



NGH

NEOEN

Waste Management Plan

Culcairn Solar Farm

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Acronyms and abbreviations

Term / Abbreviations	Definition / Expanded Text
AC	Alternating current
BESS	Battery Energy Storage System
CoA	Condition of Approval
DC	Direct current
DPE	Department of Planning and Environment
DPI	NSW Department of Primary Industries
EIS	Environmental Impact Statement
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	Environmental Planning and Assessment Regulation 2021
EPA	NSW Environment Protection Authority
EMS	Environmental Management Strategy
ENM	Excavated Natural Material
EWMS	Environmental Work Method Statements
GREP	Government Resource Efficiency Policy
IPC	Independent Planning Commission
Km	Kilometre
kV	Kilovolts
m	Metres
MW	Mega Watt
NEM	National Electricity Market
NSW	New South Wales
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
PV	Photovoltaic
Resource	Resource covers energy, fuel, oil, water and other materials used for construction of the project.

Term / Abbreviations	Definition / Expanded Text
SEA	Site Environmental Advisor
SSD	State Significant Development
SWMP	Soil and Water Management Plan
VENM	Virgin Excavated Natural Material
WARR Act	<i>Waste Avoidance and Resource Recovery Act 2001</i>
WMP	Waste Management Plan

1. Introduction

1.1. Background

Neoen Australia Pty Ltd (Neoen) (the Proponent) have approval for the construction, operation and decommissioning of a 350 Megawatt (MW) alternating current (AC) / 402.5 MW direct current (DC), photovoltaic (PV) solar farm, referred to as Culcairn Solar Farm (the Project). The Project is located on rural land, approximately 4 kilometres (km) southwest of Culcairn, New South Wales (NSW).

The Project was assessed in an Environmental Impact Statement (EIS) in accordance with Part 4 of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) and Schedule 2 of the Environmental Planning and Assessment Regulation 2021 (EP&A Regulation). It is considered State Significant Development (SSD).

The Proponent received approval for the Project on 25 March 2021 from the Independent Planning Commission (IPC).

Modification Report 1 (SSD-10288 – Mod 1) was prepared and submitted to the Department of Planning and Environment (DPE) October 2023 and was determined on the 22 December 2023 with consolidated Conditions of consent issued. The modification to the Project was for minor alignment revisions and widening of the Project's Development Footprint along Weeamera Road and at two creek crossings. The modification was also for minor amendments to the definitions and wording of Schedule 3 Condition 2 – Transport.

The EIS assessed the impacts of the Project in terms of waste generation and resource use. The assessment identified the various waste streams that will be generated during construction. The Modification Report 1 resulted in no changes to waste impacts or measures. This Waste Management Plan (WMP) outlines the management measures to be implemented during construction to reduce waste impacts.

1.2. The Project

The Project will involve the construction and operation of a ground-mounted PV solar tracking array generating approximately 350 MW AC / 402.5 MW DC of renewable energy. The power generated will be exported to the national electricity grid.

Key development and infrastructure components will include:

- Single axis tracker PV solar panels mounted on steel frames over most of the site (maximum tilt 4.2 metres in height)
- Underground and overground electrical conduits and cabling to connect the arrays to the inverters and transformers
- Systems of inverter units and voltage step-up throughout the arrays
- National Electricity Market (NEM) compliant metering arrangements for all energy exported to the grid as well as internal metering to measure battery and solar output
- On site substation, connecting to the existing 330 kilo volts (kV) Transgrid transmission line
- Site office and maintenance building, vehicle parking areas, material laydown area, internal access tracks and perimeter security fencing
- Site access track off Weeamera Road
- Road crossing and easement electrical crossing through underground and/or overhead lines, of Cummings Road and Schoffs Lane
- Vegetative screening at impacted visual receivers and at the intersection of public roads.

The approved Project layout is provided in Figure 1-1. Note, the approved Project layout includes a Battery Energy Storage System (BESS). The BESS is currently not proposed to be constructed and therefore not considered in this management plan.

