for the development which will be issued with the as set out in the DA and relevant management plans once approved.

**Table 8 Auditing Requirements**

Environmental Management Control	Person Responsible	Timing / Frequency	Reference / Notes
To be completed once the DA and relevant management plans for the development have been approved.	NA	NA	NA

## 5 Preliminary CEMP Review

This Preliminary CEMP will be reviewed and, if necessary, revised in the following circumstances:

- xii) Issue of the development consent;
- xiii) Following any significant environmental incident or impact;
- xiv) Where there is any change to the scope of the Development’s construction activities and/or disturbance footprint;
- xv) Where it is identified that the environmental performance of the Development is not meeting the objectives of the Preliminary CEMP; and/or
- xvi) At the request of a relevant regulatory authority.

All employees and contractors will be informed of any revisions to the Preliminary CEMP by Site Management during toolbox talks.

# APPENDIX A

Incident and Hazard Report Form  
(to be completed after the DA for the development has been approved)





# APPENDIX B

Complaint Form  
(to be completed after the DA for the development has been approved)



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