

**CONSTRUCTION ENVIRONMENTAL
MANAGEMENT PLAN
PREPARED FOR
GREENFIELDS RESOURCE RECOVERY FACILITY
344 PARK ROAD, WALLACIA NSW 2745**

Prepared for: Greenfields Resource Recovery Facility

Prepared by: Matthew Taylor, Environmental Scientist
R T Benbow, Principal Consultant

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Benbow
ENVIRONMENTAL

Engineering a Sustainable Future for Our Environment

Head Office: 25-27 Sherwood Street, Northmead NSW 2152 AUSTRALIA
Tel: 61 2 9896 0399 Fax: 61 2 9896 0544
Email: admin@benbowenviro.com.au

Visit our website: www.benbowenviro.com.au

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DOCUMENT CONTROL

Prepared by:	Position:	Signature:	Date:
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Matthew Taylor

Environmental Scientist



06 August 2021

Reviewed by:	Position:	Signature:	Date:
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Linda Zanotto

Senior Environmental Engineer



06 August 2021

Approved by:	Position:	Signature:	Date:
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R T Benbow

Principal Consultant



06 August 2021

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Benbow

ENVIRONMENTAL

A.B.N. 17 160 013 641

Head Office:

25-27 Sherwood Street Northmead NSW 2152 Australia
P.O. Box 687 Parramatta NSW 2124 Australia
Telephone: +61 2 9896 0399 Facsimile: +61 2 9896 0544
E-mail: admin@benbowenviro.com.au

Visit our Website at www.benbowenviro.com.au

Contents

Page

1. INTRODUCTION	1
1.1 Objectives of the CEMP	1
1.2 CEMP Structure	1
1.3 Environmental Procedures	2
2. PROJECT DESCRIPTION	4
2.1 Site Location	4
2.2 Project Contact Information	5
2.3 Site Facilities	6
2.4 Expected Works	7
2.4.1 Construction Works	7
2.4.2 Construction Hours	8
3. PLANNING	9
3.1 Legal Requirements	9
3.2 Licences, Permits & Approvals	9
3.2.1 Development Consent Conditions	9
3.3 Environmental Policy	9
3.4 Significant Environmental Aspects & Potential Impacts	10
3.4.1 Risk Assessment Methodology	10
3.4.1.1 Consequence Estimation	10
3.4.1.2 Likelihood Estimation	11
3.4.1.3 Level of Risk	11
3.5 Environmental Objectives, Targets and Programmes	12
4. IMPLEMENTATION AND OPERATION	13
4.1 Key Roles and Responsibilities	13
4.2 Environmental Training	16
4.2.1 Site Induction	16
4.2.2 Regular Site Meetings	16
4.3 Communication	16
4.3.1 Community Relations	17
4.3.1.1 Complaints Response	17
4.3.2 Regulatory Authorities	17
4.3.3 Internal Communication	17
4.3.4 Response Actions for Pollution Incidents	18
4.3.5 Incident Reporting	20
5. MONITORING AND CORRECTIVE & PREVENTATIVE ACTIONS	21
5.1 Environmental Inspections	21
5.2 CEMP Review	21
5.3 Corrective and Preventative Actions	21
5.3.1 Request for Corrective Action	21
5.4 Records	22

Tables	Page
Table 1-1: CEMP Requirements	1
Table 2-1: Site Identification Details	4
Table 3-1: Consequence Table	10
Table 3-2: Likelihood Table	11
Table 3-3: Level of Risk Table	11
Table 3-4: Environmental Objectives and Targets	12
Table 4-1: CEMP Related Roles and Responsibilities	13

Figures	Page
Figure 2-1: Site Location (Aerial Photograph)	4
Figure 4-1: Example Organisational Chart	15
Figure 4-2: Pollution Incident Response Flowchart	19

Attachments

Attachment A1: Legal Register
Attachment A2: Environmental Aspects Register
Attachment A3: Environmental Forms
Attachment A4: Environmental Procedures Manual
Attachment A5: Environmental Policy
Attachment A6: Site Plans



GLOSSARY / ABBREVIATIONS

Term / Abbreviation	
Ancillary facility	Temporary
Audit	As defined in ISO 19011:2011, an audit is: “A systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which the audit criteria are fulfilled.”
CEMP	Construction Environmental Management Plan
Council	Penrith City Council
DCC	Development Consent Condition
DPI	Department of Primary Industries
DPiE	Department of Planning, Industry and Environment
Ecologically sustainable development	“Development that meets the need of the present generation without compromising the ability of future generations to meet their own needs.”
EIS	Environmental Impact Statement
EPA	NSW Environment Protection Authority
Environmental aspect	<p>An environmental aspect is defined in ISO14001, 3.2.2 as:</p> <p><i>‘An element of the organisation’s activities, products or services which can interact with the environment.’</i></p> <p><i>NOTE 1: An environmental aspect can cause an environmental impact. A significant environmental aspect is one that has or can have one or more significant environmental impact(s).</i></p> <p><i>NOTE 2: Significant environmental aspects are determined by the organisation applying one or more criteria.</i></p>
Environmental impact	<p>An environmental impact is defined in ISO14001, 3.2.4 as:</p> <p><i>‘Any change to the environment whether adverse or beneficial, wholly or partially resulting from an organisation’s environmental aspects’.</i></p>
Environmental incident	See: Pollution incident
Environmental objective	An environmental result the organisation aims to achieve.
Environmental policy	Statement of intention in regards to environmental performance by a company
EP&A Act	Environmental Planning and Assessment Act, 1979
EPL	Environment Protection Licence
ESCP	Erosion and Sediment Control Plan
N/A	Not applicable
Non-compliance	Failure to comply with any licence, approval, legal or other requirements

Term / Abbreviation	
Non-conformance	Failure to comply with requirements of this CEMP
NOW	NSW Office of Water
POEO Act	Protection of the Environment Operations Act, 1997
Pollution Incident	The Environmental Guidelines: Preparation of pollution incident response management plans defines a pollution incident as: “...an incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur. It includes an incident or set of circumstances in which a substance has been placed or disposed of on premises, but it does not include an incident or set of circumstances involving only the emission of any noise.”
RMS	Roads and Maritime Services



1. INTRODUCTION

This Draft Construction Environmental Management Plan (CEMP) documents the environmental aspects, the associated mitigation measures and environmental management procedures for the construction of the proposed resource recovery facility located at 344 Park Road, Wallacia NSW 2745.

The CEMP has been developed with guidance from: *AS/NZS ISO 14001:2015, Environmental Management Systems: Requirements with guidance for use*; *AS/NZS ISO 14004:2016, Environmental Management Systems: General guidelines on implementation*; and *Environmental management Plan Guidelines* (Commonwealth of Australia, 2014).

This draft plan is based on the Environmental Impact Statement prepared by Benbow Environmental and accompanying technical reports and plans and has been prepared to support the development application as requested by Penrith City Council. This plan will need to be updated following receipt of development consent conditions, issue of the environment protection licence and preparation of relevant construction drawings. It is to be used as a guide for what is expected to be required to manage environmental issues during construction. A final plan would be issued and lodged with the application for a Construction Certificate.

1.1 OBJECTIVES OF THE CEMP

The objectives of the CEMP are:

- To ensure that all staff and contractors are aware of the environmental aspects and impacts related to the proposed works and that they are competent in implementing the specific environmental safeguards that apply to their activities; and
- To establish environmental management objectives and procedures in order to:
 - ▶ Achieve regulatory compliance;
 - ▶ Minimise any environmental harm on-site and off-site, resulting from the proposal; and
 - ▶ Improve environmental performance during the proposed works on site.

1.2 CEMP STRUCTURE

This CEMP has been prepared in line with the *Guideline for the Preparation for Environmental Management Plans* (NSW DIPNR, 2004). Requirements for the CEMP are categorically addressed in Table 1-1.

Table 1-1: CEMP Requirements

CEMP Requirement	Section of CEMP
Background	
Introduction	Section 1
Project Description	Section 2.2
CEMP Context	Section 2
CEMP Objectives	Section 1.1
Environmental Policy	Section 3.3 and Attachment A5



Table 1-1: CEMP Requirements

CEMP Requirement	Section of CEMP
Environmental Management	
Environmental Management Structure and Responsibility	Section 4.1
Approval and Licencing Requirements	Section 3.2
Reporting	Section 4.3.5 and Attachment A4
Environmental Training	Section 4.2
Emergency Contacts and Response	Section 4.3.4
Implementation	
Risk Assessment	Section 3.4 and Attachment A2
Environmental Management Activities and Controls	Section 3.5 and Attachment A4
Environmental Management Plans or Maps	Attachment A4 and A6
Environmental Schedules	
Monitor and Review	
Environmental Monitoring	Section 5 and Attachment A3 and A4
Environmental Auditing	Attachment A3 and A4
Corrective Action	Section 5.3
CEMP Review	Section 5.2

1.3 ENVIRONMENTAL PROCEDURES

A set of environmental construction procedures has been compiled into a manual and provided as Attachment A4. These procedures are a pragmatic way for construction staff and contractors to carry out activities in an environmentally responsible way and ensure this CEMP is adequately implemented during construction. They provide guidance and checklists to ensure construction is undertaken in an environmentally responsible manner. Any detailed sub-plans required by conditions of consent such as Traffic Management and Waste Management Plans are not included.

Attachment A4 includes environmental procedures for the following:

- Air Quality Management
- Noise & Vibration Management
- Erosion, Sediment & Stormwater Management
- Waste Management
- Spill Procedure
- Construction Traffic Management
- Flora and Fauna Management
- Unexpected Finds Protocol
- Regular Site Inspection



Likewise, a set of records and forms associated with the environmental management of the site are also provided as Attachment A3. These registers and forms include:

1. Environmental Training Register
2. Incident Reporting Forms
3. Complaints Forms
4. Corrective and Preventative Actions Form

2. PROJECT DESCRIPTION

2.1 SITE LOCATION

The subject site is located at 344 Park Road, Wallacia NSW 2745. The site details are summarised in Table 2-1 and an aerial photograph of the subject site is shown in Figure 2-1.

Table 2-1: Site Identification Details

Address	344 Park Road, Wallacia NSW 2745
Lot and DP Numbers	Lot 5 DP 655046
Local Government Area	Penrith City Council
Approximate Site Area	200,730 m ²
Current Land Zoning	RU1 – Primary Production

Figure 2-1: Site Location (Aerial Photograph)





2.2 PROJECT CONTACT INFORMATION

The contact details in this section would be completed in the final version of this CEMP following approval of the DA and once construction contractors have been engaged.

Site Owner:	
Contact Phone Number:	
Email Address:	
Principal Contractor:	
Licence No.	
Contact Name:	
Contact Phone Number:	
Email Address:	
Postal Address:	
24-hour Emergency Contact Name:	
24-hour Contact Phone Number:	
Email Address:	

Sub-contractors (TBA)

Contractor Name	Address	Contact Name	Telephone

Appointed Emergency Contacts (TBA)

Position	Name	Telephone
Chief Warden		
Deputy Chief Warden		
Occupational First Aiders		
Traffic Control Officer		
Communications Officer		



2.3 SITE FACILITIES

The proposal involves the establishment and operation of a resource recovery facility for the processing and recovery of construction and demolition (C&D) and commercial and industrial (C&I) waste. Up to 95,000 tonnes of material would be processed annually.

The facility would be located within the north eastern portion of the site, the majority of which has previously been disturbed by former tenants. This area of site is currently not being used and the remaining site area is vegetated. The proposed development has been designed to retain the existing vegetation outside the already disturbed areas of the site.

A structural steel framed metal clad building with an approximate floor area of 5,800 m² is proposed. The building will be fully compliant with the Building Code of Australia and relevant Australian Standards. All processing operations would be undertaken within this building. This building would contain offices, meeting rooms and amenities with access to the main production area. The production building would also contain a workshop area bordered with a chain wire fence. Minor maintenance activities including routine maintenance of on-site vehicles and RRTF equipment would be undertaken in this area including minor repairs and welding.

The existing dwelling on site would be converted into an office and amenities building and require internal modifications only.

Two weighbridges would be installed and new car and truck parking areas, sealed internal driveways and site access would be established. Access to the site would be via a two way sealed driveway which would provide a one way direction of traffic around the building.

The incoming waste will mostly be sourced from infrastructure projects mainly within the Western Sydney growth area. Waste would be stored within designated storage bays within the building with some external covered storage bays located along the outside western building wall. A RRTF plant would be installed within the building that would separate waste materials which would be sent for further recycling off-site. Paper baling would take place within the building and bales stored in a designated area within the building.

The site contains adequate power supply and is connected to mains water. Solar panels would be installed on the roof of the new building to provide power for lighting purposes. An aerated wastewater treatment system (AWTS) would be established for the new amenities in the new building. Stormwater infrastructure would be installed including rainwater tanks to capture roof water and pits to collect surface runoff from the development area that would be directed to bioretention filter media areas and then a sediment pond where water monitoring would be undertaken. A leachate containment pond would be established to capture any potentially contaminated surface runoff from sealed areas adjacent to external storage bunkers. Water from this pond would evaporate. There would be no water discharge from the site.

The site would be fully fenced and gated with security design features installed.

Site plans are provided as Attachment A6.



2.4 EXPECTED WORKS

2.4.1 Construction Works

Construction works would involve cut and fill works, erection and fit out of an industrial building, internal sealed driveways and hardstand areas, a car parking and truck parking area, two weighbridges and internal fit out of the existing dwelling for use as an office building and installation of associated infrastructure.

The main building will be a standard Colorbond shed with concrete slab and have a floor area of approximately 5,800 m². There would be nine 6 m x 6 m roller shutter doors providing entry and exit access for trucks to arrive and unload inside the building then leave and also for on-site vehicles to move inside and outside the building. The building would be 8.2 m in height at the wall and 12.5 m in height at the apex. A ridge vent of approximately 600 x 600 mm would provide natural ventilation. Solar panels would be installed on the roof to supply power for lighting purposes. Internal storage bays would be constructed of steel frame and plate push walls of formed concrete up to 2.5 m high. A workshop would be situated within this building adjacent to the internal storage bays. Storage bays would also be constructed along the outer western wall of the building. The external storage bays would have formed concrete side walls to 2.5m high and be covered with an awning.