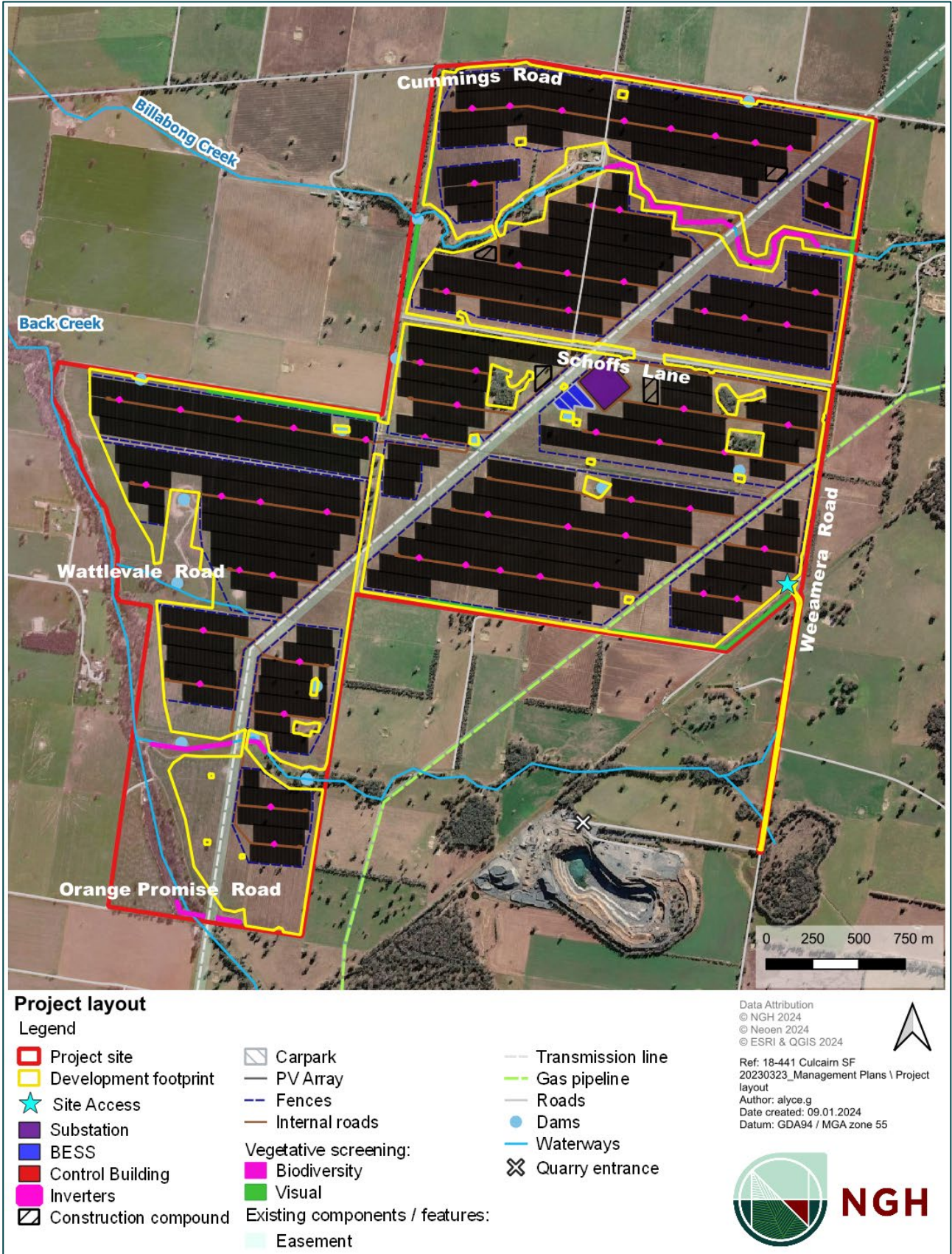


Figure 1-1 Approved Project layout

1.3. Environmental Management Strategy

The WMP is part of the Project's overall Environmental Management Strategy (EMS). Mitigation and management measures identified in this WMP will be incorporated into site or activity-specific Environmental Work Method Statements (EWMS).

When used concurrently, the overarching EMS, WMP and other subplans, procedures and EWMS form management guides that clearly identify the necessary environmental management actions for reference by Neoen's personnel and contractors.

The review and document control processes for this plan are described in Section 11 of the EMS.

2. Purpose and objectives

2.1. Purpose

The purpose of this Plan is to describe how the Contractor and Neoen proposes to manage waste and resources during construction of the Project.

2.2. Objectives

The key objective of the WMP is to ensure all conditions, mitigation measures and licence/permit requirements relevant to waste management are described, scheduled, and assigned responsibility as outlined in:

- The Project EIS (NGH, 2020)
- The Project Submissions Report (NGH, 2020)
- The Project Amendment Report (NGH, 2020)
- Modification Report 1 (NGH, 2023)
- DPE Consolidated Development Consent (determined 22 December 2023).

The Project will be carried out generally in accordance with the EIS and the Conditions of Approval (CoA), if there is any inconsistency between the documents the conditions of the consent will prevail.

2.3. Targets

The following targets have been established for the management of waste and resource impacts during construction of the Project:

- Avoid the unnecessary production of waste
- Dispose of waste materials in accordance with legislative requirements
- Minimise the quantities of resources to be used
- Adoption of the waste minimisation hierarchy
- Identify and implement opportunities to reuse or recycle construction materials, where practicable.

3. Environmental requirements

3.1. Relevant legislation and guidelines

3.1.1. Legislation

Legislation relevant to the development and implementation of the WMP includes:

- *Environmental Planning and Assessment Act 1979* (NSW) (*EP&A Act*)
- Environmental Planning and Assessment Regulation 2021
- *Protection of the Environment Operations Act 1997*
- Protection of the Environment Operations (General) Regulation 2009
- Protection of the Environment Operations (Waste) Regulation 2005
- *Waste Avoidance and Resource Recovery Act 2001* (*WARR Act*).

How this legislation is relevant to the WMP and Project is outlined in Appendix B of the EMS.

3.1.2. Guidelines and standards

Guidelines and standards relevant to the development and implementation of the WMP include:

- NSW Waste and Resource Recovery Strategy 2014-21 (EPA, 2014)
- NSW Government Resource Efficiency Policy (GREP)
- Waste Classification Guidelines (EPA, 2014)
- Stockpile Site Management Guideline (RMS, 2011).

3.2. Conditions of Approval

The Conditions of Approval (CoA) and mitigation measures relevant to the WMP are listed in Table 3-1 below. A cross reference is also included to indicate where the requirement is addressed in this Plan.

Table 3-1 Project conditions of approval and mitigation measures relevant to the WMP

Reference number	Condition requirement	Document reference
Conditions of Approval		
Schedule 3 CoA32	<p>The Applicant must:</p> <ul style="list-style-type: none"> (a) Minimise the waste generated by the development (b) Classify all waste generated on site in accordance with the EPA's Waste Classification Guidelines 2014 (or its latest version) (c) Store and handle all waste on site in accordance with its classification (d) Not receive or dispose of any waste on site (e) Remove all waste from the site as soon as practicable, and ensure it is reused, recycled or sent to an appropriately licensed waste facility for disposal. 	This document Section 5

Reference number	Condition requirement	Document reference
Mitigation measures		
WM1	<p>A Waste Management Plan (WMP) would be developed and implemented during construction, operation and decommissioning to minimise wastes. It would include but not be limited to:</p> <ul style="list-style-type: none"> • Identification of opportunities to avoid, reuse and recycle, in accordance with the waste hierarchy • Quantification and classification of all waste streams • Provision for recycling management onsite • Provision of toilet facilities for onsite workers and how sewage would be disposed of (i.e., pump out to local sewage treatment plant) • Tracking of all waste leaving the site • Disposal of waste at facilities permitted to accept the waste • Requirements for hauling waste (such as covered loads). 	This document Section 5

4. Environmental aspects and impacts

4.1. Construction waste streams and resource use

Project activities will generate solid and liquid wastes, which can be broadly classified as:

- Regulated waste: wastes that require specific controls or actions as defined by legislation. Listed, hazardous, regulated, controlled or trackable wastes typically have unique handling and disposal requirements in order to manage specific hazards associated with them
- General waste: wastes not defined as regulated waste under legislation. General wastes comprise putrescible wastes (easily decomposed, recyclable by composting) and non-putrescible wastes (not easily decomposed, may be recyclable)
- Recyclable waste: waste types that are able to be reconditioned, reprocessed, or reused.

