


# Waste Management Sub Plan



<b>Project Name:</b>	Sydney Metro West		
<b>Client Name:</b>	Sydney Metro		
<b>Project Address:</b>	Delta will demolish buildings across the following sites: 1. Parramatta 2. Clyde 3. Westmead		
<b>Project Description/Scope:</b>	Delta Pty Ltd (Delta) is responsible for the full structural demolition of existing structures including removal of all hazardous materials of the Sydney Metro West Demolition Project.		
<b>Prepared By:</b> CEnvP No. 1389	Name: [REDACTED]	Signature: [REDACTED] 	Date: 12/08/2021
<b>Reviewed By:</b> (Project Manager)	Name [REDACTED]	Signature: [REDACTED]	Date: 18/08/2021
<b>Authorised By:</b> (Project Director):	Name: [REDACTED]	Signature: [REDACTED]	Date: 25/08/2021

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# 1 AUTHORISATION AND CONTROL

## 1.1 Authorisation

This Plan is authorised by the Project Director. All project personnel are to ensure that their work activities and those of Project Consultants, Contractors and Suppliers are carried out in accordance with the requirements of this Plan.

## 1.2 Distribution

This Plan is a Controlled Document and must be distributed and revised under the guidance of the Project Manager. People who hold Controlled copies are responsible for maintaining their copies up-to-date.

## 1.3 Revision

The Project Director will monitor the implementation of this Plan and review the need for change or improvements having due regard to:

- Change in work scope, client comments etc.
- Internal and external audits
- Suggestions and comments from project personnel
- Incidence and frequency of non-conformance
- Necessity for corrective or preventative action
- Legal Update and Requirements
- Review by Delta Groups Management team
- Annual Review

All changes must be formally approved by the Project Director.

Changes to the recent revision will be highlighted.

The following table provides a record of amendments made to this document.

Rev	Date	Description	Page	Developed By	Approved By
DRAFT	12/08/2021	Draft – Issued for comment	All	[REDACTED]	[REDACTED]
0	18/08/2021	Draft updated for issue	All	[REDACTED]	[REDACTED]
1	30/09/2021	Updated to address comments	All	[REDACTED]	[REDACTED]
2	18/10/2021	Updated to include Stakeholder Comments	All	[REDACTED]	[REDACTED]
3	2/12/2021	Updated Project Description and included Phase C2 requirements	All	[REDACTED]	[REDACTED]
4	16/12/2021	Updated to address comments	All	[REDACTED]	[REDACTED]

Distribution Register			
Rev No.	Date of Issue	Name of Recipient	Position / Organisation
0	25/08/2021	[REDACTED]	Principal Representative
1	30/09/2021	[REDACTED]	Principal Representative
2	18/10/2021	[REDACTED]	Principal Representative
3	02/12/2021	[REDACTED]	Principal Representative
4	16/12/2021	[REDACTED]	Principal Representative



## 2 INTRODUCTION

### 2.1 Purpose

This Waste Management Sub Plan (WMSP) has been prepared by Delta Pty Ltd. (Delta) to comply with the Minister for Planning and Environment's Conditions of Approval (CoA) for the demolition phase of the Sydney Metro West Project and to meet the requirements of Section 10 of the Sydney Metro West Parramatta and Clyde Enabling Works General Specification – Schedule C1 (SM-21-00257367), and the Construction Environment Management Framework (CEMF).

Delta has been engaged to carry out the demolition of buildings and described in Section 2.3. The demolition of these buildings and structures is defined in this WMSP as “the Project”.

This WMSP provides specific management measures to ensure that Delta's demolition works are carried out so as to manage waste in a sustainable manner and, where possible, provide enhanced environmental outcomes.

Implementing the WMSP effectively will ensure that the Project meets regulatory and contract requirements in a systematic manner and continually improves its performance.

### 2.2 Scope of the WMSP

This WMSP addresses sustainability aspects and measures associated with the Project. It covers all areas where physical works will occur, or areas that may be impacted by the works, including procurement, demolition, and disposal, and is applicable over the full duration of the Project.

This WMSP will be staged according to each relevant Package and Portion of demolition.

This plan forms part of the project management documentation that has been prepared in accordance with the requirements of the Contract. The Project will be guided by Delta's Integrated Management System (IMS). Delta's IMS is certified as meeting the requirements of:

- AS45001 Occupational Health and Safety Management Systems;
- ISO14001 Environmental management; and
- ISO9001 Quality Management Systems.