A production office would form part of the main building at the north western end and contain a reception area, lunchroom, meeting room, office and amenities. The office would be 4.4 m in height and be constructed of concrete tilt panel walls, aluminium windows and metal roofing with an awning over an outdoor seating area.

The existing dwelling would require internal modifications and would contain offices and amenities for the staff employed at the facility.

Six rainwater tanks would be installed at the site which would capture roof water for reuse. There would also be tanks supplied by mains water for emergency firefighting purposes. Stormwater infrastructure such as pits, bioretention filter media areas, leachate evaporation pond and sediment pond would also be installed.

Construction and excavation will be restricted to approximately 25% of the total site area. This area would be fenced accordingly with the remainder of the site signposted as "No Go Zones".

The following sequences of activities are anticipated during the construction works:

1. Site establishment – installing temporary fencing, signage, waste skip bins, erosion and sediment controls.
2. Relocation or protection of services – relocating and protecting electricity, gas and telecommunications infrastructure affected by the project if required.
3. Site preparation – demolish any existing infrastructure that requires removal, and removal and/or protection of existing trees and vegetation.
4. Earthworks – undertake cut and fill works to establish required levels and minor excavations to establish footings and foundations for the new building and formwork for car parking area and driveways.
5. Structures – construction of new building ,covered storage bunkers, rainwater tanks and required infrastructure.



6. Pavements –Establishing sealed car parking area and driveways.
7. Internal fit out and security – installing the RRTF plant in the building, constructing storage bays and general fit out of the building. Install weighbridge, gate house, security fencing and gates.
8. Commissioning – removal of temporary construction fencing and facilities, waste removal/recycling and commissioning of new infrastructure.
9. Landscaping.

Detailed construction plans are to be prepared and are not available at this early stage of the development.

2.4.2 Construction Hours

Construction would take place in one stage and be undertaken within the hours of 7:00am–6:00pm Monday to Friday and 8:00am–4:00pm Saturday. No building activities are to be carried out at any time on a Sunday or Public Holiday.

Where the development involves the use of jackhammers/rock breakers and the like, or other heavy machinery, such equipment may only be used between the hours of 7:30am – 5:00pm Monday to Friday and 8:30am – 1:00pm on Saturday.

The existing dwelling would be used for amenities and offices during construction.

It is anticipated the timing for the construction works would be 12 to 18 months.



3. PLANNING

The legal requirements that affect the operation of this site include any legislation which relates to activities or potential environmental impacts of the operations.

The following federal and state acts and associated regulations are key legislation pertaining to the environmental management of the site:

- Protection of the Environment Operations Act, 1997 (POEO Act);
- Environmental Planning and Assessment Act, 1979 (EP&A Act); and
- Work Health and Safety Act, 2011 (WHS Act).

Note that changes to legislation or regulations during operations would require a corresponding change to the CEMP and specific procedures. Visit <http://www.legislation.nsw.gov.au/> for further details.

All licences, permits and approvals required for the project are also presented.

3.1 LEGAL REQUIREMENTS

A register of legal and other requirements for the project is provided in Attachment A1. Changes to legislation or regulations during construction may require a corresponding change to the CEMP.

Affected procedures would need to be modified accordingly.

3.2 LICENCES, PERMITS & APPROVALS

Attachment A1 contains a list of licences, permits and approvals that are required for the construction phase of the project. This list needs to be maintained by the Project Manager and should be reviewed at regular intervals during construction.

3.2.1 Development Consent Conditions

The development consent conditions (DCC) are issued by Council on acceptance of a proposed development or alteration/addition to existing developments under the *EP&A Act 1979*. The DCCs that apply to construction at the site need to be fulfilled in order to comply with current environmental and planning legislation, policies and guidelines.

This CEMP would need to be updated upon receipt of DCCs to ensure any conditions associated with management of the site's environmental aspects during construction are adequately addressed.

3.3 ENVIRONMENTAL POLICY

Values and environmental commitments have been formalised in an Environmental Policy which is provided as Attachment A5. This policy is considered integral to the way the company does business and would be incorporated into all operations including during construction.



3.4 SIGNIFICANT ENVIRONMENTAL ASPECTS & POTENTIAL IMPACTS

A register of environmental aspects and potential impacts is provided as Attachment A2. A risk assessment was undertaken on each identified potential impact to determine its significance using a risk rating based on the likelihood and consequence descriptors. The risk assessment methodology is provided in the sub-sections that follow.

Mitigation measures were considered in the register.

3.4.1 Risk Assessment Methodology

The methodology described in the following sections was used in assessing the risks associated with site activities.

The following sub-section defines the risk criteria used in this assessment.

3.4.1.1 Consequence Estimation

Consequence descriptor is used to quantify the potential on-site and off-site impacts in terms of environmental, health and financial impacts. Consequence is described in Table 3-1.

Table 3-1: Consequence Table

Level	Descriptor	Consequences Or Impact Description
1	Insignificant	Confined on-site environmental impacts able to be promptly rectified. No injuries. Financial loss less than \$2,000.
2	Minor	Confined environmental impacts requiring short term recovery with potentially little or no off-site impacts. First Aid treatment. Financial loss \$2,000 to \$20,000.
3	Moderate	Confined environmental impacts requiring medium term recovery both on-site and off-site. Medical treatment required. Financial loss \$20,000 to \$200,000,
4	Severe	Unconfined environmental impacts requiring long term recovery and leaving residual damage both on-site and off-site. Extensive injuries, loss of product capability. Financial loss \$200,000 to \$1M.
5	Catastrophic	Widespread environmental impact requiring long term recovery and leaving major damage both on-site and off-site. Death. Financial loss more than \$1M.

3.4.1.2 Likelihood Estimation

This aspect involves determining how likely an event is to occur. Likelihood is the chance that something might happen and is defined for the purposes of this assessment in Table 3-2.

Table 3-2: Likelihood Table

Level	Descriptor	Likelihood Description
A	Almost Certain	Very likely. The event is expected to occur in most circumstances.
B	Likely	Strong possibility. The event will probably occur in most circumstances.
C	Possible	The event might occur at some time.
D	Unlikely	Not expected. There is a slight possibility the event could occur at some time.
E	Rare	Highly unlikely. The event may occur only in exceptional circumstances.

3.4.1.3 Level of Risk

The level of risk is defined by Table 3-3.

Table 3-3: Level of Risk Table

		Consequence				
		Insignificant 1	Minor 2	Moderate 3	Severe 4	Catastrophic 5
Likelihood	A (almost certain)	M (5)	H (10)	H (15)	V (20)	V (25)
	B (likely)	L (4)	M (8)	H (12)	H (16)	V (20)
	C (possible)	L (3)	M (6)	M (9)	H (12)	H (15)
	D (unlikely)	L (2)	L (4)	M (6)	M (8)	H (10)
	E (rare)	L (1)	L (2)	L (3)	L (4)	M (5)

The area shown in red indicates a very high level of risk (V) where mitigation measures are essential.

The area in orange is a high level of risk which is intolerable and where risk reduction is required.

The area shown in yellow indicates a moderate level of risk (M). Whilst the risk is not unacceptable, there should be practical measures taken to lower the risk. For risks where further mitigation is not economically viable, judgment needs to be exercised as to whether the level of risk is acceptable or not. While risk of an incident may be tolerable, steps still need to be taken to reduce the risk level to as low as reasonably practicable.



The area, shown in green, indicates a low level of risk (L) and is broadly considered to be acceptable. Further risk mitigation may not be required/appropriate. However, low and accepted risks should be monitored and routinely reviewed to ensure that they remain acceptable.

3.5 ENVIRONMENTAL OBJECTIVES, TARGETS AND PROGRAMMES

This section outlines general environmental objectives and targets that could be adopted during the proposed construction activities for the required environmental management of the site. The purpose of setting environmental objectives and targets is to achieve the internal performance criteria set by the proponents and to assist in correcting and preventing environmental issues identified during inspections on site.

Recommended environmental objectives and targets for the site are presented in Table 3-4.

Table 3-4: Environmental Objectives and Targets

Objective	Target	Method of Achievement	Timeframe
Construct the project in accordance with approvals	<ul style="list-style-type: none"> Full compliance with development consent conditions 	<ul style="list-style-type: none"> Weekly inspections Audits 	Throughout construction phase
Compliance with all legal requirements	<ul style="list-style-type: none"> No regulatory non-compliances No prosecutions No warnings 	<ul style="list-style-type: none"> Weekly inspections Audits 	Throughout construction phase
Implement the CEMP and procedures	<ul style="list-style-type: none"> Address non-conformances and implement corrective actions within adequate timeframes 	<ul style="list-style-type: none"> Weekly inspections Audits 	Throughout construction phase
Engage with affected community	<ul style="list-style-type: none"> Distribute project updates Record and respond to complaints within an adequate timeframe. 	<ul style="list-style-type: none"> Company website or other means Complaints response / register 	As required
Ensure all environmental mitigation measures are adequately implemented	<ul style="list-style-type: none"> No incidents 	<ul style="list-style-type: none"> Weekly inspections & monitoring 	Throughout construction phase



4. IMPLEMENTATION AND OPERATION

Successful implementation of this CEMP requires knowledge, skills and training, as well as the appropriate allocation of resources, and the clear delegation of responsibilities. It is also important that appropriate communication is established with the various stakeholders involved (e.g. surrounding residential community and regulatory authorities).

This section discusses the following:

- The key environmental roles and responsibilities; and
- Environmental training and appropriate communication strategies/procedures.

4.1 KEY ROLES AND RESPONSIBILITIES

Key roles and responsibilities for protecting the environment and implementing environmental procedures during the construction phase are provided below. This description provides a guide to the roles the construction team would require during the project. The structure of these roles is provided in Table 4-1. Figure 4-1 displays a typical organisational chart.

Table 4-1: CEMP Related Roles and Responsibilities

Role/Position	Responsibilities
Project/Construction Managers	<ul style="list-style-type: none">• Ensure signs are installed that show the principal contractor's details• Review and update the CEMP, and ensure that each person who is to carry out the construction work is made aware of relevant procedures• Ensure necessary resources are made available for implementation of the CEMP• Ensure construction work is being undertaken in accordance with the CEMP• Ensure construction workers have the required training and have completed the site induction prior to commencement of construction work at the site.
Site Manager	<ul style="list-style-type: none">• Ensure that each person who is to carry out the construction work is made aware of relevant requirements and/ or procedures• Coordinate environmental training required• Make arrangements for ensuring compliance with the requirements for general workplace management• Manage any specific risks relating to WHS and environmental management such as waste disposal and unexpected finds
Foreman/Leading Hands	<ul style="list-style-type: none">• Ensure CEMP is implemented• Carry out daily inspections and monitoring required• Ensure all environmental mitigations measures and controls are installed and working efficiently

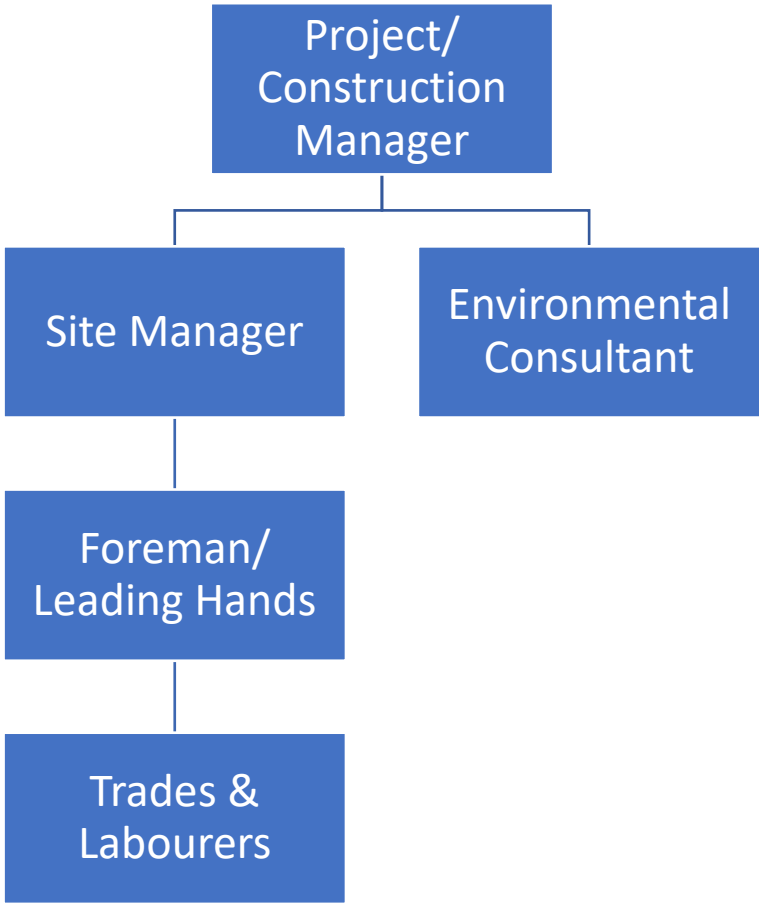


Table 4-1: CEMP Related Roles and Responsibilities

Role/Position	Responsibilities
All Workers (e.g. Machine Operators, Truck Drivers and Labourers) and any Sub-Contractors	<ul style="list-style-type: none"> Responsible for carrying out construction activities in accordance with the CEMP and procedures Responsible for informing the Principal Contractor of any issues with implementing the CEMP, or amendments needed as soon as practicable Take reasonable care for own health and safety and that of others Comply with any reasonable instruction, policy or procedure relating to WHS and environmental management at the construction site
Environmental Consultant	<ul style="list-style-type: none"> An environmental consultant may need to be appointed for solving any environmental non-compliance at the construction site



Figure 4-1: Example Organisational Chart





4.2 ENVIRONMENTAL TRAINING

The Project/Construction Manager has the responsibility to ensure that environmental training is undertaken. The Site Manager will coordinate environmental training as set out below.

4.2.1 Site Induction

All workers must have successfully completed construction induction training prior to starting work at the site. A general construction induction training card or certification must be held. Construction induction training would contain an environmental component that would cover the following areas:

- Awareness of the purpose and objectives of the site CEMP.
- Awareness of legal requirements and individual accountability under environmental legislation applicable to the site, including penalties for offences under the POEO Act.
- Key environmental issues of the construction of the project including how the potential impacts are managed on site – management of dust and noise, daily site inspections.
- Understanding of the various roles and responsibilities, with relevance to procedures.
- Mitigation measures and controls.
- Incident response and reporting requirements.
- Safe Assembly Point – the location to meet in the event of an emergency evacuation.