All waste onsite will need to be classified in accordance with Appendix D of this plan.

4.1.1. Construction

Waste produced during construction, operation and decommissioning activities could adversely impact the environment through inappropriate storage and / or disposal. Inappropriate management can also result in legislative non-compliance. Waste can be described as general solid waste and recycling or as Regulated wastes. The following waste streams have been identified as likely to occur as a result of the Project works:

- Excavation of topsoils and vegetation clearing (expected to be minimal)
- Packaging materials associated with items delivered to site such as pallets, crates, cartons, plastics and wrapping materials
- Wastes produced from the maintenance of various heavy construction equipment including liquid hazardous wastes from cleaning, repairing and maintenance
- Non-hazardous wastes generated through the use of worker's facilities such as toilets
- General wastes including office wastes, scrap materials and biodegradable wastes
- Chemicals and oils
- Waste water from wash-down and bunded areas
- Redundant erosion and sediment controls
- Liquid bio wastes from onsite septic systems
- Excess building materials
- Scrap metal and cabling materials
- Plastic and masonry products, including concrete wash.

4.2. Potential impacts

The following environmental impacts associated with waste generation and resource use have been identified as having potential to occur as a result of the Project:

- Generation of construction waste, such as excavated soil and rock
- Generation of vegetation waste from corridor clearing
- Generation of domestic waste from construction personnel
- Inappropriate disposal of hazardous waste

- Generation or spread of contaminated waste/soils impacting soils and water, e.g. groundwater, used or expired chemicals, or construction materials
- Water pollution due to sediment runoff from soil excavation and excess spoil storage
- Weed infestation from dispersion of seeds during clearing and access upgrading activities
- Consumption of non-renewable resources such as energy, diesel and other chemicals
- Greenhouse gas emissions due to consumption of energy from non-renewable resources such as fuels, generators
- Use of water required during construction for activities including watering of roads, topsoil stockpiles and in the site office and amenities compound.

The mismanagement of waste streams has the potential to result in the following impacts:

- Excessive waste being directed to landfill
- Misclassification of waste generated or stored onsite
- Water pollution
- Land contamination
- Additional costs related to waste management.

5. Waste management

5.1. Waste management hierarchy

The waste and resource management hierarchy, as described in the *NSW Waste Avoidance and Resource Recovery Strategy 2014 – 21*, is a tool used to quantify and prioritise methods of waste management, ensuring that resource management options are considered against a hierarchy of:

- Avoidance of unnecessary resource consumption
- Resource recovery (including reuse, recycling, reprocessing and energy recovery)
- Disposal.

A summary of the waste hierarchy is presented in Figure 5-1 below.

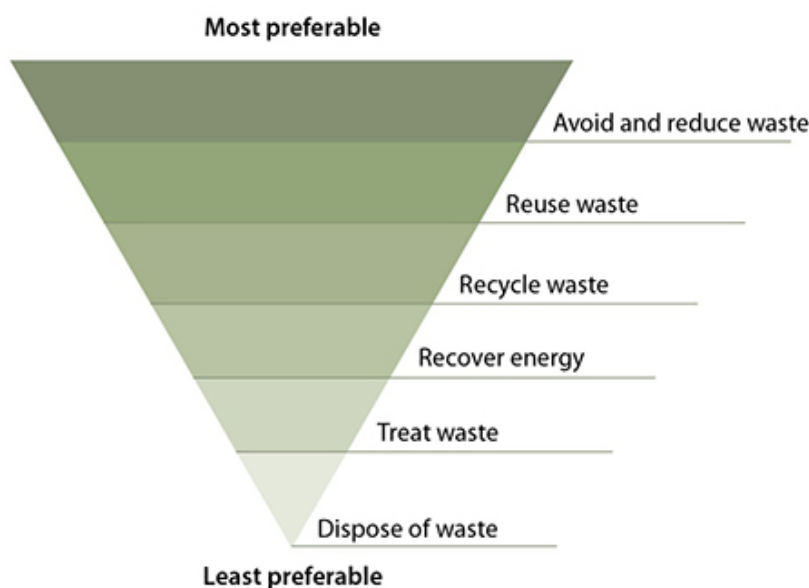


Figure 5-1 Waste management hierarchy - extract from *NSW Waste Avoidance and Resource Recovery Strategy 2014 - 21*, NSW EPA

5.1.1. Reduce or avoid

Reducing or avoiding the generation of waste is of primary importance to the Project. The following approach will be adopted:

- Consider construction options that have more opportunity for waste reduction than other alternatives
- Order materials / goods with minimal packaging or request suppliers to remove packaging from site
- Accurately estimate materials required to minimise wastage.

5.1.2. Reuse and recycling

Waste separation and segregation will be promoted onsite to facilitate reuse and recycling as a priority of the waste management program as follows:

- Segregate waste onsite – waste materials, including spoil and demolition waste, will be separated on site into dedicated bins / areas for either reuse onsite or collection by a waste contractor and transported to offsite facilities; where reasonable and feasible, secondary waste material will be used in construction.

5.1.3. Waste handling and storage

Where waste is required to be handled and stored onsite within the construction compound areas prior to onsite reuse or offsite recycling / disposal, the following measures apply:

- Spoil, topsoil and mulch are to be stockpiled onsite in allocated areas, and mitigation measures for dust control and surface water management will be implemented as per the Soil and Water Management Plan.
- Liquid wastes are to be stored in appropriate containers or area with appropriate bunding until transported offsite. Bunds will have the capacity to hold 120 per cent of the liquid waste volume for bulk storage or 120 per cent of the volume of the largest container for smaller packaged storage
- Hazardous waste will be managed by appropriately qualified and licensed contractors, in accordance with the requirements of the *Environmentally Hazardous Chemicals Act 1985* and the EPA waste disposal guidelines.