All Delta staff and subcontractors are required to comply fully with the requirements of this WMSP.

### 2.3 Environmental Policy

Delta's Environmental Policy is entrenched firmly in furthering waste management and sustainability in all of its operations. Delta's Environmental Policy is

*“... not limited to minimising the environmental impact of our operations, but to actively take steps to reduce our energy usage, to reduce waste, to recycle everything we can, and to be rigorous about safe disposal of any residual contaminants in strict compliance with regulatory requirements”.*

### 2.4 Waste Management Objectives

Delta's objectives for waste management throughout the Project are:

- To minimise waste throughout the project life-cycle; and
- To implement waste management strategies in accordance with the *Waste Avoidance and Resource Recovery Act 2001* management hierarchy as follows;
  - Avoidance of unnecessary resource consumption;
  - Resource recovery (including reuse, reprocessing, recycling and energy recovery); and
  - Disposal.

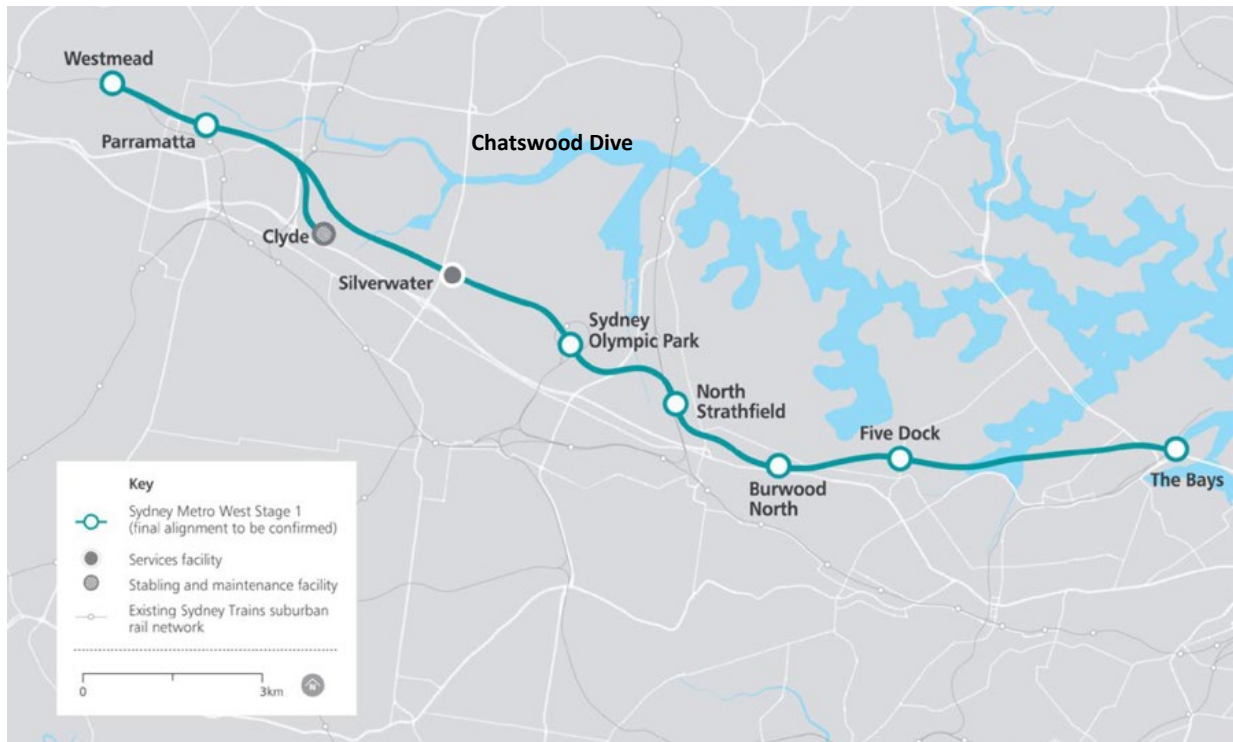
### 3 Project Description

#### 3.1 Overall

The Sydney Metro West project is a new 24-kilometre metro line with stations confirmed at Westmead, Parramatta, Sydney Olympic Park, North Strathfield, Burwood North, Five Dock, The Bays, Pyrmont and Hunter Street in the Sydney CBD (see **Figure 1**).