Contractors should be inducted by the Site Manager, who would provide a tour of the site. All staff and contractors must complete a sign-in and sign-out register and must sign a document stating that they understand and agree to abide by the site's procedures.

4.2.2 Regular Site Meetings

Site meetings would be undertaken usually at the commencement of the day's activities and be undertaken at least weekly. The agenda for the meetings could include:

- Planned activities;
- Safe work practices; and
- Environmental protection practices and control measures.

Details of all environmental training need to be recorded, and should include, at the minimum: the date of when training was completed, the name of the person being trained, and the general content of the training program. Site meetings shall be recorded including the date and time the meeting took place, names of attendees and topics of discussion.

4.3 COMMUNICATION

The Project /Construction Manager and/or Site Manager would communicate with relevant stakeholders when required. Stakeholders may include community groups, sub-contractors, regulatory authorities, non-regulatory agencies and the State Government.



4.3.1 Community Relations

It is important to foster open communications with the other stakeholders of the site to ensure that an integrated approach is used to deal with issues which reflect on all stakeholders. Regular communications with adjacent facilities should be undertaken to ensure any environmental management issues from either party are addressed promptly.

4.3.1.1 Complaints Response

All complaints or enquiries should be handled in a courteous manner. Every complaint is a potential opportunity for improvement in environmental management. A procedure for handling complaints is provided below:

- Record in Log Book and on a Complaint Response Form:
 - ▶ Name of Complainant;
 - ▶ Address;
 - ▶ Telephone Number; and
 - ▶ Details of Complaint: date, time of occurrence, precise location of event.
- Connect/refer caller to one of the following staff members who are authorised to discuss the complaint with the caller:
 - ▶ Director/s; and
 - ▶ Personnel with environmental responsibilities.
- Authorised staff member requests details of the complaint or information required by the caller and completes the Complaint Response Form and the Complaint Response Logbook Index (provided in the following pages).
- If deemed required, undertaken investigations to determine any mitigation measures required to prevent a recurrence. Record details of any actions taken.

A Complaints Response Form has been provided in Attachment A3.

4.3.2 Regulatory Authorities

Communications with regulatory authorities, such as the local council, shall occur on an as-needed basis. All communication with regulatory authorities concerning environmental matters is to be noted and records of any subsequent actions appropriately filed.

4.3.3 Internal Communication

The site management is to establish simple yet effective communication channels for implementation of the CEMP. Typical methods of communication that may suit the size of the operation include the Weekly Site Meetings with formal records.

Document control and written communication would be necessary when new contractors or employees are trained or changes are made to the CEMP or any other matters that affect the holistic environmental management of the site during construction.



4.3.4 Response Actions for Pollution Incidents

Emergency and pollution incident situations shall be dealt with in accordance with the site-specific Emergency Plan (EP) and Pollution Incident Response Management Plan (PIRMP).

These plans identify potential emergency situations that may have an impact on the environment and details how to respond to them. Greenfields Resource Recovery Facility are required to prepare and implement a Pollution Incident Response Management Plan (PIRMP) under part 5.7A of the POEO Act.

In the event of a pollution incident, the first response of personnel on site based on their initial assessment is to phone 000 in an emergency.

Initial assessment needs to be made by ECO members present on site. If safe to do so:

1. Remove all persons from immediate danger
2. Secure the area
3. Commence evacuation and/or clean up

Under Part 5.7 of the POEO Act, a pollution incident that occurs in the course of an activity so that material harm to the environment is caused or threatened must be notified immediately to relevant authorities.

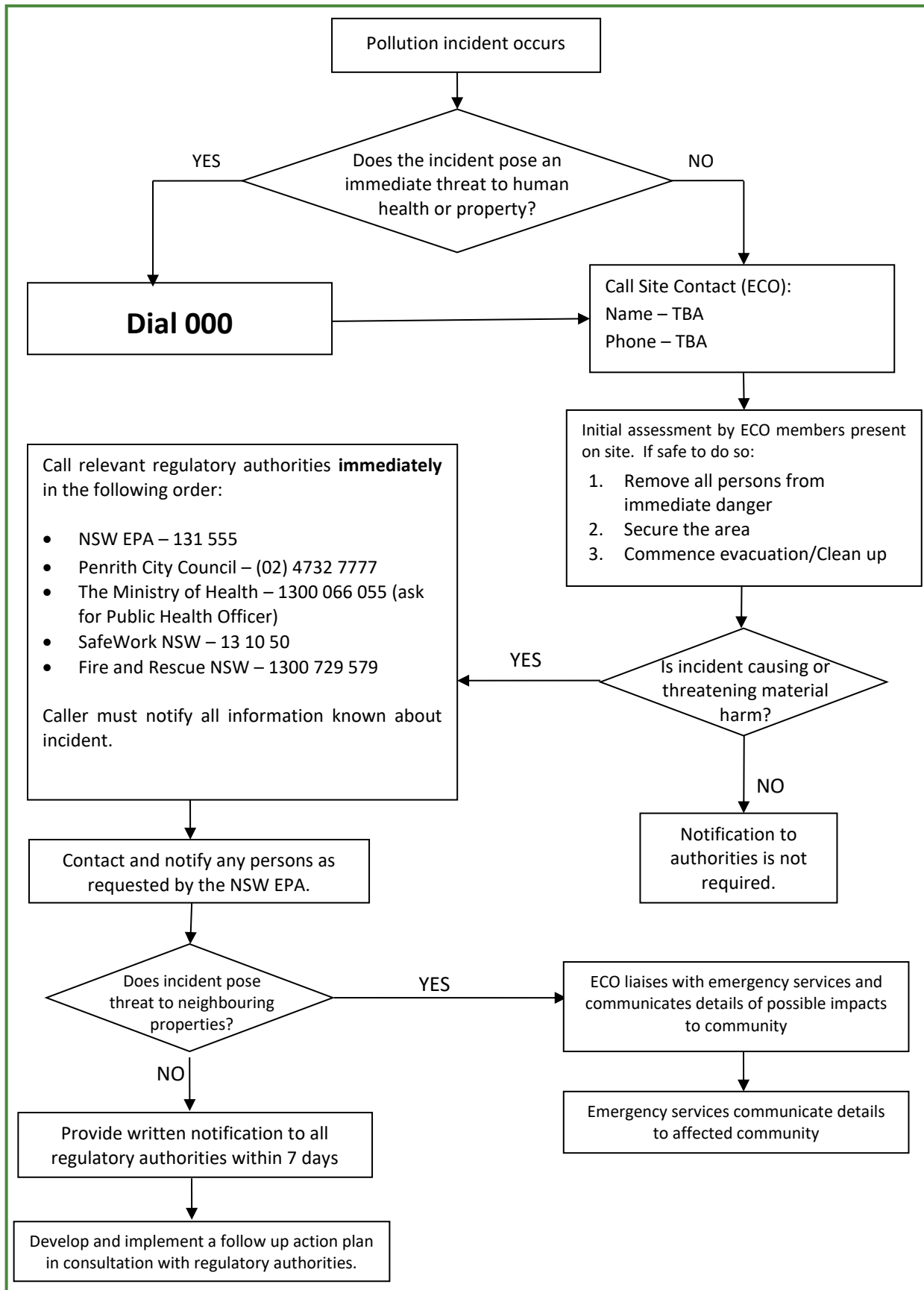
If the incident presents an immediate threat to human health or property, call 000 immediately. If the incident does not require emergency services, notify the following regulatory bodies, in order of relevance, as follows:

- | | |
|---|--|
| 1. NSW Environment Protection Authority | 131 555 |
| 2. Penrith City Council | (02) 4732 7777 |
| 3. The Ministry of Health | 1300 066 055 (ask for Public Health Officer) |
| 4. SafeWork NSW | 13 10 50 |
| 5. Fire and Rescue NSW | 1300 729 579 |

Training in incident and emergency procedures shall be provided to all staff in the induction process. This needs to include who to notify in the event of an emergency or a pollution incident with the potential to cause material harm to the environment.

A simple flowchart detailing how to respond in the event of a pollution incident is provided as Figure 4-2.

Figure 4-2: Pollution Incident Response Flowchart





4.3.5 Incident Reporting

Any accident, incident or potential incident *“with actual or potential significant off-site impacts on people or the biophysical environment”* needs to be recorded. An incident reporting form is provided in Attachment A3 to assist.

If required, Management may need to conduct an investigation to assess all hazards and risks, review all documentation associated with the incident and formulate a detailed report. The following details should be included in the report:

- Date and time of the incident;
- Cause, duration and specific location on site of the event/incident;
- The type, volume and concentration of every pollutant discharged or spilt as a result of the incident;
- Immediate action taken in relation to the event;
- The name, address and business hours telephone number those who witnessed the event;
- Any eyewitness accounts or additional reports resulting from the investigation into the incident;
- Major hazards and impacts as a result of the incident;
- Any remedial action taken in relation to the event including any follow up contact with complainants;
- Details of any actions to be taken or proposed to be taken to prevent or mitigate against a recurrence of such an event, who is responsible, and by when; and
- Any other relevant matters.

Records of any incident investigation reports and corrective actions (if required) must be maintained. An incident register is provided following the incident reporting form in Attachment A3 to assist.



5. MONITORING AND CORRECTIVE & PREVENTATIVE ACTIONS

This section details the monitoring and inspection plan to facilitate proper implementation, maintenance and due diligence of the CEMP. Corrective and preventative actions are also detailed to facilitate continuous improvement of environmental management across construction operations.

5.1 ENVIRONMENTAL INSPECTIONS

Regular inspections of the construction site would assess the adequacy of control measures implemented at the site, so that corrective and/or preventative action can be taken where required.

Weekly inspections are recommended. An Inspection Checklist as a procedure is provided in Attachment A4. This covers air quality and dust, noise, sediment and erosion controls, litter and general management of the site.

5.2 CEMP REVIEW

Throughout construction, certain circumstances may change and as a result, modifications and/or refinements to the project may be required. Therefore, a review of the CEMP is recommended to be undertaken following any project modifications.

The reviews shall be undertaken by the Project / Construction Manager and delegates and would need to consider the following:

- Changes to the works or program of works;
- Changes to legislation;
- Variations to licences, approvals, consents or permits;
- Any monitoring, inspection and audit results;
- Any pollution incidents or complaints; and
- The effectiveness of safeguards and controls.

Outcomes of the CEMP reviews may require modifications to the CEMP and related documentation.

5.3 CORRECTIVE AND PREVENTATIVE ACTIONS

This section of the CEMP details non-conformance with the CEMP, and corrective and preventative actions. Non-conformances include errors and deficiencies that can be identified through the Inspection Checklist, Environmental Monitoring results and/or from any complaints received in relation to construction activities. Non-conformances should be effectively logged and promptly resolved. Non-conformances are to be reviewed by site management who will coordinate the appropriate corrective and preventative actions to address the respective non-conformances. Site management will then inform any staff or contractors who are affected by significant non-conformances about the subsequent required actions.

5.3.1 Request for Corrective Action



Corrective Actions are an ideal way to demonstrate and account for any issues and improvements to the CEMP. A Corrective Action Request (CAR) should be issued and processed using a CAR form provided overleaf. This form can be initiated by any staff member, and should be passed to the appropriate staff or contractors responsible for the source of the non-conformance. Different events often initiate a CAR being raised, some typical ones follow:

- Council or other regulatory agency direction or request;
- Detection of non-conformances during site inspection;
- Public complaints;
- Periodic meetings; and/or
- Environmental incident or near miss.

Site management shall ensure that CARs are actioned within a reasonable time frame. Records shall be maintained by the site management for all relevant corrective actions.

A Corrective & Preventative Action form is provided in Attachment A3.

5.4 RECORDS

Records relating to non-conformances, and their corrective and/or preventive action request forms, are to be maintained by site management. Reports and records concerning any monitoring results, regular inspections, staff training and correspondence with any regulatory authorities should also be maintained and archived.

All records are to be kept and complied in the office on site, as access to these records may occasionally be required by stakeholders and by regulatory authorities.

This concludes the CEMP.

A handwritten signature in blue ink, appearing to read 'M Taylor'.

Matthew Taylor
Environmental Scientist

A handwritten signature in blue ink, appearing to read 'R T Benbow'.

R T Benbow
Principal Consultant



6. LIMITATIONS

Our services for this project are carried out in accordance with our current professional standards for site assessment investigations. No guarantees are either expressed or implied.

This report has been prepared solely for the use of Greenfields Resource Recovery Facility, as per our agreement for providing environmental services. Only Greenfields Resource Recovery Facility is entitled to rely upon the findings in the report within the scope of work described in this report. Otherwise, no responsibility is accepted for the use of any part of the report by another in any other context or for any other purpose.

Although all due care has been taken in the preparation of this study, no warranty is given, nor liability accepted (except that otherwise required by law) in relation to any of the information contained within this document. We accept no responsibility for the accuracy of any data or information provided to us by Greenfields Resource Recovery Facility for the purposes of preparing this report.

Any opinions and judgements expressed herein, which are based on our understanding and interpretation of current regulatory standards, should not be construed as legal advice.