All other recyclable or non-recyclable wastes are to be stored in appropriate covered receptacles (e.g. bins or skips) in compound and stockpile sites onsite (and contractors will be commissioned to regularly remove/empty the bins to approved disposal or recycling facilities).

5.1.4. Waste disposal

Waste disposal is to be in accordance with the *Protection of the Environment Operations Act 1997* and the *Waste Avoidance and Resource Recovery Act 2001*. Wastes that are unable to be reused or recycled will be disposed of off-site to an EPA approved waste management facility following classification (refer to Appendix D). An example of a waste contact list with locations of waste management / disposal facilities is included in Appendix A. Details of waste types, volumes and destinations are to be recorded in the Waste Management Register in Appendix B.

Where possible, wastes will be removed off-site by a licenced transporter to a recycling facility or will be disposed of at a licensed waste facility.

5.2. Management of waste streams

The construction activities and types of wastes which may be generated during construction are outlined within classifications in Table 5-1.

Table 5-1 Management of waste streams

Construction Activity	Waste Type	Waste Classification	Storage and treatment onsite	Sampling and testing requirements	Proposed reuse/recycling/disposal methods	Reuse / Recycle Target
Office / staff operations	Paper, cardboard, recyclable plastic, soft plastic	General solid waste (non-putrescible)	Separate Bins emptied into secured comingled Bulk Bins	Visual	Resource recovery off-site - reprocessing at an appropriately licensed waste facility in accordance with the premises' Environment Protection Licence (where relevant) and the <i>Waste Classification Guidelines</i> .	100%
	Glass and aluminium	General solid waste (non-putrescible)	Separate Bins emptied into secured comingled Bulk Bins	Visual	Resource recovery off-site - reprocessing at an appropriately licensed waste facility in accordance with the premises' Environment Protection Licence (where relevant) and the <i>Waste Classification Guidelines</i> .	100%
	Food waste	General solid waste (non-putrescible)	Separate Bins emptied into secured comingled Bulk Bins	Visual	Disposal off-site at an appropriately licensed waste facility in accordance with the premises' Environment Protection Licence and the <i>Waste Classification Guidelines</i> .	0%
	Ink cartridges	General solid waste (non-putrescible)	Stored in Office server room	NA	Resource recovery off-site - reprocessing at an appropriately licensed waste facility in accordance with the premises' Environment Protection Licence (where relevant) and the <i>Waste</i>	100%

Construction Activity	Waste Type	Waste Classification	Storage and treatment onsite	Sampling and testing requirements	Proposed reuse/recycling/disposal methods	Reuse / Recycle Target
					<i>Classification Guidelines.</i>	
	Effluent	Liquid	Holding tank	NA	Off-site disposal, Picked up with bulk effluent tanker	0%
Site establishment	Removal of existing fences/ boundary features	General solid waste (non-putrescible)	Stockpile	NA	Off-site recycling. Loaded into tipper or flat bed truck	100%
Earthworks	<p>Excavated material</p> <p>Virgin Excavated Natural Material (VENM) is material:</p> <ul style="list-style-type: none"> That has been excavated or quarried from areas that are not contaminated with manufactured chemicals or process residues, as a result of industrial, commercial, mining, or agricultural activities. That does not contain sulfidic ores or soils. <p>Excavated Natural Material (ENM) is naturally occurring rock and soil (including materials such as sandstone, shale, clay and soil) that has:</p> <ul style="list-style-type: none"> Been excavated from 	<p>Classification based on soil tests carried out during construction and in accordance with <i>Protection of the Environment Operations Act 1997 (POEO Act)</i> and Waste Classification Guidelines: Part 1 and 2 (EPA 2014).</p> <p>VENM is a waste that has been pre-classified as general solid waste (non-putrescible). For more information see the EPA's VENM website.</p>	Stockpile	<p>Yes –</p> <p>ENM must be sampled, tested and contain contaminant levels less than the criteria listed in EPA's Excavated natural material order 2014 (ENM order) before the material is transported to the receiving site. Sample collection and testing methodology is detailed in the ENM order.</p> <p>VENM is to be sampled to confirm that the material is contaminate free.</p>	<p>Reused on-site. Topsoil to be segregated for reuse in rehabilitation. Excavated material may be used as aggregate for fill, footings, construction pads or road base.</p> <p>Where required, disposal off-site at an appropriately licensed waste facility in accordance with the premises' Environment Protection Licence and the <i>Waste Classification Guidelines.</i></p>	100%

Construction Activity	Waste Type	Waste Classification	Storage and treatment onsite	Sampling and testing requirements	Proposed reuse/recycling/disposal methods	Reuse / Recycle Target
	<p>the ground</p> <ul style="list-style-type: none"> Contains at least 98 per cent (by weight) natural material; and Does not meet the definition of VENM. 					
	Vegetation clearing and grubbing	General solid waste (non-putrescible)	Stockpile	On-site reuse (where possible)	Resource recovery off-site - reprocessing at an appropriately licensed waste facility in accordance with the premises' Environment Protection Licence (where relevant) and the <i>Waste Classification Guidelines</i> .	100%
	Weed material	General solid waste (non-putrescible)	Skip bin	NA	Weeds removed during work will be managed in accordance with the DPI requirements that relate to its classification status.	0%
Construction	Timber	General solid waste (non-putrescible)	Skip bin	No	Resource recovery off-site - Reuse, recycling, reprocessing or energy recovery at an appropriately licensed waste facility in accordance with the premises' Environment Protection Licence and the <i>Waste Classification Guidelines</i> .	100%
	Concrete waste	General solid waste (non-	Stockpile	No	Resource recovery off-site - Reuse, recycling,	80%