In order to enable the next phase of the overall Sydney Metro West Project, the Principal requires the demolition of all structures, and clearance of all vegetation (with the exception of riparian vegetation at Clyde) within three sites located in Clyde, Parramatta and Westmead. **Figures 2, 3 & 4** show each of the sites and specific buildings to be demolished.

Delta will be delivering the Parramatta, Clyde, and Westmead Enabling Works package (Phase C1), and the archaeological testing at Parramatta and Clyde (Phase C2). Phase C1 of works are generally broken down into the following stages including; site establishment works, service disconnections and relocations, hazardous materials (HAZMAT) removal, internal strip-out of structures, demolition of existing structures and site clearing. These stages of works will apply to each of the sites. The archaeological testing at Parramatta and Clyde (Phase C2) will be staged as the study areas become available.



**Figure 1 Sydney Metro West project**

Source: Sydney Metro.

#### 3.2 Site establishment works (Phase C1)

Site establishment works are required to facilitate the overall works and are generally considered to be relatively low impact works. These activities will generally be undertaken in accordance with the Sydney Metro West Low Impact Works approval pathway in accordance with MCoA A21 or under an approved Site Establishment Management Plan (SEMP) in accordance with MCoA A19. Any SEMP must be submitted to the Planning Secretary for approval one (1) month before the establishment of any ancillary facilities. Once the CEMP and relevant Sub Plans approved, any outstanding site establishment works will be managed in accordance with the project CEMP and relevant sub plans.

Site establishment works will generally include:

- Initial site investigations (e.g., specialist consultant inspections or surveys);

- Establishing perimeter security (e.g., installation of hoarding, fencing and boundary screening);
- Establishing environmental controls (e.g., erosion and sediment controls, and bat roosting boxes (if required));
- Salvaging any potential items identified by the Principal that may have heritage value; and
- Installation of site amenities and associated infrastructure (e.g., site sheds).

Note that in accordance with MCoA 21, the use of an ancillary facility for construction must not commence until the CEMP required by Condition C1 of this schedule, relevant CEMP Sub-plans required by Condition C5 of this schedule and relevant Construction Monitoring Programs required by Condition C14 of this schedule have been approved by the Planning Secretary or endorsed by the ER (whichever is applicable). Also noting that the requirement of Condition 21 does not apply to Condition A21 of this schedule or where the use of an ancillary facility is Low Impact Work or for Low Impact Work. In addition, Delta will be undertaking the Parramatta and Clyde archaeological investigative works (Phase C2).

### 3.3 Service disconnections and relocations (Phase C1)

Each site has a number of services that require disconnection and/or relocation in order to facilitate the safe demolition of structures and future phases of work on the site. Access to all utilities and properties will be maintained during works, unless otherwise agreed with the relevant utility owner, landowner or occupier. Service disconnection and/or relocation includes:

Service disconnection generally includes:

- Service location, generally using non-destructive techniques where appropriate;
- Accessing services via existing structures or via targeted excavation;
- Disconnecting relevant service in accordance with relevant requirements and approvals;

Relocating services generally includes:

- Service location, generally using non-destructive techniques where appropriate;
- Installing services via existing structures or via targeted excavation; and
- Connecting relevant service in accordance with relevant requirements and approvals;

### 3.4 Hazardous materials (HAZMAT) removal (Phase C1)

Due to the age of various structures to be demolished, there are number of sites that have been identified to contain hazardous materials such as asbestos, lead paint and dust. This material identified through target surveys and will be safely removed by appropriately licensed removalists prior to undertaking the strip-out or demolition.

Hazardous materials removal works will generally include:

- Accessing the site;
- Establishing appropriate controls and exclusion zones for the hazard;
- Licensed removalist will use relevant tools to safely undertake the strip-out;
- Waste is managed and disposed to an appropriately licensed facility; and
- Validation of removal works by an appropriately qualified professional (e.g., Licensed Asbestos Assessor)

### 3.5 Internal strip-out of structures (Phase C1)

To allow safe structural demolition, Delta will perform an internal strip-out of internal materials. This would include items such as; office furniture and internal fixtures and linings.

Internal strip-out works will generally include:



- Accessing the site;
- Using appropriate tools and machinery to remove items;
- Managing waste and recycling; and
- Making safe for the final demolition work.