ATTACHMENTS

Attachment A1: Legal Register



Attachment A1: Legal and Other Requirements

Legislation	Activity / Aspect	Section / Clause	Requirements	Comments
Environmental Planning and Assessment Act 1979	All	All	Comply with development consent conditions as set out by Penrith City Council	Compliance with all development consent conditions is required once consent is issued.
Protection of the Environment Operations Act 1997	Environmental Harm	S115 S116 S117	<p>The principal objective of the legislation is to avoid causing environmental harm. Harm is defined in the Act as being:</p> <p><i>“harm”, in relation to the environment includes any direct or indirect alteration of the environment that has the effect of degrading the environment and, without limiting the generality of the above includes any act or omission that results in pollution.</i></p> <p><i>“Pollution” means:</i></p> <p>(a) water pollution, or (b) air pollution, or (c) noise pollution, or (d) land pollution.</p> <p>Clause 115 relates to the offence for wilful or negligent disposal of waste likely to harm the environment. Clause 116 relates to offences for wilful or negligent causing leaks, spills or escapes of substances likely to harm the environment. Clause 117 relates to offences for wilful or negligent emission of ozone depleting substances likely to harm the environment.</p>	<p>The implementation of the CEMP would ensure that the environmental impacts of the activities taking place on site are minimised.</p> <p>Safeguards and procedures would ensure that site operations avoid causing environmental harm or pollution.</p>



Legislation	Activity / Aspect	Section / Clause	Requirements	Comments
	Water Pollution	S120 S123	<p>Clause 120 relates to the prohibition of pollution of waters: <i>A person who pollutes any waters is guilty of an offence.</i></p> <p>Clause 123 details the maximum penalty for water pollution offences. Tier 2 penalties apply. <i>A person who is guilty of an offence under this Part is liable, on conviction.</i></p>	<p>Applies. Potential for pollution to water is associated with excavations and general work.</p> <p>An Erosion, Sediment and Stormwater Management Procedure and ESCP is included in Attachment A4 to address potential pollution to water.</p> <p>Responsibility extends to all employees. If found guilty of a water pollution offence, both the company and the individual can be held liable.</p>



Legislation	Activity / Aspect	Section / Clause	Requirements	Comments
	Air Pollution and Odour	Part 5.4	<p>Clause 124 relates to the operation of plant (other than domestic plant): <i>The occupier of any premises who operates any plant in or on those premises in such a manner as to cause air pollution from those premises is guilty of an offence if the air pollution so caused, or any part of the air pollution so caused, is caused by the occupier's failure:</i></p> <p style="padding-left: 40px;">(a) to maintain the plant in an efficient condition, or (b) to operate the plant in a proper and efficient manner.</p> <p>Clause 125 relates to maintenance work on plant. Clause 126 relates to dealing with materials. Clause 128 relates to standards of air impurities not to be exceeded. Clause 129 relates to the emission of odours from licensed premises.</p> <p>Clause 132 details the maximum penalty for air pollution offences. Tier 2 penalties apply. <i>A person who is guilty of an offence under this Division is liable, on conviction</i></p>	<p>Potential for air pollution to occur is associated with dust generation from construction works.</p> <p>An Air Quality Management Procedure has been included in this CEMP to address potential air pollution issues (Attachment A4).</p> <p>Responsibility extends to all employees. If found guilty of an air pollution offence, both the company and the individual can be held liable.</p>



Legislation	Activity / Aspect	Section / Clause	Requirements	Comments
	Noise Pollution	S139 S140 S141	<p>Clause 139 relates to the operation of plant: <i>The occupier of any premises who operates any plant (other than control equipment) at those premises in such a manner as to cause the emission of noise from those premises is guilty of an offence of the noise so caused, or any part of it, is caused by the occupier's failure:</i></p> <p>(a) <i>To maintain the plant in an efficient condition, or</i> (b) <i>To operate the plant in a proper and efficient manner.</i></p> <p>Clause 140 relates to dealing with materials: <i>The occupier of any premises who deals with materials in or on premises in such a manner as to cause the emission of noise from those premises is guilty of an offence if the noise so caused, or any part of it, is caused by the occupier's failure to deal with those materials in a proper and efficient manner.</i></p> <p>Clause 141 details the maximum penalty for noise offences. Tier 2 offences apply.</p> <p><i>A person who is guilty of an offence under this Part is liable, on conviction.</i></p>	<p>Applies.</p> <p>A Noise and Vibration Management Procedure has been included in this CEMP to address potential noise pollution issues (Attachment A4).</p>
	Land Pollution	S142A	<p>Clause 142A relates to the pollution of land. Tier 2 penalties apply. <i>A person who pollutes land is guilty of an offence.</i></p>	<p>A Waste Management Procedure and an Unexpected Finds Protocol to address potential land pollution issues has been included in Attachment A4.</p>



Legislation	Activity / Aspect	Section / Clause	Requirements	Comments
	Waste	S88 S143 S144 S145	<p>Waste needs to be disposed of in a manner which does not create or is likely to create environmental harm.</p> <p>Clause 88 relates to waste facilities required to pay EPA contributions in respect of all waste received at the facility.</p> <p>Clause 143 relates to the unlawful transporting or depositing of waste:</p> <p><i>If a person transports waste to a place that cannot lawfully be used as a waste facility for that waste, or causes or permits waste to be so transported:</i></p> <p><i>(a) the person, and</i></p> <p><i>(b) if the person is not the owner of the waste, the owner, are each guilty of an offence.</i></p> <p>Clause 144 deals with the use of land as waste facility without lawful authority:</p> <p><i>(1) A person who is the owner or occupier of any land and who uses the land, or causes or permits the land to be used, as a waste facility without lawful authority is guilty of an offence.</i></p> <p><i>(2) In any proceedings for an offence under this section the defendant bears the onus of proving that there is lawful authority to use the land concerned as a waste facility.</i></p> <p><i>All waste must be classified in accordance with the EPA's Waste Classification Guidelines.</i></p>	<p>The generation of waste requires appropriate management.</p> <p>Any waste disposal required must be undertaken in accordance with the NSW EPA's <i>Waste Classification Guidelines</i>.</p> <p>A Waste Management Procedure is included in Attachment A4.</p> <p>All waste should be stored in an environmentally safe manner.</p> <p>False or misleading information regarding pollution incidents is an offence under the Act.</p>



Legislation	Activity / Aspect	Section / Clause	Requirements	Comments
	Duty to notify pollution incidents	S148	<p>Clause 148 <i>Pollution incidents causing or threatening material harm to be notified.</i></p> <ul style="list-style-type: none"> <i>Kinds of incidents to be notified</i> <i>This Part applies where a pollution incident occurs in the course of an activity so that material harm to the environment is caused or threatened.</i> <i>Duty of person carrying on activity to notify</i> <i>A person carrying on the activity must, immediately after the person becomes aware of the incident, notify each relevant authority of the incident and all relevant information about it.</i> 	In the event of an incident, the duty to notify extends to all staff and contractors of the site. Staff and/or contractors are required to notify the employer. When management is not contactable, they are required to notify the relevant authorities. Refer to Reporting Requirements in Section 4.3.5 of the CEMP.
	Control equipment	S167	Clause 167 relates to the responsibility of the occupier of any premises to maintain and operate any control equipment installed at the premises in a proper and efficient manner.	This includes erosion, sediment and dust controls during construction.
Protection of the Environment Operations (Waste) Regulation 2014	Waste and transport	Part 4 Part 5	<p>Part 4 relates to the tracking of certain waste transported within, out of and into NSW.</p> <p>Part 5 relates to reporting on transportation of waste from NSW to an interstate waste facility if the waste has been generated in the metropolitan levy area.</p>	Waste requiring tracking is not expected to be discovered during works. However, if trackable waste is discovered at the site, it requires tracking if being transported.
	Asbestos	Part 7	Relates to the requirements for transportation and management of asbestos waste.	Applies if asbestos is found.
Water Management Act 2000	Water access licence	S56 S60A S89 S91A	<p>A licence may be required in the relevant water sharing plan area for the right to share available water from a particular water source.</p> <p>Water cannot be taken from a waterbody without a licence.</p>	Does not apply



Legislation	Activity / Aspect	Section / Clause	Requirements	Comments
	Water management works	S90 S91B S91C S91D	Approval is required for construction and/or use of a water supply work, drainage work or flood work.	Does not apply
	Waterfront land	S91	A controlled activity approval is required for works on or under waterfront land.	Does not apply
Water Act 1912	Surface water	S10	A licence or permit may be required for the taking and using of water from a stream or river, capture of water in a farm dam.	Does not apply
Applies to water sources in NSW where water sharing plans have not commenced.	Groundwater	S112	A licence may be required for extraction of groundwater.	Does not apply
Contaminated Land Management Act 1997	Reporting contamination	S60	Clause 60 relates to the duty of a person undertaking activities that have contaminated land and the land owner to report contamination.	Applies upon discovery and/or incident.
Noxious Weeds Act 1993	Weed control & reporting	S12 S15	Clause 12 relates to private occupiers of land responsibility to control noxious weeds on land. Clause 15 requires occupiers of land to notify local control authority of notifiable weeds.	Applies upon discovery.
Biodiversity Conservation Act 2016 No 63	Protection of animals and plants	Part 2	Clause 2.1 relates to offences for harming animals that are a threatened species, part of a threatened ecological community or a protected animal. Clause 2.2 relates to offences for picking plants. Clause 2.3 and 2.4 relate to offences for damaging areas of outstanding biodiversity and habitat of threatened species or ecological community.	Applies upon discovery.
	Clearing of native vegetation	S2.11	A licence will be require if the intended activities are likely to cause harm or damage to threatened species, populations or ecological communities, or to their habitats.	Does not apply.



Legislation	Activity / Aspect	Section / Clause	Requirements	Comments
Environment Protection and Biodiversity Conservation Act 1999 (Cth)	Flora and fauna conservation	Part 13	A permit is required for activities that will affect listed species and ecological communities within a commonwealth area.	Does not apply.
Heritage Act 1977	Heritage	S57 S139 S146	Clause 57 requires approval for work to any item to which an interim heritage order or listing on the state heritage register applies. Clause 139 requires that an excavation permit is required to disturb any land knowing or having reasonable cause to suspect disturbance may uncover a relic. Clause 146 requires that discovery of a relic must be notified to the Heritage Council.	Site not heritage listed.
Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Cth)	Protection of places and objects	S20 S22	Clause 20 relates to reporting of any discovery of Aboriginal remains to the Minister. Clause 22 requires compliance with the provisions of any declaration in relation to a significant Aboriginal area or object.	Applies on discovery
Waste Avoidance and Resource Recovery Act, 2001	Waste	S3	The primary objectives of the act in relation to site activities are: <ul style="list-style-type: none"> to encourage the most efficient use of resources and to reduce environmental harm in accordance with the principles of ecologically sustainable development; to provide for the continual reduction in waste generation; to minimise the consumption of natural resources and the final disposal of waste by encouraging the avoidance of waste and the reuse and recycling of waste; and To establish a hierarchy of resource management options: <ol style="list-style-type: none"> avoidance of unnecessary resource consumptions, Resource recovery (including reuse, reprocessing, recycling and energy recovery) Disposal. 	The Waste Management Procedure (Attachment A4) identifies areas where waste is to be reduced or reused.



Legislation	Activity / Aspect	Section / Clause	Requirements	Comments
Work Health and Safety Regulation 2017	Construction Induction Training	Part 6.5	Part 6.5 requires workers to be given general construction induction training.	Environmental elements of induction training are provided in Section 4.2 of the CEMP.
Dangerous Goods (Road and Rail Transport) Act 2008	Transport of dangerous goods	S9	Clause 9 requires transport of dangerous goods by road or rail to be in a safe manner.	No significant quantities of dangerous goods will be stored on site during construction.
National Greenhouse and Energy Reporting Act 2007 and Regulations 2008 Fisheries Management Act 1994	Greenhouse Gas emissions	S13	Requirement for the accounting and reporting of greenhouse gases and energy consumed during construction if the project meets the thresholds in Clause 13.	Does not apply.
	Permits	S144 S201 S205 S219	Clause 144: Aquaculture permit Clause 201: Permit to carry out dredging or reclamation work Clause 205: Permit to cut, remove, damage or destroy marine vegetation on public water land or an aquaculture lease, or on the foreshore of any such land or lease. Clause 219: Permit to: (a) set a net, netting or other material, or (b) construct or alter a dam, floodgate, causeway or weir, or (c) otherwise create an obstruction, across or within a bay, inlet, river or creek, or across or around a flat	Does not apply.



Table A1-1: Licences, Approvals and Permits

Type	Relevant Legislation	Required?	Agency
LICENCES			
Environment Protection Licence	Schedule 1 of the Protection of the Environment Operations Act 1997	Yes ¹	NSW EPA
Surface Water Licence	Water Act 1912	No	Office of Water
Groundwater Licence	Water Act 1912	No	Office of Water
Water Access Licence	Water Management Act 2000	No	Office of Water
PERMITS			
Permits under the Fisheries Management Act	Fisheries Management Act 1994	No	DPI Fishing and Aquaculture
Aboriginal Heritage Impact Permit	National Parks & Wildlife Act 1974	No	OEH
Permits under the Heritage Act 1977	Heritage Act 1977	No	OEH
APPROVALS			
Development Consent	Environmental Planning and Assessment Act 1979	Yes	Penrith City Council
Alter or erect improvements within a mine subsidence district	Mine Subsidence Compensation Act 1961	No	Mine Subsidence Board
Consent for works and structures in a public road	Roads Act 1993	No	RMS
Sub-division or development of bush fire prone land	Rural Fires Act 1997	Yes	Commissioner of the NSW Rural Fire Service

1. For scheduled development work which is work at any premise at that is designed to enable scheduled activities to be carried on at the premises.