Construction Activity	Waste Type	Waste Classification	Storage and treatment onsite	Sampling and testing requirements	Proposed reuse/recycling/disposal methods	Reuse / Recycle Target
		putrescible)			reprocessing or energy recovery at an appropriately licensed waste facility in accordance with the premises' Environment Protection Licence and the <i>Waste Classification Guidelines</i> .	
	Packaging materials	General solid waste (non-putrescible)	Skip bin	No	Resource recovery off-site - Reuse, recycling, reprocessing or energy recovery at an appropriately licensed waste facility in accordance with the premises' Environment Protection Licence and the <i>Waste Classification Guidelines</i> .	100%
Plant and equipment maintenance	Liquid wastes - waste oil, coolants, lubricants.	Liquid waste	Containerised in covered bunded storage	No	Disposal off-site at an appropriately licensed waste facility in accordance with the premises' Environment Protection Licence and the <i>Waste Classification Guidelines</i> .	0%
	Tyres	Special waste	Stockpile	No	Resource recovery off-site - Reuse, recycling, reprocessing or energy recovery at an appropriately licensed waste facility in accordance with the premises' Environment Protection Licence and the <i>Waste Classification Guidelines</i> .	80%

Construction Activity	Waste Type	Waste Classification	Storage and treatment onsite	Sampling and testing requirements	Proposed reuse/recycling/disposal methods	Reuse / Recycle Target
	Batteries	Hazardous waste	Covered Bunded storage	No	Resource recovery off-site - Reuse, recycling, reprocessing or energy recovery at an appropriately licensed waste facility in accordance with the premises' Environment Protection Licence and the <i>Waste Classification Guidelines</i> .	100%
	Spill kit waste	General solid waste (non-putrescible)	Covered Bunded storage	No	Disposal off-site at an appropriately licensed waste facility in accordance with the premises' Environment Protection Licence and the <i>Waste Classification Guidelines</i> .	0%

5.3. Resource conservation

The Project team is dedicated to implementing resource conservation best practice and adopting energy efficient work practices. The Project will minimise consumption of:

- Fuel, oil and other consumables associated with the operation of plant and motor vehicles
- On-site electricity.

The energy efficiency and related carbon emissions will be considered in the selection of vehicle and plant equipment.

6. Environmental mitigation and management measures

A range of environmental requirements and control measures are identified in the approval documents for the Project. Specific actions and processes which will be implemented to comply and address the requirements and measures are outlined in Table 6-1.

Table 6-1 Waste, resource, and water management and mitigation measures

ID	Measure/Requirement	Resources	Timing	Responsibility	Reference
General					
WM1	All staff and sub-contractors will undergo a site induction and ongoing toolbox talks that will detail waste minimisation and reuse management measures, including the requirements of the waste management hierarchy. Waste minimisation training will include energy consumption awareness that promotes energy conservation methods including minimising energy use by switching off equipment when not in use.	Induction materials Toolbox materials	Construction	Project Manager Site Environmental Advisor (SEA)	Best Practice
WM2	Resource management hierarchy principles are to be followed: <ul style="list-style-type: none"> Avoid unnecessary resource consumption as a priority. Avoidance is followed by resource recovery (including reuse of materials, reprocessing, and recycling and energy recovery). Disposal is undertaken as a last resort (in accordance with the <i>Waste Avoidance & Resource Recovery Act 2001</i>). 		Construction	Site supervisor	CoA32 WM1
WM3	Minimise the waste generated by the development by implementing measures in this WMP.		Construction	Site supervisor	CoA32

ID	Measure/Requirement	Resources	Timing	Responsibility	Reference
WM4	Working areas are to be maintained, kept free of rubbish and cleaned up at the end of each working day.		Construction	Site supervisor	Best practice
WM5	All waste generated on site is to be transported off site and disposed of at landfill site approved to accept waste. When transporting or depositing the waste the contractor is to comply with Section 143 of the POEO Act.	Waste register (Appendix B)	Construction	Site supervisor SEA	CoA32 WM1
WM6	No waste is to be received onsite		Construction	Site supervisor SEA	CoA32
Reduce or avoid					
WM7	Minimise the use of geotextiles for temporary cover and sediment fence for sediment control – utilise soil polymer instead.		Construction	SEA	Best practice
WM8	No supply of disposable cups, plates, bowls or cutlery in crib huts or site offices.		Construction	Project Manager	Best practice
WM9	Calculate precise estimates prior to placing orders, particularly when estimating required volumes of concrete.		Construction	Site engineers	Best practice
WM10	Implement, where possible, agreements with suppliers to return excess construction materials or packaging for future reuse.		Construction	Site engineers	Best practice
Resource recovery (reuse, recycle)					
WM11	Excavated material will be reused on-site for fill		Construction	Site supervisor	Best practice

ID	Measure/Requirement	Resources	Timing	Responsibility	Reference
	where practicable.				
WM12	Glass, aluminium and plastic drink containers to be recycled. Recycling bins for drink containers to be provided in site offices and in/at door of the main crib hut. Containers to be deposited at the closest Return and Earn facility.		Construction	SEA	Best practice
WM13	Paper and cardboard to be recycled. Paper and cardboard recycling bins to be provided in site offices, which will be emptied into the paper and recycling skip bin to be collected by the Project's licenced waste contractor for offsite recycling.	Recycling bins	Construction	SEA	Best practice
WM14	Site surface water collected in sumps and other locations on site should be pumped into water carts for reuse as dust suppression.	Soil and Water Management Plan (SWMPNGH, 2023)	Construction	SEA	Best practice
WM15	Construction metal, steel and scrap aluminium to be collected and recycled through a licensed scrap metal recycler.		Construction	SEA	Best practice
Waste receptacles/storage					
WM16	Waste receptacles and site amenities will be inspected as part of the weekly environmental inspection to ensure waste is appropriately being disposed off, there is adequate capacity in bins onsite and no litter is present around the site.	Weekly environmental Inspection form	Construction	SEA	Best practice
WM17	Garbage receptacles will be provided. Rubbish will be transported to an appropriate waste disposal facility as soon as practical.		Construction	Foreman	CoA32