### 3.6 Demolition of existing structures and site clearing (Phase C1)

Delta has been engaged to undertake the demolition of all structures within the nominated sites down to slab level. Structural demolition works will generally include:

- Use of mechanical demolition methods e.g. Using Excavators with hydraulic attachments to demolish buildings.
  - Demolition will predominantly by completed top-down methodologies;
  - Mechanical demolition will be used either working from the slab on ground reaching up to the height of structure; or
  - Mechanical demolition with excavators working on top of the structure progressively demolishing level by level.
- Using appropriate tools and machinery to demolish items;
- Removal of underground services to 1.5m below ground level at Westmead;
- Managing waste and recycling; and
- Making safe for handover.

External site clearing of vegetation will be undertaken during demolition and/or concurrently with other stages of the works. Site clearing will generally include:

- Use of available machinery to remove vegetation;
- Use of an arborist to remove trees where there is a safety or ecological requirement (e.g., where there is potential to damage neighbouring buildings or structures to be retained or where an ecologist has noted it is as a requirement);
- Manage the waste; and
- Pre and Post Clearing inspections and reporting.

### 3.7 Archaeological test excavation and related investigations (Phase C2)

Archaeological test excavation and related investigations are required at the Parramatta and Clyde sites as identified in the Aboriginal Cultural Heritage Assessment Report of the EIS Stage 1. Delta will facilitate the excavation and spoil management requirements of the archaeological investigation. The archaeological investigation works will be undertaken by a Heritage specialist in accordance with the Archaeological Research Design and Excavation Methodology (ARDEM) 2021 and AHR 2021. The approximate extent of the Phase C2 works are shown in Figures 2 and 3 below.

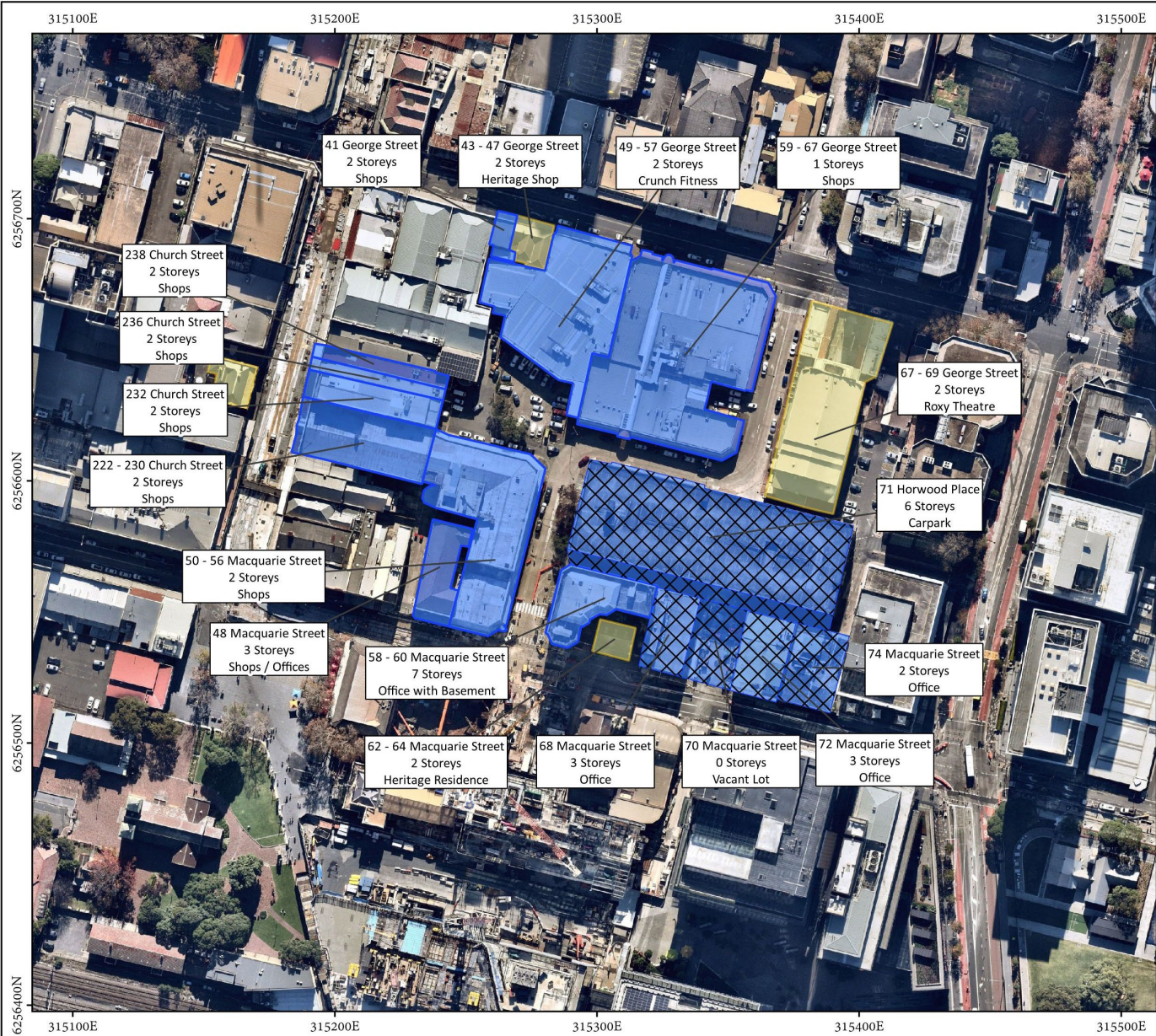
The investigation works will generally include:

- Test excavation;
- Salvage excavation;
- Archaeological monitoring if localised or shallow excavations are proposed in areas of potential and are not expected to impact significant archaeology; and
- Review for opportunities for conservation/relocation/interpretation of state significant archaeology to salvage.

Approximately 27,000 tonnes of spoil will be generated to facilitate archaeological clearance activities at Clyde and Parramatta. Of this 27,000 tonnes, approximately 20,000 tonnes of spoil will be transported offsite from the

Parramatta works and 7,000 tonnes of spoil would be stockpiled at Clyde and used to backfill the trenches created during the archaeological clearance works at Clyde.





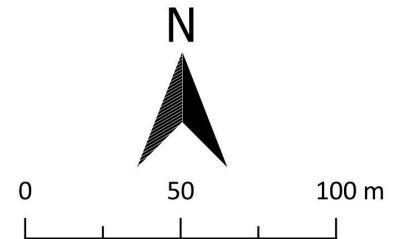
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Figure Number:	<b>02</b>
Title:	<b>Sydney Metro West</b>
Project ID:	<b>PRJ000712_Sydney_Metro_West</b>
Client Name:	<b>Delta Group</b>
Project Description:	<b>CEMP</b>

Map Scale:	<b>1:2,100</b>						
CRS:	<b>GDA2020 / MGA zone 56</b>						
Source:	<b>Source: Nearmaps 05/06/2021</b>						
Prepared:	EW	Reviewed:	WD	Date:	30/11/2021	Revision:	2