Attachment A2: Environmental Aspects Register



Environmental Aspects Register

Activity	Aspect	Potential Impacts on the Environment	Pre-Control Risk			Mitigation Measures (Physical, Procedures and Plans)	Post-Control Risk		
			Consequence	Likelihood	Raw Risk		Consequence	Likelihood	Residual Risk
SITE ESTABLISHMENT	Installation of sediment control measures & tree protection measures	Excessive waste generation	2	D	L	Waste Management Procedure (Procedure No. 4) Regular Site Inspection Procedure (Procedure No. 9)	1	D	L
		Excessive noise from mobile vehicles and material movements	2	D	L	Noise and Vibration Management Procedure (Procedure No. 2) Regular Site Inspection Procedure (Procedure No. 9)	1	E	L
		Impacts to flora and fauna	2	C	M	Flora and Fauna Management Procedure (Procedure No. 7) Regular Site Inspection Procedure (Procedure No. 9)	1	C	L
	Installation of construction facilities, fencing etc.	Excessive noise from mobile vehicles and material movements	2	D	L	Noise and Vibration Management Procedure (Procedure No. 2) Regular Site Inspection Procedure (Procedure No. 9)	1	E	L
		Excessive waste generation	2	C	M	Waste Management Procedure (Procedure No. 4) Regular Site Inspection Procedure (Procedure No. 9)	1	C	L
		Impacts to flora and fauna	2	C	M	Flora and Fauna Management Procedure (Procedure No. 7) Regular Site Inspection Procedure (Procedure No. 9)	1	C	L
DEMOLITION & TREE REMOVAL	Demolition of existing infrastructure (one small shed & removal of trees)	Excessive dust generation	2	C	M	Air Quality Management Procedure (Procedure No. 1) Regular Site Inspection Procedure (Procedure No. 9)	1	D	L
		Excessive noise generation	3	C	M	Noise and Vibration Management Procedure (Procedure No. 2) Regular Site Inspection Procedure (Procedure No. 9)	2	D	L
		Sediment laden runoff discharging offsite	3	B	H	Erosion, Sediment & Stormwater Management Procedure (Procedure No. 3) Regular Site Inspection Procedure (Procedure No. 9)	3	D	L
		Excessive waste generation	2	C	M	Waste Management Procedure (Procedure No. 4) Regular Site Inspection Procedure (Procedure No. 9)	1	C	L



Activity	Aspect	Potential Impacts on the Environment	Pre-Control Risk			Mitigation Measures (Physical, Procedures and Plans)	Post-Control Risk		
			Consequence	Likelihood	Raw Risk		Consequence	Likelihood	Residual Risk
		Impacts to flora and fauna	2	C	M	Flora and Fauna Management Procedure (Procedure No. 7) Regular Site Inspection Procedure (Procedure No. 9)	1	C	L
EXCAVATION WORKS	Truck movements, unloading of materials and equipment	Sediment laden runoff discharging offsite	3	B	H	Erosion, Sediment & Stormwater Management Procedure (Procedure No. 3) Regular Site Inspection Procedure (Procedure No. 9)	3	D	L
		Excessive noise generation	2	C	M	Noise and Vibration Management Procedure (Procedure No. 2) Regular Site Inspection Procedure (Procedure No. 9)	2	D	L
		Excessive dust generation	2	C	M	Air Quality Management Procedure (Procedure No. 1) Regular Site Inspection Procedure (Procedure No. 9)	2	D	L
		Tracking of mud/sediment onto roads	3	B	H	Control the tracking of mud and soil material onto local roads using wheel wash Erosion, Sediment & Stormwater Management Procedure (Procedure No. 3) Regular Site Inspection Procedure (Procedure No. 9)	1	C	L
		Impacts to flora and fauna	2	C	M	Flora and Fauna Management Procedure (Procedure No. 7) Regular Site Inspection Procedure (Procedure No. 9)	1	C	L
	Storage and management of excavated material	Excessive dust generation	2	C	M	Air Quality Management Procedure (Procedure No. 1) Regular Site Inspection Procedure (Procedure No. 9)	2	C	M
		Excessive noise generation	1	D	L	Noise and Vibration Management Procedure (Procedure No. 2) Regular Site Inspection Procedure (Procedure No. 9)	1	D	L
		Impacts to flora and fauna	2	C	M	Flora and Fauna Management Procedure (Procedure No. 7) Regular Site Inspection Procedure (Procedure No. 9)	1	C	L



Activity	Aspect	Potential Impacts on the Environment	Pre-Control Risk			Mitigation Measures (Physical, Procedures and Plans)	Post-Control Risk		
			Consequence	Likelihood	Raw Risk		Consequence	Likelihood	Residual Risk
		Excessive noise generation	2	C	M	Noise and Vibration Management Procedure (Procedure No. 2) Regular Site Inspection Procedure (Procedure No. 9)	2	D	L
MATERIALS DELIVERY, TRANSFER & STORAGE	Temporary construction material storage	Excessive dust generation (wind erosion)	2	C	M	Air Quality Management Procedure (Procedure No. 1) Regular Site Inspection Procedure (Procedure No. 9)	2	D	L
	Site clean-up and disposal of waste	Excessive waste generation	2	C	M	Waste Management Procedure (Procedure No. 4) Regular Site Inspection Procedure (Procedure No. 9)	1	D	L
		Sediment laden runoff discharging offsite	3	B	H	Erosion, Sediment & Stormwater Management Procedure (Procedure No. 3) Regular Site Inspection Procedure (Procedure No. 9)	2	D	L
		Excessive waste generation – surplus materials, packaging	1	D	L	Waste Management Procedure (Procedure No. 4) Regular Site Inspection Procedure (Procedure No. 9)	1	D	L
		Local traffic issues due to construction vehicle movements	1	B	L	Construction Traffic Management Plan Traffic Management Procedure (Procedure No. 5)	1	D	L
		Impacts to flora and fauna	2	C	M	Flora and Fauna Management Procedure (Procedure No. 7) Regular Site Inspection Procedure (Procedure No. 9)	1	C	L
CONSTRUCTION OF RESOURCE RECOVERY FACILITY	Construction activities associated with the resource recovery facility	Sediment laden runoff from removal of construction material stockpiles	3	B	H	Erosion, Sediment & Stormwater Management Procedure (Procedure No. 3) Regular Site Inspection Procedure (Procedure No. 9)	2	D	L
	Fit out and establishing of internal infrastructure/equipment	Excessive noise generation	2	D	L	Noise and Vibration Management Procedure (Procedure No. 2) Regular Site Inspection Procedure (Procedure No. 9)	1	E	L
		Excessive waste generation	1	D	L	Waste Management Procedure (Procedure No. 4) Regular Site Inspection Procedure (Procedure No. 9)	1	D	L



Activity	Aspect	Potential Impacts on the Environment	Pre-Control Risk			Mitigation Measures (Physical, Procedures and Plans)	Post-Control Risk		
			Consequence	Likelihood	Raw Risk		Consequence	Likelihood	Residual Risk
		Impacts to flora and fauna	2	C	M	Flora and Fauna Management Procedure (Procedure No. 7) Regular Site Inspection Procedure (Procedure No. 9)	1	C	L
FINISHING WORKS	Removal and decommissioning of construction facilities	Excessive noise generation	2	D	L	Noise and Vibration Management Procedure (Procedure No. 2) Regular Site Inspection Procedure (Procedure No. 9)	1	E	L
		Excessive waste generation	1	D	L	Waste Management Procedure (Procedure No. 4) Regular Site Inspection Procedure (Procedure No. 9)	1	D	L
		Impacts to flora and fauna	2	C	M	Flora and Fauna Management Procedure (Procedure No. 7) Regular Site Inspection Procedure (Procedure No. 9)	1	C	L

Notes:

L = Low M = Medium H = High V = Very High

Raw risk is the risk of the identified potential impacts without controls in place
Residual risk is the risk assessed once controls and procedures are in place.

Attachment A3: Environmental Forms

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

FORMS

Greenfields Resource Recovery Facility

344 Park Road, Wallacia NSW 2745

Issued and Approved by:

Date:

Document Reference: 191318-03_CEMP_Att A3_Forms

Date of Issue: 16 July 2021

Prepared by:



Benbow
ENVIRONMENTAL

Head Office: 25-27 Sherwood Street Northmead NSW 2152 AUSTRALIA
Tel: 61 2 9896 0399 Fax: 61 2 9896 0544

Email: admin@benbowenviro.com.au

Visit our website: www.benbowenviro.com.au

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Contents

Forms	Page
1.1 Incident Report Form	1
1.2 Complaints Response Form	3
1.3 Corrective & Preventative Action Form	6
1.4 Induction Training Form	7





NO:	F1.1	DATE:	July 21
PREPARED BY:	Benbow Environmental	ISSUE NO.:	1
SUBJECT:	1.1 INCIDENT REPORT FORM		

INCIDENT REPORTING – BASIC FACTS	FORM
---	-------------

Date & Time of Incident:

Site Address:

Reference No.

Expected cause, duration & specific location of the event/incident:

The type, volume and concentration (if known) of every pollutant discharged or spilt as a result of the incident:

Immediate action taken in relation to the event:

The name, address and telephone number of any witnesses of the event:

Any other relevant matters:

I verify that all the information provided herein is a true and accurate of the events that have occurred.

Signed:

Name:

Date:



INCIDENT REPORTING			REGISTER
Date	Reference No.*	Nature & cause of the incident	Verification of corrective / preventative actions
			I verify that all the nominated corrective and preventative actions have been implemented effectively. Signed:..... Name: Date:
			I verify that all the nominated corrective and preventative actions have been implemented effectively. Signed:..... Name: Date:
			I verify that all the nominated corrective and preventative actions have been implemented effectively. Signed:..... Name: Date:
			I verify that all the nominated corrective and preventative actions have been implemented effectively. Signed:..... Name: Date:
			I verify that all the nominated corrective and preventative actions have been implemented effectively. Signed:..... Name: Date:
			I verify that all the nominated corrective and preventative actions have been implemented effectively. Signed:..... Name: Date:
			I verify that all the nominated corrective and preventative actions have been implemented effectively. Signed:..... Name: Date:

* The reference number quoted would reference related incident reports with details of each incident.



NO: EP1.2 **DATE:** July 21
PREPARED BY: Benbow Environmental **ISSUE NO.:** 1
SUBJECT: 1.2 COMPLAINTS RESPONSE FORM

REF:

REV: 1

LOG BOOK REFERENCE NO:

DATE:TIME:AM/PM

NAME OF PERSON WHO RECEIVED CALL:

NAME OF COMPLAINANT:TELEPHONE NO:

ADDRESS:

DETAILS OF COMPLAINT:

DATE OF OCCURANCE:TIME AM/PM:

TYPE OF INCIDENT:

NOISE ☐

STORMWATER ☐

AIR EMISSIONS ☐

ODOUR ☐

TRAFFIC/TRANSPORT ☐

FIRE ☐

EROSION/SEDIMENT ☐

WASTE ☐

OTHER ☐ DETAILS:

PRECISE LOCATION OF INCIDENT:

PARTICULAR DETAILS RELATING TO THE INCIDENT:

.....

.....



COMPLAINTS RESPONSE FORM

PAGE 2 OF 2

ACTION TAKEN:

COMPLAINANT TRANSFERRED TO:

MESSAGE TAKEN FOR:

CORRECTIVE AND PREVENTATIVE ACTION:

INFORMATION BULLETIN SENT

☐

COMPLAINT INVESTIGATED BY:CPAR NO.....

RESULTS OF INVESTIGATION:

.....

.....

.....

ON COMPLETION OF CORRECTIVE AND PREVENTATIVE ACTION:

LETTER SENT TO COMPLAINANT YES NO N/A DATE:

WORK PRACTICE MODIFIED YES NO N/A DATE:

COMPLAINT RESPONSE COMPLETE:

PRINT NAME

SIGNATURE:

DATE:

TIME:AM/PM

[illegible]



NO: EP1.3 **DATE:** July 21
PREPARED BY: Benbow Environmental **ISSUE NO.:** 1
SUBJECT: **1.3 CORRECTIVE & PREVENTATIVE ACTION FORM**

REF:

REV: 1

☐

CORRECTIVE ACTION

☐

PREVENTATIVE ACTION

Name of personnel requesting
corrective/preventative action:

Signature:

.....

.....

Personnel responsible for action:

Date:

.....

.....

Outline of the 'Initiating Event' and necessary corrective and/or preventative actions (to be filled out by those requesting action):

.....
.....
.....
.....

Actions taken to fulfil the requirement of the corrective and/or preventative action:

.....
.....
.....
.....

Corrective and/or preventative action complete:

Signature:

Date:



NO: F1.4
PREPARED BY: Benbow Environmental
SUBJECT: **1.4 INDUCTION TRAINING FORM**

DATE: July 21
ISSUE NO.: 1

INDUCTION TRAINING

FORM

This is to certify that _____ (name) has completed induction training relating to the construction works for the Greenfields Resource Recovery Facility and is competent in the following areas.

Training Completed:

(Tick)

- Awareness of the purpose and objectives of the site CEMP. ☐
- Awareness of legal requirements and individual accountability under environmental legislation applicable to the site, including penalties for offences under the POEO Act. ☐
- Key environmental issues of the construction of the project including how the potential impacts are managed on site – management of dust and noise, control of sedimentation and erosion, protection of vegetation and any “no go zones”, and weekly site inspections. ☐
- Understanding of the various roles and responsibilities, with relevance to procedures. ☐
- Unexpected Finds Protocol; ☐
- Mitigation measures and controls. ☐
- Incident response and reporting requirements. ☐

I verify that I understand the information provided herein as part of the induction training and agree to abide by the site’s procedures.

Signed:

Name:

Date:

Confirmed by _____ (Name of person providing training)

Signed:

Date:

Attachment A4: Environmental Procedures Manual

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

ENVIRONMENTAL PROCEDURES MANUAL

Greenfields Resource Recovery Facility

344 Park Road, Wallacia NSW 2745

Issued and Approved by:

Date:

Document Reference: 191318-03_CEMP_Att A4_Env Proc

Date of Issue: 16 July 2021

Prepared by:



Head Office: 25-27 Sherwood Street, Northmead NSW 2152
AUSTRALIA

Tel: 61 2 9896 0399 Fax: 61 2 9896 0544

Email: admin@benbowenviro.com.au

Visit our website: www.benbowenviro.com.au

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Contents

Procedure No.	Page
1. AIR QUALITY MANAGEMENT	1
1.1 Purpose	1
1.2 Procedure	1
1.2.1 General Site Activities	1
1.2.2 Earthworks and Excavation	1
1.2.3 Waste Storage	2
1.2.4 On-site Vehicle Traffic	2
1.2.5 Transport of Materials and Wastes	2
1.3 Dust Monitoring	2
1.4 Inspection and Records	3
2. NOISE AND VIBRATION MANAGEMENT	4
2.1 Purpose	4
2.2 Procedure	4
2.2.1 Operational Hours	4
2.2.2 Construction Plant & Equipment	4
2.2.3 General Site Activities	5
2.2.4 Vehicle Movements	5
2.2.6 Additional Noise Mitigation Measures	5
2.4 Inspection and Records	6
3. EROSION, SEDIMENT & STORMWATER MANAGEMENT	7
3.1 Purpose	7
3.2 Nearest Watercourse	7
3.3 Procedure	8
3.3.3 Temporary Stockpiles	9
3.4 Inspection and Records	10
4. WASTE MANAGEMENT	11
4.1 Purpose	11
4.2 Procedure	11
4.2.1 Demolition Waste	11
4.2.2 Construction Waste	12
4.2.3 General Waste Procedures	13
4.2.4 Excavated Materials, Spoil and Stockpiles	14
4.2.5 Chemical Waste Procedures	14
4.2.6 Waste Documentation Procedures	14
4.3 Inspection and Records	16
5. UNEXPECTED FINDS PROTOCOL	17
5.1 Purpose	17
5.2 Definitions	17
5.3 Procedure	17
6. CONSTRUCTION TRAFFIC MANAGEMENT PROCEDURE	19

7.	FLORA AND FAUNA PROCEDURE	20
9.	SPILL PROCEDURE	23
9.1	Purpose	23
9.2	Definitions	23
9.3	Procedures	24
9.3.1	For Minor Spillage <50 L	24
9.3.2	For Major Spillage >50 L	25
9.4	Inspection and Records	26
10.	REGULAR SITE INSPECTION	27
10.1	Purpose	27
10.2	Procedure	27





PROCEDURE NAME:	AIR QUALITY MANAGEMENT	DATE:	July 21
PREPARED BY:	Benbow Environmental	ISSUE NO.:	1

1. AIR QUALITY MANAGEMENT

1.1 PURPOSE

The purpose of this procedure is to set out the process relating to management and visual monitoring of air emissions during construction activities.