ID	Measure/Requirement	Resources	Timing	Responsibility	Reference
WM18	Ensure waste is contained in bins or waste areas in high winds or rain events.		Construction	Foreman	Best practice
WM19	Provide separate bins in your site compounds and all your site offices to promote recycling of materials such as paper, cardboard, glass, plastics and metals.		Construction	Foreman	Best practice
WM20	Provide appropriate size and type of containers in a locked storage area to store waste oils, liquids, fuels and chemicals.		Construction	Foreman	CoA32
WM21	Portable toilets will be provided for construction workers and will be managed by the service provider to ensure the appropriate disposal of sewage.		Construction	SEA	WM1
WM22	If concrete washout is required onsite, a dedicated concrete washout facility will be provided during construction so that run-off from the washing of concrete machinery and equipment can be collected and disposed of at an appropriate waste facility.		Construction	SEA	Best practice
Disposal					
WM23	All waste is to be classified in accordance with the EPA's Waste Classification Guidelines 2014	EPA's Waste Classification Guidelines 2014	Construction	Site Supervisor SEA	CoA32 WM1
WM24	All waste removed from site will be recorded in the Waste Register.	Waste register (Appendix B)	Construction	Site Supervisor SEA	CoA32 WM1 Best practice
WM25	Waste leaving site is to be covered.		Construction	Site Supervisor	WM1

ID	Measure/Requirement	Resources	Timing	Responsibility	Reference
				SEA	
WM26	Once the works have been completed, all waste material is to be removed from site, recycled or disposed of at a licenced facility. Waste is not to be buried on site.		Construction	Site Supervisor SEA	CoA32 Best practice
Weed removal					
WM27	Priority weeds removed during work will be managed in accordance with the DPI requirements that relate to its classification status and disposed of at a licensed landfill facility.	Weed and Pest Management Plan	Construction	Site Supervisor SEA	Best practice
Record keeping					
WM28	Obtain copies of licences or licence numbers (under the <i>Waste Avoidance and Resource Recovery Act 2001</i>) for transporters of industrial/hazardous waste, industrial/hazardous waste treatment facilities and waste disposal facilities and provide these to Neoen, prior to disposal of these wastes.		Construction	Site Supervisor SEA	Best practice

7. Compliance management

7.1. Roles and responsibilities

Section 4.8 of the EMS describes the roles and responsibilities of Neoen's Project team in relation to environmental management. Specific responsibilities for the implementation of environmental controls are detailed in Section 5 of this plan.

7.2. Training

All employees, contractors and utility staff working on site will undergo site induction training relating to waste and resource management issues. The induction training will address elements related to waste and resource management including:

- Relevant and applicable legislation
- Requirements and responsibilities of this plan
- Implementation of the waste hierarchy
- Waste handling requirements and details of the waste streams that are intended for offsite and on site reuse
- Type and location of waste receptacles
- Other specific responsibilities for waste and reuse management.

Further details regarding staff induction and training are outlined in Section 7 of the EMS

7.3. Monitoring and inspections

Regular monitoring and inspections will be undertaken during construction; frequencies and responsibilities are outlined in Table 7-1 below.

Table 7-1 Waste monitoring requirements for the Project

Monitoring requirement	Frequency	Responsibility	Record
Waste tracking for materials taken to a licenced facility	When waste taken offsite. Waste Register to be updated regularly.	SEA	Waste Register
	When waste taken offsite to a waste facility.	SEA	Waste dockets
	When EPA 'Trackable' waste taken offsite.	SEA	Transportation dockets
Inspections for litter, materials management, unauthorised disposal of construction waste streams and adequacy of capacity of waste receptacles	Weekly	SEA	Environmental Inspection Form

7.4. Auditing

Audits (both internal and external) will be undertaken to assess the effectiveness of environmental controls, compliance with this sub plan, infrastructure approval and other relevant approvals, licences, and guidelines. Audit requirements are detailed in Section 10.3 of the EMS.

7.5. Reporting

Reporting requirements and responsibilities are documented in Section 10.4 of the EMS.

A Waste Management Register (example in Appendix B) will be maintained until the Actual Completion Date to record the type, amount and location of waste reused, recycled, stockpiled and disposed of.

7.5.1. Incident reporting

In accordance with Condition 7 of Schedule 4 of the Development Consent, the Planning Secretary must be notified in writing via the Major Projects website immediately after Neoen becomes aware of an incident.

Written notification of an incident must:

- a) Identify the development and application number
- b) Provide details of the incident (date, time, location, a brief description of what occurred and why it is classified as an incident)
- c) Identify how the incident was detected
- d) Identify when the applicant became aware of the incident
- e) Identify any actual or potential non-compliance with conditions of consent
- f) Describe what immediate steps were taken in relation to the incident
- g) Identify further action(s) that will be taken in relation to the incident
- h) Identify a project contact for further communication regarding the incident.

As per Appendix 7 of the CoA (Incident Notification and Reporting Requirements), within 30 days of the date on which the incident occurred or as otherwise agreed to by the Planning Secretary, the Applicant must provide the Planning Secretary and any relevant public authorities (as determined by the Planning Secretary) with a detailed report on the incident addressing all requirements below, and such further reports as may be requested.

The Incident Report must also include:

- a) A summary of the incident
- b) Outcomes of an incident investigation, including identification of the cause of the incident
- c) Details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence
- d) Details of any communication with other stakeholders regarding the incident.

All written requirements of the Planning Secretary or relevant public authority, which may be given at any point in time, to address the cause or impact of an incident must be complied with, within any timeframe specified by the Planning Secretary or relevant public authority.

Non-compliances

Non-compliances will be reported in accordance with Section 10.4 of the EMS, and the Planning Secretary (DPE) must be notified in writing via the Major Projects website within seven days after the Applicant becomes aware of any non-compliance.

A non-compliance notification must identify:

- The development and the application number for it,
- Set out the condition of consent that the development is non-compliant with,

- The way in which it does not comply
- The reasons for the non-compliance (if known) and
- What actions have been, or will be, undertaken to address the non-compliance.