**Legend**

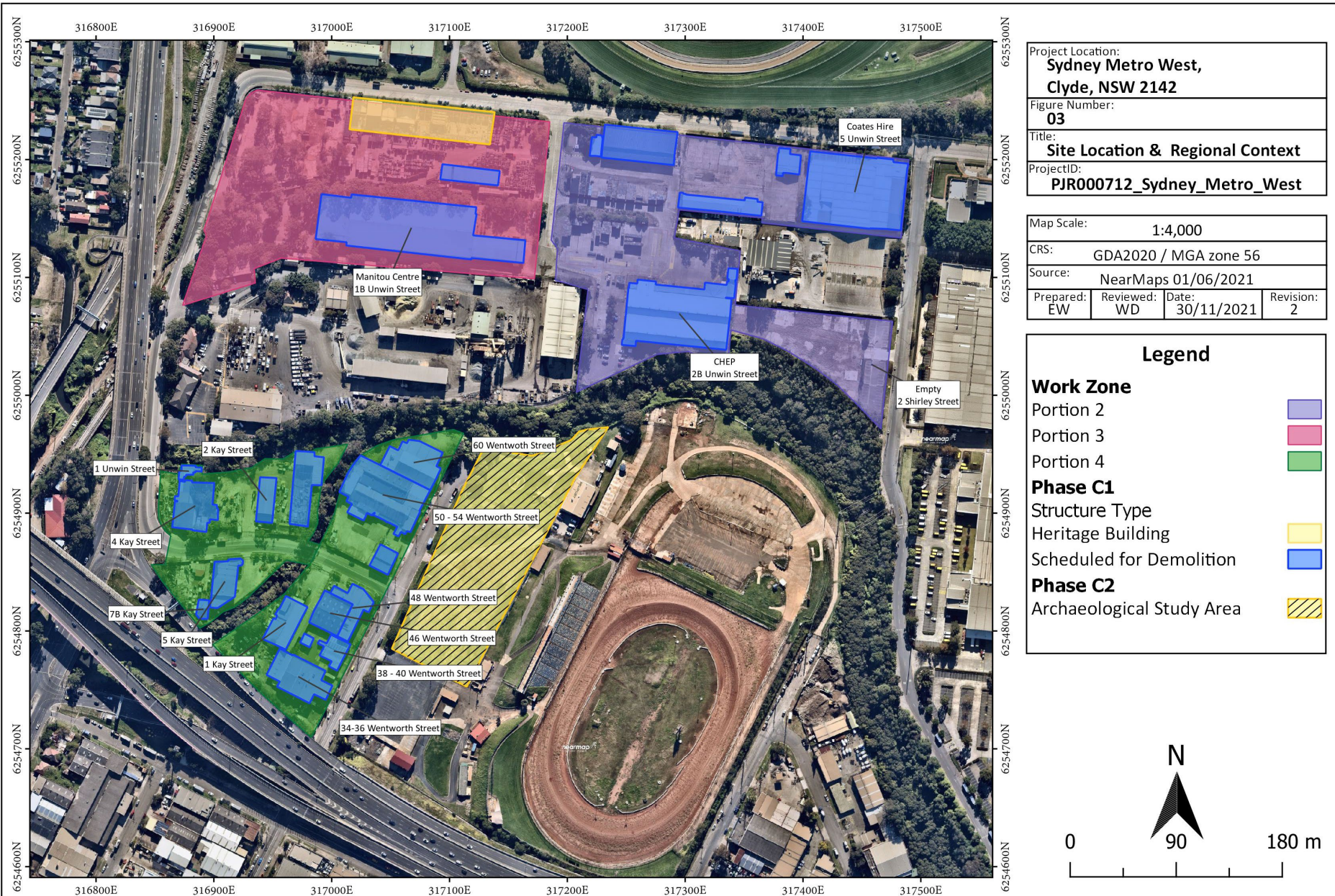
**Phase C1**  
Structure Type  
Heritage Building   
Scheduled for Demolition (Phase C1)

**Phase C2**  
Structure Type  
Archaeological Survey (Phase C2)



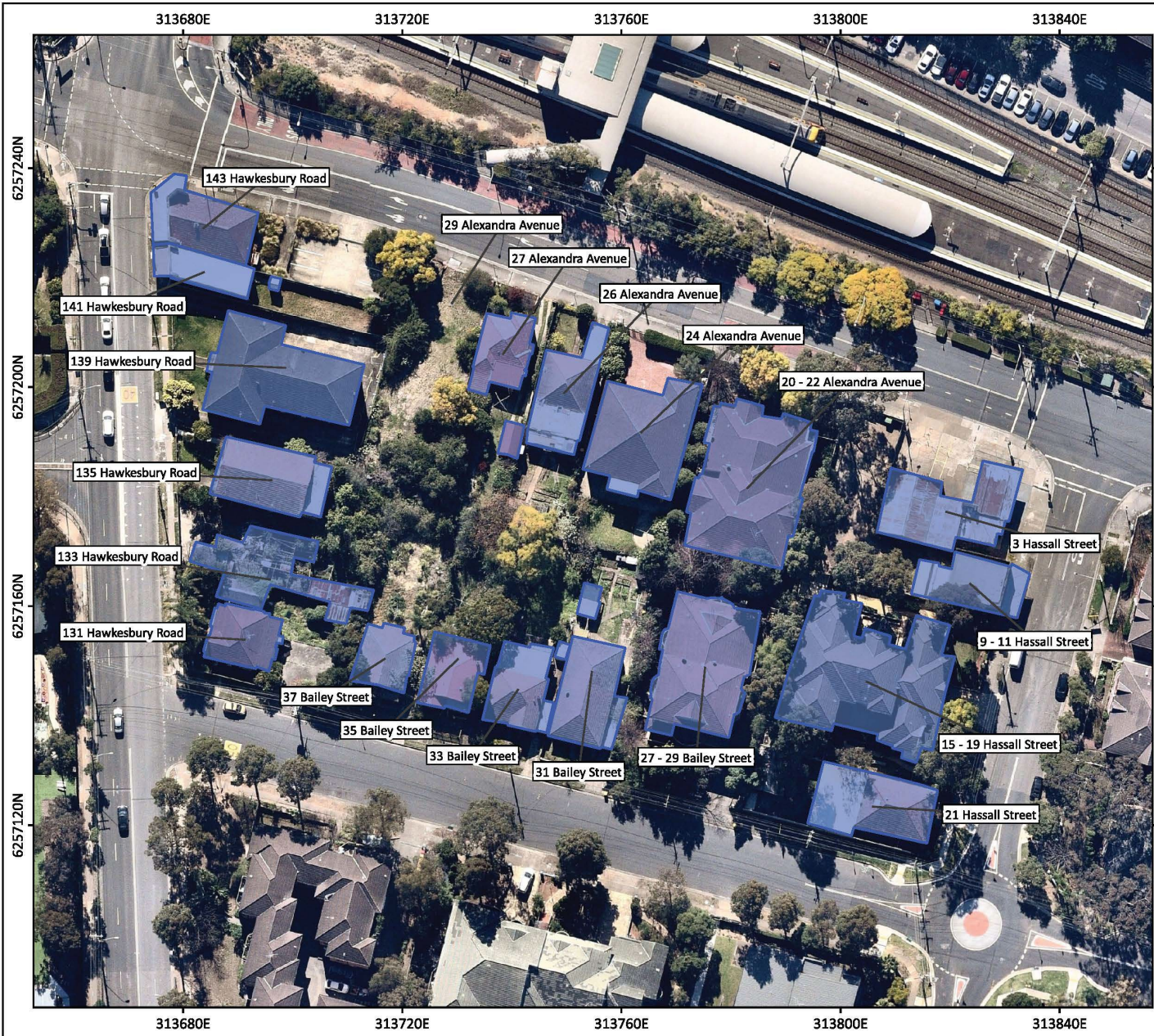
Disclaimer: Property Risk Australia Pty Ltd (PRA) compiled this map from numerous sources to provide a summary of spatial information for this project. This map is not prepared for or suitable for legal, engineering or surveying purpose.