Dust is one of the main sources of complaint against construction works. The following practices should be implemented to minimise dust emissions from site activities.

1.2 PROCEDURE

1.2.1 General Site Activities

- Monitor local weather conditions: cease excavations and earth moving operations when strong wind conditions result in visible dust emissions, either until implementation of mitigation measures is adequately controlling dust or until weather conditions improve.
- Stage works to minimise areas of disturbance at any one time.
- Install physical sediment barrier fences around the construction zone.
- Stabilised site access should be installed and maintained to prevent dust and dirt being transported by vehicles entering and exiting the site.
- Erection of wind breaks such as fences at the site boundary and around stockpiles, where necessary, to reduce the possibility for particles to become airborne.
- At all times and in particular during windy and dry weather, large unprotected areas will be kept moist (not wet) by sprinkling with water to keep dust under control.
- Any sand used in the concrete curing process (spread over the surface) shall be removed as soon as possible and within 10 working days from placement.

1.2.2 Earthworks and Excavation

- Minimise area of soil disturbance.
- Install temporary covers over areas of earthworks where possible.
- Minimise drop heights of materials.
- Stabilise disturbed areas as soon as practicable.
- Suppression of visible dust emissions from exposed surfaces by regular watering using water sprays.
- Excavated material analysis and classification will be undertaken by a suitably qualified environmental consultant and disposed of accordingly.



1.2.3 Waste Storage

- Any waste from construction activities (not including excavated material) is to be stored in designated skip bins allocated for specific waste types.
- All waste bins must be tarped or covered outside construction hours and during strong winds.

1.2.4 On-site Vehicle Traffic

- Minimise movement of construction traffic around the site by restricting vehicles to specific routes.
- Enforce appropriate speed limits for vehicles on site. Recommended speed limit is <15 km/hr.
- Sweep trafficable surfaces regularly to minimise build-up of sediments.
- Use wet cleaning methods such as regular watering to prevent the build-up of dusts on trafficked site surfaces.
- Ensure proper maintenance of vehicle engines.
- Limit idling time of vehicles – engines should be switched off.

1.2.5 Transport of Materials and Wastes

- Cover all loads entering and leaving the site.
- Provide a stabilised site access point to the construction area of the site to ensure that trucks do not track dirt onto public roads.
- Vehicles leaving the site to be cleaned of dirt and other materials to avoid tracking onto public roads. For this purpose, a tap and hose should be provided behind the sediment barrier fence line.
- Ensure public roads used by construction vehicles are kept clean.

1.3 DUST MONITORING

A Checklist that addresses dust control as well as other environmental matters has been provided in the Regular Site Inspection Procedure to aid the implementation of air quality control measures on site. It is recommended that the proponent review this checklist once the specific details and works schedule of the construction phase are finalised.

Continual visual observation of dust levels is required by site workers in order to determine the appropriate measure of dust control necessary for the particular site activities being undertaken under the prevailing meteorological conditions. The checklist should be adjusted accordingly in relation to dust where additional control measures are deemed necessary. If results of the inspections indicate visual emissions of dust are evident, more stringent controls should be enforced.

Should inspections indicate persistent visual emissions or complaints regarding dust be received, dust monitoring undertaken by a qualified environmental consultant is recommended.



1.4 INSPECTION AND RECORDS

Results of the regular site inspections need to be maintained.

Any issues or non-conformances noted during workplace inspections must be recorded. Documentation for any corrective and preventative actions must also be maintained, as described in the *Corrective and Preventative Actions* section of the CEMP. Any other relevant records must also be kept for inspection by regulatory authorities.



PROCEDURE NAME: NOISE MANAGEMENT

DATE: July 21

PREPARED BY: Benbow Environmental

ISSUE NO.: 1

2. NOISE AND VIBRATION MANAGEMENT

2.1 PURPOSE

To effectively manage noise emissions and vibration impacts from the site during construction and minimise the occurrence of offensive and nuisance noise in the community.

2.2 PROCEDURE

2.2.1 Operational Hours

Construction activities are only to take place during standard construction hours as follows:

Monday to Friday:	7:00am to 6:00pm (with no hammering or saw-cutting to occur before 7.30am)
Saturday:	8:00am to 4:00pm (with no hammering or saw-cutting to occur before 8.30am)
Sunday and Public Holidays:	No works permitted

Noisy construction works such as use of jackhammers/rock breakers, or activities generating vibrations, will be scheduled to be undertaken during less sensitive hours, avoiding early morning and late afternoon where practicable.

2.2.2 Construction Plant & Equipment

- Construction plant and equipment will be selected based on acoustic performance, where practicable.
- Plant and equipment shall be regularly maintained and fitted with appropriate mufflers or silencers.
- Mufflers will be installed on mechanically powered equipment.
- Equipment will be maintained and operated in a proper and efficient manner, in accordance with manufacturer specifications.
- Plant and equipment that is not being utilised will be turned off.
- Preventative maintenance of all noise generating equipment, such as pumps and air compressors shall be undertaken. Maintenance should be undertaken in accordance with manufacturer's specifications.
- To minimise noise levels, site management shall endeavour to position construction equipment behind structures and stockpiles that act as barriers, or at the greatest distance from residential areas and orientating equipment such that noise emissions are directed away from residential areas.
- Silencers are to be fitted and maintained on air compressors.



2.2.3 General Site Activities

- Regular inspections shall be conducted in accordance with the Regular Site Inspection Procedure to identify areas of potential noise generation. Indicators may include:
 - ▶ Evidence of oil leaks or damage to equipment/vehicles;
 - ▶ Un-secured or damaged noise guards or equipment;
 - ▶ Noticeable, excessive or unusual sources of noise; and
 - ▶ General wear and tear of equipment.
- If problem areas of additional noise generation are identified, action should be taken to alleviate any additional noise as soon as practicable by the Project/ Construction Manager or Site Manager.
- Noise shall be included in the awareness training and induction of staff and contractors.

2.2.4 Vehicle Movements

- Liaise with contract drivers to ensure that they are aware of noise impacts on neighbouring receivers and that they adopt the recommended practices to minimise such problems.
- Limit material deliveries and other truck movements to day time only/outside noise sensitive times.
- Enforcing the following practices for on-site vehicle movements:
 - ▶ Low on-site speed limits (<15 km/h);
 - ▶ Minimise the use of truck exhaust brakes on site;
 - ▶ Minimising reversing distances and hence noise generated by reversing beepers; and
 - ▶ No extended periods of on-site revving/idling.

2.2.5 Work Scheduling

- Scheduling activities to minimise impacts by undertaking all possible work during hours that will least adversely affect sensitive receivers;
- Scheduling noisy activities to coincide with high levels of neighbourhood noise so that noise from the activities is partially masked and not as intrusive as per Section 2.2.1;
- Planning deliveries and access to the site to occur quietly and efficiently and organising parking only within designated areas located away from the sensitive receivers;
- Optimising the number of deliveries to the site by amalgamating loads where possible and scheduling arrivals within designated hours; and
- Designating, designing and maintaining access routes to the site to minimise impacts.

2.2.6 Additional Noise Mitigation Measures

Where additional noise mitigation measures are required, adopt the following:

- Use temporary site buildings and material stockpiles as noise barriers. The latter can be created using site earthworks, however, uncovered stockpiles should not be located too close to sensitive receivers to cause dust emissions; and
- Installing purpose built noise barriers, acoustic sheds and enclosures where practicable.

2.3 NOISE MONITORING

In the event of a noise complaint, a suitably qualified acoustic consultant should be engaged to undertake noise compliance monitoring.



As per the *Interim Construction Noise Guideline* (Department of Environment and Climate Change NSW, 2009):

- *Where the predicted or measured LAeq (15 min) is greater than the noise affected level, the proponent should apply all feasible and reasonable work practices to meet the noise affected level.*
- *The proponent should also inform all potentially impacted residents of the nature of works to be carried out, the expected noise levels and duration, as well as contact details.*

2.4 INSPECTION AND RECORDS

Results of the regular site inspections need to be maintained.

Any issues or non-conformances noted during workplace inspections must be recorded. Documentation for any corrective and preventative actions must also be maintained, as described in the *Corrective and Preventative Actions* section of the CEMP. Any other relevant records must also be kept for inspection by regulatory authorities.

Where noise complaints are received, noise monitoring undertaken by a suitably qualified environmental consultant is recommended.



PROCEDURE NAME: EROSION, SEDIMENT & STORMWATER MANAGEMENT **DATE:** July 21

PREPARED BY: Benbow Environmental **ISSUE NO.:** 1

3. EROSION, SEDIMENT & STORMWATER MANAGEMENT

3.1 PURPOSE

This procedure serves to ensure the control of erosion and sediment materials during earthworks and construction activities.

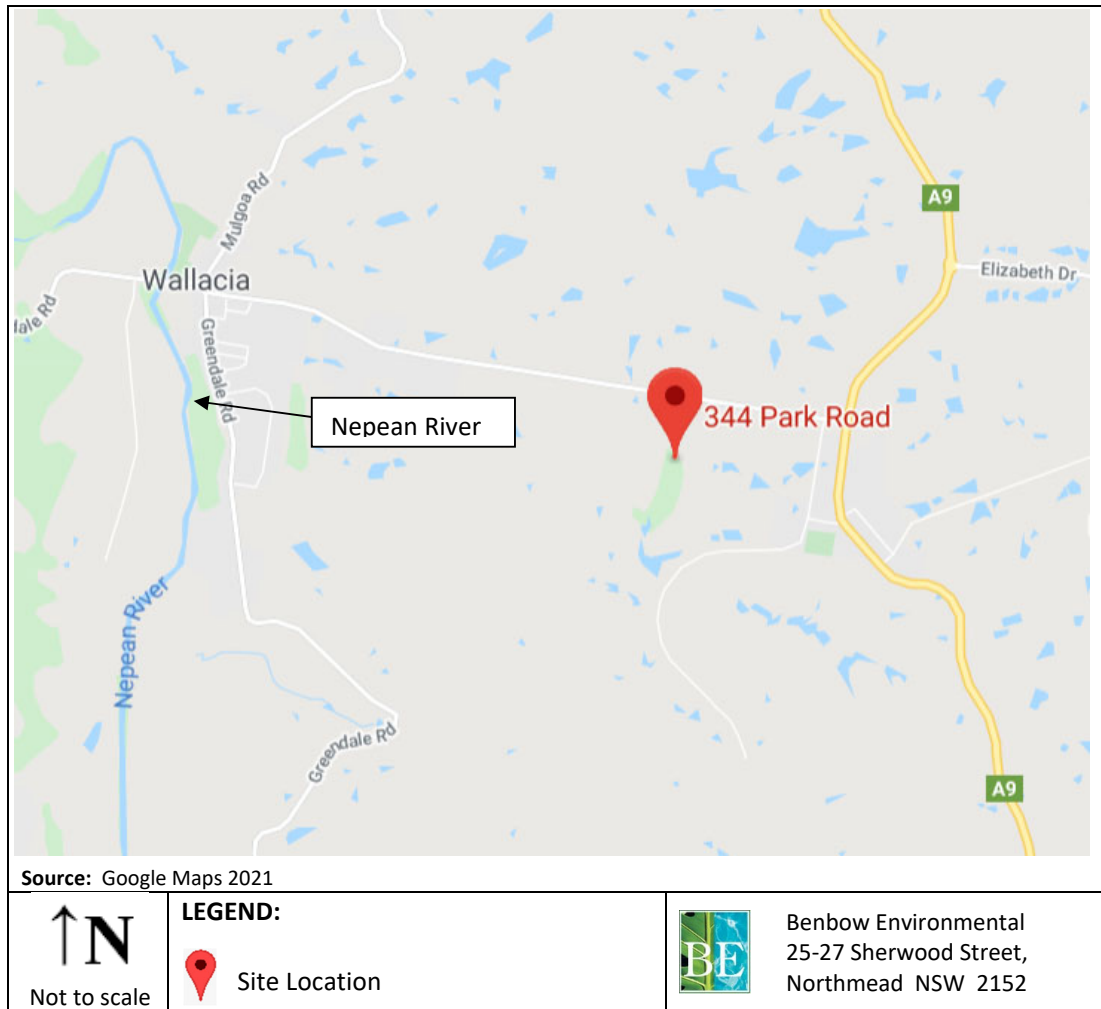
It is imperative that excavated material, sediments or spoil do not exit the site or enter waterways.

3.2 NEAREST WATERCOURSE

The site is located near major waterways. The Nepean River is approximately 3.5 km to the west of the site. Figure 3-1 displays the location of the Nepean River relative to the site.

There is a small ephemeral watercourse that traverses the site in the southern portion of the site and runs from east to west during times of heavy rainfall. This is part of the Duncans Creek Catchment.

Figure 3-1: Nearest Watercourse



3.3 PROCEDURE

This procedure should be read in conjunction with the Erosion and Sediment Control Plan (ESCP) prepared by Indesco (ref: 7410-DA-006) as part of the development application.

3.3.1 Stormwater Requirements

- Keep the premises clean and tidy at all times.
- Locate temporary stockpiles away from stormwater drains and provide sediment fence to downstream side to prevent sediments entering stormwater.
- Stormwater drains should be inspected routinely for evidence of debris – any debris build-up must be removed.
- Any stormwater pollution control equipment must be maintained in optimum working condition.
- No waste or items of any description shall be tipped down stormwater drains.
- Once constructed, all hardstand areas shall be inspected and maintained to ensure the integrity of the hardstand surface be maintained, with any cracks repaired immediately.