It should be noted that as per the requirements of Schedule 4, Condition 10, a non-compliance which has been notified as an incident, does not need to also be notified as a non-compliance.

8. Review and improvement

8.1. Continuous improvement

Continuous improvement of this Plan will be achieved by the ongoing evaluation of environmental management performance against environmental policies, objectives and targets for the purpose of identifying opportunities for improvement.

The continuous improvement process will be designed to:

- Identify areas of opportunity for improvement of environmental management and performance
- Determine the cause or causes of non-conformances and deficiencies
- Develop and implement a plan of corrective and preventative action to address any non-conformances and deficiencies
- Verify the effectiveness of the corrective and preventative actions
- Document any changes in procedures resulting from process improvement
- Make comparisons with objectives and targets.

8.2. WMP update and amendment

A document review process ensures that environmental documentation including this WMP is updated as appropriate for the specific works that are occurring on-site. Reviews of the WMP are expected to be triggered as relevant, by:

- Independent Environmental Audit
- Internal audits
- Additional environmental aspects and risks
- Environmental near misses and incidents
- Project stage change between construction, operation, and decommissioning.

Should the document review process identify any issues or items within the documents that are either redundant or in need of updating, it is the responsibility of the Neoen Project Manager or delegate to prepare the revised documents.

In accordance with Condition 2 of Schedule 4 of the Development Consent, within 1 month, unless otherwise agreed with the Planning Secretary, of:

- The submission of an incident report under Condition 7 of Schedule 4
- The submission of an audit report under Condition 11 of Schedule 4
- Any modification to the conditions of this consent.

The Neoen Project Manager or delegate must review, and if necessary, revise the strategies, plans, and programs required under the Development Consent to the satisfaction of the Planning Secretary.

Where this review leads to revisions in any such document, then within four weeks of the review, the revised document will be submitted to the Planning Secretary for review and approval, unless otherwise agreed with the Planning Secretary.

In accordance with Condition 3 of Schedule 4 and agreement of the Planning Secretary, revised strategies, plan or programs may be prepared without undertaking consultation with all parties nominated under the applicable condition in this approval.

Only the Neoen Project Manager, or delegate, has the authority to change any of the environmental management documentation.

In addition, the processes described in Section 11 of the EMS may result in the need to update or revise this Plan. This will occur as needed.

A copy of the updated plan and changes will be distributed to all relevant stakeholders in accordance with the approved document control procedure – refer to Section 12.2 of the EMS.

Appendix A Proposed Waste Facilities

Contractor/waste facility	Details	Contact details	Waste accepted	Waste recycled
<p><i>Waste contractors subject to refinement following contract negotiations</i></p>				

Appendix B Waste Management Register

Date / time	Waste classification	Description of waste	Amount (tonnes)	Transporter and licence (if applicable)	Receiving facility	Material use (reused, recycled, stockpiled or disposed)	Invoice no. or reference no.

Appendix C List of Pre-Classified Waste

Appendix C will be applicable if any specific waste mitigation measures are required. The *Protection of the Environment and Operations Act 1997* should be regularly checked for updates.

Waste Classification – *Protection of the Environment and Operations Act 1997*

(1) **Part 3 Definitions**

(2) **Division 1 Waste classifications**

(3) **49 Definitions of waste classifications**

(4) In this Schedule:

general solid waste (non-putrescible) means waste (other than special waste, hazardous waste, restricted solid waste, general solid waste (putrescible) or liquid waste) that includes any of the following:

- (a) glass, plastic, rubber, plasterboard, ceramics, bricks, concrete or metal,
- (b) paper or cardboard,
- (c) household waste from municipal clean-up that does not contain food waste,
- (d) waste collected by or on behalf of local councils from street sweeping,
- (e) grit, sediment, litter and gross pollutants collected in, and removed from, stormwater treatment devices or stormwater management systems, that has been dewatered so that it does not contain free liquids,
- (f) grit and screenings from potable water and water reticulation plants that has been dewatered so that it does not contain free liquids,
- (g) garden waste,
- (h) wood waste,
- (i) waste contaminated with lead (including lead paint waste) from residential premises or educational or child care institutions,
- (j) containers, having previously contained dangerous goods, from which residues have been removed by washing or vacuuming,
- (k) drained oil filters (mechanically crushed), rags and oil absorbent materials that only contain non-volatile petroleum hydrocarbons and do not contain free liquids,
- (l) drained motor oil containers that do not contain free liquids,
- (m) non-putrescible vegetative waste from agriculture, silviculture or horticulture,
- (n) building cavity dust waste removed from residential premises, or educational or child care institutions, being waste that is packaged securely to prevent dust emissions and direct contact,
- (o) synthetic fibre waste (from materials such as fibreglass, polyesters and other plastics) being waste that is packaged securely to prevent dust emissions, but excluding asbestos waste,
- (p) virgin excavated natural material,
- (q) building and demolition waste,
- (r) asphalt waste (including asphalt resulting from road construction and waterproofing works),
- (s) biosolids categorised as unrestricted use, or as restricted use 1, 2 or 3, in accordance with the criteria set out in the Biosolids Guidelines,
- (t) cured concrete waste from a batch plant,
- (u) fully cured and set thermosetting polymers and fibre reinforcing resins,

- (v) fully cured and dried residues of resins, glues, paints, coatings and inks,
- (w) anything that is classified as general solid waste (non-putrescible) pursuant to an EPA Gazettal notice,
- (x) anything that is classified as general solid waste (non-putrescible) pursuant to the Waste Classification Guidelines,
- (y) any mixture of anything referred to in paragraphs (a)–(x).

general solid waste (putrescible) means waste (other than special waste, hazardous waste, restricted solid waste or liquid waste) that includes any of the following:

- (a) household waste containing putrescible organics,
- (b) waste from litter bins collected by or on behalf of local councils,
- (c) manure and nightsoil,
- (d) disposable nappies, incontinence pads or sanitary napkins,
- (e) food waste,
- (f) animal waste,
- (g) grit or screenings from sewage treatment systems that have been dewatered so that the grit or screenings do not contain free liquids,
- (h) anything that is classified as general solid waste (putrescible) pursuant to an EPA Gazettal notice,
- (i) anything that is classified as general solid waste (putrescible) pursuant to the Waste Classification Guidelines,
- (j) a mixture of anything referred to in paragraphs (a)–(i).

hazardous waste means waste (other than special waste or liquid waste) that includes any of the following:

- (a) anything that is classified as:
 - (i) a substance of Class 1, 2, 5 or 8 within the meaning of the Transport of Dangerous Goods Code, or
 - (ii) a substance to which Division 4.1, 4.2, 4.3 or 6.1 of the Transport of Dangerous Goods Code applies,
- (b) containers, having previously contained:
 - (i) a substance of Class 1, 3, 4, 5 or 8 within the meaning of the Transport of Dangerous Goods Code, or
 - (ii) a substance to which Division 6.1 of the Transport of Dangerous Goods Code applies, from which residues have not been removed by washing or vacuuming,
- (c) coal tar or coal tar pitch waste (being the tarry residue from the heating, processing or burning of coal or coke) comprising more than 1% (by weight) of coal tar or coal tar pitch waste,
- (d) lead-acid or nickel-cadmium batteries (being waste generated or separately collected by activities carried out for business, commercial or community services purposes),
- (e) lead paint waste arising otherwise than from residential premises or educational or child care institutions,

- (f) anything that is classified as hazardous waste pursuant to an EPA Gazettal notice,
- (g) anything that is classified as hazardous waste pursuant to the Waste Classification Guidelines,
- (h) a mixture of anything referred to in paragraphs (a)–(g).

liquid waste means any waste (other than special waste) that includes any of the following:

- (a) anything that:
 - (i) has an angle of repose of less than 5 degrees above horizontal, or
 - (ii) becomes free-flowing at or below 60°C or when it is transported, or
 - (iii) is generally not capable of being picked up by a spade or shovel,
- (b) anything that is classified as liquid waste pursuant to an EPA Gazettal notice.

restricted solid waste means any waste (other than special waste, hazardous waste or liquid waste) that includes any of the following:

- (a) anything that is classified as restricted solid waste pursuant to the Waste Classification Guidelines,
- (b) anything that is classified as restricted solid waste pursuant to an EPA Gazettal notice.

special waste means any of the following:

- (a) clinical and related waste,
- (b) asbestos waste,
- (c) waste tyres,
- (d) anything that is classified as special waste pursuant to an EPA Gazettal notice.

(5) Despite subclause (1), in this Schedule, any waste that is classified as one of the following classes of waste, in accordance with an immobilised contaminants approval granted under Part 10 of the [Protection of the Environment Operations \(Waste\) Regulation 2014](#), is taken to be waste of that class:

- (a) general solid waste (non-putrescible),
- (b) general solid waste (putrescible),
- (c) hazardous waste,
- (d) restricted solid waste,
- (e) special waste

Appendix D Classification of Waste Streams

Classification of waste streams

Where waste cannot be avoided, reused or recycled (refer Figure 5-1) it will be classified and appropriate disposal will then occur. The classification of waste is undertaken in accordance with the NSW EPA's Waste Classification Guidelines Part 1: Classifying Waste (2014). This document identifies six classes of waste: Special, Liquid, Hazardous, Restricted Solid, General Solid (putrescible) and General Solid (non-putrescible). It describes a six-step process to classifying waste. That process is described below:

Step 1: Is it 'special waste'?

Establish if the waste should be classified as special waste. Special wastes are: clinical and related, asbestos, waste tyres. Definitions are provided in the guidelines.

Note: Asbestos and clinical wastes must be managed in accordance with the requirements of Clauses 42 and 43 of the Protection of the Environment Operations (Waste) Regulation 2005.

Step 2: If not special, is it 'liquid waste'?

If it is established that the waste is not special waste it must be decided whether it is 'liquid waste'. Liquid waste means any waste that: has an angle of repose of less than 5° above horizontal, becomes free-flowing at or below 60° Celsius or when it is transported is generally not capable of being picked up by a spade or shovel.

Liquid wastes are sub-classified into:

- Sewer and stormwater effluent
- Trackable liquid waste according to Protection of the Environment Operations (Waste) Regulation 2005 Schedule 1 Waste to which waste tracking requirements apply
- Non-trackable liquid waste.

Step 3: If not liquid, has the waste already been pre-classified by the NSW EPA?

The EPA has pre-classified several commonly generated wastes in the categories of hazardous, general solid waste (putrescibles) and general solid waste (non-putrescibles). If a waste is listed as 'pre-classified', no further assessment is required. Pre-classified wastes are identified in Part 3 of Schedule 1 of the POEO Act (Appendix C).

Step 4: If not pre-classified, is the waste hazardous?

If the waste is not special waste (other than asbestos waste), liquid waste or pre-classified, establish if it has certain hazardous characteristics and can therefore be classified as hazardous waste.

Hazardous waste includes items such as explosives, flammable solids, substances liable to spontaneous combustion, oxidizing agents, toxic substances and corrosive substances.

Step 5: If the waste does not have hazardous characteristics, undertake chemical assessment to determine classification.

If the waste does not possess hazardous characteristics, it needs to be chemically assessed to determine whether it is hazardous, restricted solid or general solid waste (putrescible and non-putrescible). If the waste is not chemically assessed, it must be treated as hazardous.

Waste is assessed by comparing Specific Contaminant Concentrations (SCC) of each chemical contaminant, and where required the leachable concentration using the Toxicity Characteristics Leaching Procedure (TCLP), against Contaminant Thresholds (CT).

Step 6: Is the general solid waste putrescible or non-putrescible?

If the waste is chemically assessed as general solid waste, a further assessment is available to determine whether the waste is putrescible or non-putrescible. The assessment determines whether the waste is

capable of significant biological transformation. If this assessment is not undertaken, the waste must be managed as general solid waste (putrescible).