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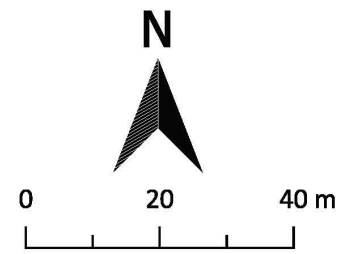




Project Location:	<b>Sydney Metro West Westmead, NSW 2145</b>
Figure Number:	<b>04</b>
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Project ID:	<b>PRJ000712_Sydney_Metro_West</b>
Client Name:	<b>Delta Group</b>
Project Description:	<b>CEMP - Westmead</b>

Map Scale:	<b>1:1,000</b>
CRS:	<b>GDA2020 / MGA zone 56</b>
Source:	<b>Source: Nearmaps 05/06/2021</b>
Prepared:	<b>EW</b>
Reviewed:	<b>WD</b>
Date:	<b>17/08/2021</b>

Legend	
Structure Type	
Scheduled for Demolition	<span style="display: inline-block; width: 15px; height: 10px; background-color: #4a7ebb; border: 1px solid black;"></span>



Disclaimer: Property Risk Australia Pty Ltd (PRA) compiled this map from numerous sources to provide a summary of spatial information for this project. This map is not prepared for or suitable for legal, engineering or surveying purpose.



## 4 LEGAL AND OTHER REQUIREMENTS

### 4.1 Legislation

Delta will carry out its works on the Project in accordance with the following legislation relevant to waste and resource management:

- Protection of the Environment Operations Act 1997;
- Protection of the Environment Operations (Waste) Regulation 2014;
- Waste Avoidance and Resource Recovery Act 2001; and
- Work Health and Safety Act 2011.

### 4.2 Guidelines and Other Documents

The primary guidelines and policy documents relevant to Delta's WMSP include:

- EPA Waste Classification Guidelines Part 1: Classifying Waste (2014);
- EPA Waste Classification Guidelines Part 4: Acid Sulfate Soils (2014);
- DECC Waste Avoidance and Resource Recovery Strategy 2007;
- NOHSC Code of Practice for the Safe Removal of Asbestos 2nd Edition;
- NOHSC Code of Practice for the Management and Control of Asbestos in Workplaces;
- Transport for NSW Waste Reduction and Purchasing Policy;
- Delta Sydney Metro West Spoil Management Sub Plan;
- Delta IMS Procedure 01 Asbestos Management and Removal;
- Delta IMS Procedure 29 Recycle Process Management;
- Delta IMS Procedure 38 Waste Management;
- Delta IMS SWMS Demolition with Asbestos Contractors or Materials;
- Delta IMS SWMS Removal of Asbestos Conduit;
- Delta IMS SWMS Removal and Disposal of Asbestos Waterproof Membrane in Concrete Rubble;
- Delta IMS SEF 025 Register - Asbestos Control Register; and
- Delta IMS QF 029 Material Disposal Running Sheet.