- If contaminated stormwater has exited the site or is strongly suspected to be contaminated but cannot be sampled, incident reporting should be undertaken and the Director shall notify all relevant authorities (i.e. local council, NSW EPA), and co-operate in the investigations clean-up process.

3.3.2 Erosion and Sediment Controls

Erosion and sediment control measures to be implemented during construction include a sediment barrier fence around the construction works site. These are shown on the ESCP and need to be installed during the site establishment phase, prior to the commencement of construction. These measures are detailed below.

Sediment Fencing

Sediment fencing is to be installed around the boundary of the construction area and at the base of any temporary stockpile and where required to prevent sediment leaving the construction site. Ensure that sediment fences are firmly trenched into the ground for their entire length and include small 'returns' to minimise the risk of water flowing along them rather than through them.

Earth Banks

Earth banks are used to divert water around stockpiles and sediment fences. They are to be installed on the upslope side of stockpiles.

Geotextile Inlet Filters

These filters are made of geotextile or straw bales and are installed around existing stormwater pits within a trench using star pickets.

Sand Bags

Sand bags can be used as a temporary sediment trap in the event of emergencies. Sand bags can also be used as temporary measures for the protection of kerb inlets.

Barrier Fencing

Barrier fences are used to define access areas and to minimise unnecessary disturbance of vegetated or developed lands. They are used to restrict access to any areas that do not need to be disturbed and are used on an as-needs basis.

Stabilised entry and exit point.

A Stabilised Access Point (SAP) must be installed and maintained at the construction ingress/egress location prior to the commencement of any work. Single sized 40mm or larger aggregate placed 150mm deep and extending from the street kerb/road shoulder to the land is recommended to be provided as a minimum.

3.3.3 Temporary Stockpiles

Temporary stockpiles would be needed to store excavated material and some green waste and media materials. Stockpiles would be located along the side of the trench and need to be appropriately managed as follows:

- Protect stockpiles by installing a sediment fence along the downstream end 1 to 2 metres downslope as required.



- Stockpiles should be located at least 2 metres away from existing vegetation, waterbodies, roads and other hazard areas.
- The side slopes of the stockpiles should be maintained at 2:1.
- Stabilise the surface of the stockpile using measures such as dampening with water, erosion control blankets or mulching.
- Earth banks are to be constructed on the upslope side of stockpiles to divert water around stockpiles.
- Maintain stockpiles to a height of no more than 3 metres.

3.4 INSPECTION AND RECORDS

Results of the regular site inspections need to be maintained.

Any issues or non-conformances noted during workplace inspections must be recorded. Documentation for any corrective and preventative actions must also be maintained, as described in the *Corrective and Preventative Actions* section of the CEMP. Any other relevant records must also be kept for inspection by regulatory authorities.



PROCEDURE NAME: WASTE MANAGEMENT **DATE:** July 21
PREPARED BY: Benbow Environmental **ISSUE NO.:** 1

4. WASTE MANAGEMENT

4.1 PURPOSE

This procedure serves to ensure waste is adequately managed during construction activities.

4.2 PROCEDURE

The expected waste generation and management during demolition and construction are provided in the tables below.

4.2.1 Demolition Waste

Demolition of the small existing metal shed is proposed. This is approximately 45m² in area. The dwelling and associated infrastructure would remain. Estimations of the waste generated as a result of the demolition phase and how this will be managed is provided in the following table.

Table 4-1: Expected Demolition Waste

Waste Type	Estimated Maximum Quantity (tonnes)	EPA Waste Classification ¹	Management
Excavation (eg soil, rock)	1	General solid waste (non-putrescible)	Reused on site
Greenwaste	0	General solid waste (non-putrescible)	N/A
Bricks	0	General solid waste (non-putrescible)	N/A
Concrete	0.5	General solid waste (non-putrescible)	Placed in designated skip bin and transported to an authorised recycling facility EG: SUEZ Kemps Creek.



Table 4-1: Expected Demolition Waste

Waste Type	Estimated Maximum Quantity (tonnes)	EPA Waste Classification ¹	Management
Timber	0	General solid waste (non-putrescible)	N/A
Plasterboard	0	General solid waste (non-putrescible)	N/A
Metals: Scrap Colorbond	2	General solid waste (non-putrescible)	Placed in designated skip bin and transported to SUEZ Kemps Creek.
Other	0	N/A	N/A

Notes:

1. Waste classification according to *Waste Classification Guidelines* provided.

4.2.2 Construction Waste

Construction works would involve establishment of a concrete hardstand area, car park, internal roadways, construction of a large building and associated infrastructure. Estimations of construction waste and how this will be managed is detailed in the table below.

Table 4-2: Expected Construction Waste

Waste Type	Estimated Maximum Quantity (tonnes)	EPA Waste Classification ¹	Management
Excavation (eg soil, rock)	>2,500	General solid waste (non-putrescible)	Reused on site for cut and fill purposes.
Greenwaste	10	General solid waste (non-putrescible)	Reused on site for landscaping purposes



Table 4-2: Expected Construction Waste

Waste Type	Estimated Maximum Quantity (tonnes)	EPA Waste Classification ¹	Management
Bricks	0	General solid waste (non-putrescible)	N/A
Concrete	60	General solid waste (non-putrescible)	Placed in designated skip bin to remain on site until it can be processed in the RRFT
Timber	2	General solid waste (non-putrescible)	Placed in designated skip bin to remain on site until it can be processed in the RRFT
Plasterboard	2	General solid waste (non-putrescible)	Placed in designated skip bin and transported to an authorised recycling facility EG: SUEZ Kemps Creek.
Metals: Scrap Colorbond	40	General solid waste (non-putrescible)	Placed in designated skip bin to remain on site until it can be processed in the RRFT
Other	5	N/A	Placed in designated skip bin and removed by a licensed waste contractor.

Notes:

- Waste classification according to *Waste Classification Guidelines* provided.

4.2.3 General Waste Procedures

- Training of personnel and subcontractors for any waste management requirements at the site through inductions and toolbox meetings.
- All waste material must be stored either in designated waste bins or stockpile areas away from waterways and stormwater drains.
- All wastes should be reused or segregated wherever possible.
- Regular visual inspections should be conducted to ensure that work sites are kept tidy and to identify opportunities for reuse and recycling.
- A register of wastes removed from site should be maintained by the Site Manager.
- Should wastes that have not been identified in the waste management plan (WMP) be generated at the site, the company has a responsibility to classify these wastes to ensure that management is in compliance with waste legislation.
- Wherever possible, approved and accepted wastes may be processed through the sites C&D facility.



- Non-approved or non-conforming waste should only be disposed to facilities appropriately licenced to receive the relevant classification of waste.
- Transport and handling of waste to be undertaken by licensed contractors only.
- Excess or rejected concrete to be returned to the batch plant for recycling when possible.
- The collection and disposal of wastewater from site operations and/or temporary facilities must be conducted by an approved licenced contractor at a licenced facility.

4.2.4 Excavated Materials, Spoil and Stockpiles

- Stockpiled soil must only be placed on an impermeable layer (concrete, plastic etc).
- Stockpiles must be stored in such a way that that prevents escape or migration of materials.
- All excavated materials must be analysed by a suitably qualified person in accordance with the NSW EPA *Waste Classification Guidelines* (2014).
- Chemical analysis shall be conducted by a National Association of Testing Authorities (NATA) certified institution.
- Stored materials should be clearly marked, segregated wherever possible and material identified.
- Where potential contamination or suspect material is discovered during excavation, refer to the Unexpected Finds Protocol (Procedure A4.5).

4.2.5 Chemical Waste Procedures

- For minor volumes of hazardous waste, such as oils and lubricants, wastes are to be collected in appropriate receptacles for the material, either the original or equivalent packaging.
- Receptacles used must be labelled appropriately, including any hazard symbols.
- Waste oils, lubricants and any other hazardous wastes are to be stored within a bunded and roofed area which complies with Australian Standards and the relevant Safety Data Sheets (e.g. bunded pallets under awning or within a building may be appropriate).
- The disposal of chemical, fuel and lubricant containers, solid and liquid wastes must be in accordance with the requirements of Council or NSW EPA.

4.2.6 Waste Documentation Procedures

It is recommended that waste management activities be recorded in a Waste Management Logbook as that provided in Table 4-3. Site Management or personnel responsible for environmental duties would complete the logbook to include type, quantity, destination and any tracking requirement of wastes transported off-site. All documentation regarding waste management must be maintained for a period of at least 6 years.

[illegible]**Destination** Indicate if destined for recycling, disposal, reuse; specify contractor



4.3 INSPECTION AND RECORDS

Results of the regular site inspections need to be maintained.

Any issues or non-conformances noted during workplace inspections must be recorded. Documentation for any corrective and preventative actions must also be maintained, as described in the *Corrective and Preventative Actions* section of the CEMP. Any other relevant records must also be kept for inspection by regulatory authorities.



PROCEDURE NAME:	UNEXPECTED FINDS PROTOCOL	DATE:	July 21
PREPARED BY:	Benbow Environmental	ISSUE NO.:	1

5. Unexpected Finds Protocol

5.1 PURPOSE

The purpose of this procedure is to provide instructions for the management of unexpected finds to minimise impacts to the environment.

5.2 DEFINITIONS

The following definitions are of relevance:

Acid Sulfate Soil (ASS)

Acid sulfate soils (ASS) are those naturally occurring sediments and soils which contain sulfides, mainly iron sulfide and iron disulfide or their precursors. Exposure of these sulfides in the soil to oxygen – often as a result of drainage or excavation – can produce sulfuric acid, which may have a significant impact on the environment.

Asbestos

Asbestos is a group of naturally-occurring fibrous minerals that were used in many buildings during the 1980's. When disturbed, asbestos can generate fibres that are hazardous to human health. Breathing in asbestos fibres can lead to diseases such as asbestosis, lung cancer and mesothelioma.

Contaminated Material

Materials that contain substances that are of sufficient concentration to potentially cause harm to human health or the environment.

Potential Acid Sulfate Soils (PASS)

Potential ASS are soils that contain iron sulfides or sulfidic materials that have not been exposed to air and thus are not oxidised.

Unexpected finds

For the purposes of this procedure, an "unexpected find" includes: *Suspect materials identified by unusual staining, odour, discolouration or inclusions such as building rubble, asbestos, ash material, animal material etc; and*

5.3 PROCEDURE

The following mitigation measures have been recommended to be undertaken prior to and during construction and include:

During the course of the construction works, inspections need to be undertaken of any disturbed material such as excavated soil.



There could be many kinds of “suspect material” encountered during excavation works including:

- Buried wastes such as containers, drums, rubble, asphalt and other such items;
- Asbestos or other similar fibro material, gyprock or plasterboard;
- Contaminated soil – identified by discolouration, staining or odour; and
- Acid sulfate soils or Potential acid sulfate soils.

If such material is encountered at any stage of earthworks, site preparation or construction then the following steps should be taken:

1. Cease work immediately. Do not touch the suspect material or item.
2. Contact the Principal Contractor and inform of findings.
3. Set up temporary barricades (tape, bunting, or temporary fencing) to segregate the material and prevent access to the area.
4. Install erosion and sediment controls if necessary. Such controls include hay bales, geotextile fences and sediment barriers to prevent rainwater from transferring the suspect material off site.
5. Cover any stockpiled material containing the suspect material with tarps or plastic sheeting.
6. Arrange inspection by a suitably qualified person to confirm identification of the suspect material. Sampling and testing (if required) will be undertaken as recommended by this consultant.
7. If material is confirmed to be contaminated, a remedial action plan (RAP) may need to be prepared to deal with the material. Undertake recommendations in the RAP.
8. If the material is not contaminated and poses no threat to the human health or the environment, the barricades can be removed and work can continue as normal.
9. Record details of any unexpected find in the incident register.



PROCEDURE NAME: CONSTRUCTION TRAFFIC DATE: July 21
MANAGEMENT PROCEDURE

PREPARED BY: Benbow Environmental **ISSUE NO.:** 1

6. CONSTRUCTION TRAFFIC MANAGEMENT PROCEDURE

6.1 PURPOSE

The purpose of this procedure is to provide guidance to ensure that impacts to local traffic, pedestrians and carparking as a result of the proposed development are minimised. This procedure does not include a detailed traffic management plan.

6.2 PROCEDURE

6.2.1 Construction Traffic Management

- Construction traffic must enter the site via the site entrance on Park Road.
- Signage directing construction traffic to the driveway will be in place.
- Truck arrivals are to be pre-planned to within a time frame of at least 20 minutes, to minimise queuing on Park Road.
- All trucks will be queued within the site. Ample room is available for trucks to queue in the driveway if necessary.
- Trucks are not to park in nearby streets while waiting to travel to the site.
- Truck movements will only occur during permitted construction periods.
- All loads entering and leaving the site must be covered.
- A stabilised site access point to the construction area of the site must be installed to ensure that trucks do not track dirt onto public roads.
- Vehicles leaving the site to be cleaned of dirt and other materials to avoid tracking onto public roads. For this purpose, a tap and hose should be provided behind the sediment barrier fence line.
- Ensure public roads used by construction vehicles are kept clean.

6.2.2 Carpark Management

- There is ample room for construction vehicle parking on site.
- Construction vehicles should not be parked on the street or outside of the property boundaries.

6.3 INSPECTION AND RECORDS

Results of the regular site inspections need to be maintained.

Any issues or non-conformances noted during workplace inspections must be recorded. Documentation for any corrective and preventative actions must also be maintained, as described in the *Corrective and Preventative Actions* section of the CEMP. Any other relevant records must also be kept for inspection by regulatory authorities.



PROCEDURE NAME:	FLORA AND FAUNA PROCEDURE	DATE:	July 21
PREPARED BY:	Benbow Environmental	ISSUE NO.:	1

7. FLORA AND FAUNA PROCEDURE

8. FLORA AND FAUNA MANAGEMENT

8.1 PURPOSE

A biodiversity development assessment report (BDAR) has been undertaken by Narla Environmental for the proposed development. The purpose of the BDAR was to identify the potential impacts of the proposed development on biodiversity values. Its findings state that:

- No threatened species are predicted to be impacted as a result of the proposed development;
- No serious and irreversible impacts (SAIL) to ecological communities or species are predicted as a result of the proposed development; and
- The 0.3 ha of native vegetation that requires removal for the proposed development is not expected to impact on groundwater dependent ecosystems.

The proposed development has been purposefully designed to minimise impacts on biodiversity values, as it has been positioned within a mostly cleared area of the subject property. Removal of vegetation has been largely avoided and is within an area with the least biodiversity values that avoids higher quality bushland in the western and southern portions of the subject property.

The purpose of this procedure is to provide instructions for the management of biodiversity (flora and fauna) during the construction works to minimise impacts to habitat in the surrounding areas.

8.2 DEFINITIONS

VIC Priority Weed Species

Weed species that pose a biosecurity risk. Also known as “invasive weeds”.

Biosecurity risk

A biosecurity risk exists where priority weeds have the potential to negatively impact on agriculture, industry, the liveability of our city, human health or the environment.

8.3 PROCEDURE

The following mitigation measures have been recommended to be undertaken prior to and during construction and include:



8.3.1 Prior to Construction

- The proposed development is expected to impact on native vegetation within the subject land including one (1) plant community type (PCT): PCT 724 – Broad-leaved Ironbark – Grey Box – Melaleuca decora grassy open forest on clay/gravel soils of the Cumberland Plan, Sydney Basin Bioregion. The BDAR should be consulted for recommendations and requirements related to the management of this community.
- An arborist is to establish tree protection zones and provide advice regarding non-destructive methods or use of tree sensitive construction methods.
- A suitably qualified ecologist is to undertake the following prior to construction/clearing:
 - A targeted searches for threatened flora prior to vegetation clearing;
 - An extensive pre-clearing survey, delineating habitat-bearing trees and shrubs to be retained/removed; and
 - Supervise the clearance of trees and shrubs (native and exotic) in order to capture, treat and/or relocate any displaced flora.
- Treat all VIC priority weed species within the proposed excavation area prior to construction works. Treatment shall be undertaken by a professional weed control contractor.
- Any native trees within the subject site are to be identified and protected using brightly coloured para-webbing (or similar). These areas are to be clearly identified as “no go zones” and communicated to all contractors involved in construction works.

8.3.2 During Construction

- Locate any temporary structures for construction within areas containing no native vegetation.
- Treat any VIC Priority Weed species found within areas of soil disturbance using appropriate control measures by a professional weed control contractor.
- Prior to the removal of any vegetation or fauna habitat such as logs or rock, inspect for any fauna that may be present. If fauna is found and requires relocation, this is required to be undertaken by a suitably qualified ecologist or wildlife handler.
- Report injured fauna immediately to WIRES 03 8400 7300.
- Do not spread excavated material around the site area unnecessarily.
- “No go zones” are to be clearly identified and communicated to all contractors. Access to and use of “no go zones” is to be prohibited.
- Erosion, sediment and stormwater management/controls to be implemented, as outlined in Procedure #3 of this CEMP.



8.3.3 Post Construction

- Revegetation of approximately 1 ha of degraded area to the west of the proposed development, with approximately 2,900 trees and shrubs and the seeding of groundcovers including grasses, forbs and ferns.
- Any woody debris (fallen trees and logs) are to be relocated to an area of native vegetation.
- Temporary fencing should be erected around retained native vegetation that may incur indirect impacts on biodiversity values due to construction works.
- Allocate all storage, stockpile and laydown sites away from any native vegetation that is planned to be retained.



PROCEDURE NAME: SPILL PROCEDURE

DATE: July 21

PREPARED BY: Benbow Environmental

ISSUE NO.: 1

9. SPILL PROCEDURE

9.1 PURPOSE

The purpose of this procedure is to ensure the containment of all spills on the site to prevent the entry of spilled substances, materials or debris into stormwater systems and public waterways, reducing the risk of environmental pollution and exposure to breaches and penalties under environmental pollution legislation. Potential risks in relation to the construction activities is the generation of washwater and a risk of spills if chemicals are needed during construction.

9.2 DEFINITIONS

Minor Spillage

A minor spillage is one that can be contained quickly and efficiently using the provisions of the Spill Kits located at various points around the site. It is typically less than 50 L. A minor spill would not be expected to reach the stormwater system. If the minor spill does reach the stormwater system the same action as outlined for a major spill will need to be taken.

Major Spillage

A major spillage has the potential to leave the site and is characterised by the spillage of a quantity greater than 50 L. A spill of this size must be prevented from reaching the stormwater system, and requires the sealing of stormwater drainage pits and the stormwater outlets, which is necessary to isolate the site from surrounding waterways.

Safety Data Sheet (SDS)

A document that provides information on the identification, health hazards, precautions for use and the safe handling of specific chemical product, which complies with ASCC:2011 (1994).

These data sheets are obtained from the supplier and provide essential information required to allow safe handling of hazardous substances at work. Employers must ensure that all employees have access to SDS and must encourage employees to read the SDS's for all hazardous substances, which they may encounter in their work.

All SDS's include the following information:

- Product name and classification by UN No., GHS category, hazard statement and signal word;
- Product identification including physical and chemical properties;
- Health hazard information detailing acute effects and first aid advice;
- Precautions for use;
- Safe handling information including storage and transport, spills and disposal and fire explosion hazards;
- Recommend on the use of PPE; and



- Miscellaneous information.

The information in an SDS is very important and all members of staff must be familiar with the location of the SDS's and their contents. For new chemicals on site, an SDS must be provided from manufacturers and read by the staff.

Spill Kit

A kit consisting of spill equipment to contain and clean up spills. Spill kits must include at least the following items: shovels, brooms, chemically resistant boots and gloves, disposal bags for contaminated waste and portable containment barriers. There are spill kits specifically designed to clean up different substances including chemical spill kits for corrosive or unknown liquids, universal spill kits for water-based and non-corrosive liquids and oil spill kits.

9.3 PROCEDURES

Spill kits are required on site if chemicals are to be stored. Spill kits should be suited to the chemicals stored and/or handled during construction. Spill control equipment should be kept together at one location and communicated to all personnel. Signage should indicate the designated locations of the spill kits/spill control equipment.

If a spill occurs on the site the following procedure is to be followed:

9.3.1 For Minor Spillage <50 L

First-Response Action on Discovery of Minor Spill (General)

1. Switch off all pumps using the automatic pump cut-off.
2. Assist and remove any person from the danger area, only if safe to do so.
3. Check that all potential sources of ignition have been shut down (if safe to do so).
4. Immediately notify the Site Manager and specify details of the spill, such as location or source of release.
5. Follow instructions from the Site Manager.

Site Manager Responsibilities

When informed of the spill:

1. Switch off all pumps using the automatic pump cut-off.
2. Mobilise and co-ordinate personnel to take incident response action.
3. Assist and remove any person from the danger area, only if safe to do so.
4. Contain the spill using booms or other portable containment barriers from the Spill Kit to prevent the spill entering stormwater drains. Soak up as much of the spill as possible using adsorbents from the Spill Kit.
5. Check that all potential sources of ignition have been shut down (if safe to do so).
6. Advise the Director of the details of the spill.
7. Adsorbents used in the spill clean-up are likely to be classified as hazardous waste. Contact a licensed waste contractor to dispose of the adsorbents used in the spill clean-up.
8. It will remain the discretion of the Director whether or not to report details of the spill incident, location, time of occurrence, type of spill, chemical involved and quantity on a corrective/preventative action form.



9.3.2 For Major Spillage >50 L

First-Response Action on Discovery of Major Spill (General)

1. Switch off all pumps using the automatic pump cut-off.
2. Assist and remove any person from the danger area, only if safe to do so.
3. Check that all potential sources of ignition have been shut down (if safe to do so).
4. Immediately notify the Site Manager and specify details of the spill, such as location or source of release.
5. Follow instructions from the Site Manager.

Site Manager Responsibilities

When informed of the spill:

1. Mobilise and co-ordinate personnel to take incident response action.
2. Assist and remove any person from the danger area, only if safe to do so.
3. Contain the spill using booms from the Spill Kit to prevent the spill entering stormwater drains. Soak up as much of the spill as possible using adsorbents from the Spill Kit.
4. Check that all potential sources of ignition have been shut down (if safe to do so).
5. If required, telephone the Fire Brigade and/or Police or Ambulance Services confirming the state of the emergency at the Site and requesting for additional assistance.
6. Advise the Director of the details of the spill;
7. Under the direction of the Director, and with the assistance of the emergency response crews (if required), clean up the spill;
8. Adsorbents used in the spill clean-up are likely to be classified as hazardous waste. Contact a licensed waste contractor to dispose of the adsorbents used in the spill clean-up.

Reporting a Major Spill

Under section 148 of the Protection of the Environment Operations Act, 1997, there is a duty to report pollution incidents. The Director is responsible for notifying the relevant authorities.

Relevant authorities include one or more the following, depending on the type and extent of the spill:

- | | |
|---|----------------|
| 1. NSW Environment Protection Authority | 131 555 |
| 2. Penrith City Council | (02) 4732 7777 |
| 3. The Ministry of Health | (02) 9391 9263 |
| 4. SafeWork NSW | 13 10 50 |
| 5. Fire and Rescue NSW | (02) 9265 2999 |

The following provides guidance on notifying pollution incidents:

- Any pollution incident that causes or threatens material harm to the environment must be notified immediately.
- A 'pollution incident' includes a leak, spill or escape of a substance, or circumstances in which this is likely to occur.



- Material harm includes on-site harm, as well as harm to the environment beyond the premises where the pollution incident occurred.
- Notification must be given immediately after the person becomes aware of the incident.

9.4 INSPECTION AND RECORDS

Results of the regular site inspections need to be maintained.

Any issues or non-conformances noted during workplace inspections must be recorded. Documentation for any corrective and preventative actions must also be maintained, as described in the *Corrective and Preventative Actions* section of the CEMP. Any other relevant records must also be kept of professional periodic inspections.



PROCEDURE NAME: REGULAR SITE INSPECTION PROCEDURE **DATE:** July 21

PREPARED BY: Benbow Environmental **ISSUE NO.:** 1

10. REGULAR SITE INSPECTION

10.1 PURPOSE

The purpose of this procedure is to ensure an adequate level of environmental management during construction is maintained. The procedure can help determine whether action needs to be taken, in order to rectify any identified issues with the potential to cause environmental harm.

10.2 PROCEDURE

- An Inspection Checklist is provided overleaf to be initially completed and recorded on a weekly basis. This information is used to ensure an adequate level of environmental management at the site is maintained. It is also used to determine whether action needs to be taken to rectify issues that have arisen that may have the potential to cause environmental harm.
- If any action is required, this should be decided at the discretion of the Site Manager and Project/ Construction Manager.
- Any issues or non-conformances noted during site inspections must be recorded. Documentation for any corrective and preventative actions (e.g. CAR forms) must also be maintained, as described in the *Corrective and Preventative Actions* section of the CEMP. Any other relevant records must also be kept for inspection by regulatory authorities.



CONSTRUCTION WEEKLY SITE INSPECTION CHECKLIST				
Inspected by:			Date & time:	
ITEM CHECKED	YES	NO	ACTION REQUIRED	SIGN
Is there any excessive noise from construction activities (or any noise complaints)?				
Is there any excessive or unusual dust emissions or any complaints regarding dust from construction activities?				
Is dust from all exposed surfaces adequately suppressed using regular watering?				
Is all barrier fencing installed being used for its intended purpose?				
Is the stabilised access point working adequately? Check whether any sediment build up (tracking from vehicles) is evident on the roadway leaving the site.				
Is there evidence of construction traffic tracking dirt onto adjoining public roads? Public roads need to be cleaned if there is evidence of dirt being tracked from the construction area.				
Is all on site traffic associated with construction within authorised area?				
Are trucks entering and leaving the site with loads adequately covered?				
Are truck tyres being washed before departing from the site?				
Are temporary stockpiles: <ul style="list-style-type: none"> • Located clear of drainage paths, easements, kerbs and roadways? • Located below fence lines when within 5 m of a fence? • Below a height of 3 m? • Adequately controlled using sediment fencing? • Regularly watered to suppress dust or covered if on site for longer than one month? 				
Are sediment fences installed around the construction area and at the base of temporary stockpiles? Check sediment fences are: <ul style="list-style-type: none"> • Firmly trenched into the ground for the entire length • Capturing sediment adequately • Filled with rubbish, sediment or debris and if they need cleaning/replacing 				
If applicable, check all gutters and drains are adequately fitted with sediment traps. Are all sediment traps working adequately? Check any sediment build up around traps indicating they need replacing / cleaning.				



CONSTRUCTION WEEKLY SITE INSPECTION CHECKLIST				
Inspected by:			Date & time:	
ITEM CHECKED	YES	NO	ACTION REQUIRED	SIGN
Are any signs out of place, obstructed or missing? <ul style="list-style-type: none"> Speed limit site sign at entrance Construction site sign at entrance Warning signs to pedestrians 				
Are all oils, fuels, lubricants and chemicals (and associated wastes) labelled and stored in appropriate receptacles/areas?				
Is there evidence of any spills including oil, fuel, chemicals on any area of the site?				
Check all waste is: <ul style="list-style-type: none"> Stored within the correct bins and/or designated waste areas and not near waterways or stormwater pits Not overflowing from bins Within bins that are labelled correctly and adequately covered when not in use 				
Is there any litter or windblown waste in the construction area?				
Are there any other areas that have not been maintained?				

Comments:

Name: _____ Signature: _____ Date: _____

Attachment A5: Environmental Policy

CONSTRUCTION OF GREENFIELDS RESOURCE RECOVERY FACILITY ENVIRONMENTAL POLICY

This policy applies to facilities, offices, employees and contractors during the construction of Greenfields Resource Recovery Facility. **All contractors will** adopt a pragmatic approach to environmental management and be committed to continually improving our environmental performance and minimising the impacts of construction activities on the environment by:

- Minimising the consumption of energy and water at the construction site;
- Minimising the generation of waste;
- Maximising our efficiency by keeping up to date with the latest best practice technologies and implementing those found viable into the construction site;
- Making environmentally sound purchasing decisions;
- Working with suppliers and customers to reduce the environmental impact of transportation;
- Complying with all relevant environmental legislation and other requirements;
- Educating our employees, contractors and customers to minimise environmental impact through awareness training, participation and feedback;
- Setting realistic environmental objectives and targets and developing programs to achieve these; and
- Incorporating environmental sustainability principles into all business functions.

All contractors will endeavour to integrate strategies for the prevention of pollution by minimising the risks of our operations on the environment.

Principal Contractor
Greenfields Resource Recovery Facility

Date:

Attachment A6: Site Plans