### 4.3 Minister's Conditions of Approval

Delta notes that the Project must be carried out in accordance with the Minister's Conditions of Approval (MCoAs) and generally in accordance with the:

- Sydney Metro West – Westmead to The Bays and Sydney CBD Environmental Impact Statement dated 15 April 2020;
- Sydney Metro West – Westmead to The Bays and Sydney CBD Submissions Report dated 20 November 2020; and
- Sydney Metro West – Westmead to The Bays and Sydney CBD Amendment Report dated 20 November 2020.; and
- Sydney Metro West – Westmead to The Bays and Sydney CBD Modification Request Letter dated 21 June 2021. description provided in the EIS as amended by the PIR and the Conditions of Approval (CoA).

The relevant CoAs addressed by this WMSP are summarised in **Table 1** below.

**Table 1 Relevant Conditions of Approval**

CoA	Relevant requirement	Where addressed
D111	<p>Waste generated during construction and operation must be dealt with in accordance with the following priorities:</p> <p>(a) waste generation must be avoided and where avoidance is not reasonably practicable, waste generation must be reduced;</p> <p>(b) where avoiding or reducing waste is not possible, waste must be re-used, recycled, or recovered; and</p> <p>(c) where re-using, recycling or recovering waste is not possible, waste must be treated or disposed of.</p>	Section 5.3 Demolition Waste Generation

CoA	Relevant requirement	Where addressed
D112	The importation of waste and the storage, treatment, processing, reprocessing or disposal of such waste must comply with the conditions of the current EPL for Stage 1 of the CSSI, or be done in accordance with a Resource Recovery Exemption or Order issued under the Protection of the Environment Operations (Waste) Regulation 2014, as the case may be.	Section 5.3 Demolition Waste Generation
D113	Waste must only be exported to a site licensed by the EPA for the storage, treatment, processing, reprocessing or disposal of the subject waste, or in accordance with a Resource Recovery Exemption or Order issued under the Protection of the Environment Operations (Waste) Regulation 2014, or to any other place that can lawfully accept such waste.	Section 5.3 Demolition Waste Generation
D114	All waste must be classified in accordance with the EPA's Waste Classification Guidelines, with appropriate records and disposal dockets retained for audit purposes.	Section 5.3 Demolition Waste Generation

#### 4.4 Sydney Metro Requirements

Sydney Metro Requirements for waste are provided within the Construction Environmental Management Framework (CEMF). The relevant CEMF requirements addressed by this WMSP are outlined in **Table 2** below.

**Table 2 Relevant Sydney Metro Requirements**

CEMF	Relevant requirement	Where addressed
14.2 (a)	Principal Contractors will develop and implement a Waste Management Plan which will include as a minimum:	This Plan
	i. The waste management mitigation measures as detailed in the environmental approval documentation;	Section 4.5 and Table 10
	ii. The responsibilities of key project personnel with respect to the implementation of the plan;	Section 5
	iii. Waste management monitoring requirements;	Section 7
	iv. A procedure for the assessment, classification, management and disposal of waste in accordance with Waste Classification Guidelines; and	Sections 6.1 and 6.2
	v. Compliance record generation and management.	Sections 6.9 and 7
14.2 (b)	Principal Contractors will undertake the following waste monitoring as a minimum:	
	i. Weekly inspections will include checking on the waste storage facilities on site; and	Section 7.2
	ii. All waste removed from the site will be appropriately tracked from 'cradle to grave' using waste tracking dockets.	Section 6.7
14.2 (c)	Principal Contractors will report all necessary waste and purchasing information to Sydney Metro as required for Sydney Metro to fulfil their WRAPP reporting requirements.	Section 8.1
14.2 (d)	Compliance records will be retained by the Principal Contractors in relation to waste management including records of inspections and waste dockets for all waste removed from the site.	Sections 6.7 and 6.9

## 4.5 Revised Environmental Mitigation Measures (REMMs)

**Table 3 Relevant Waste Management REMMs**

REMM	Relevant requirement	Where addressed
WR1	All waste would be assessed, classified, managed, transported and disposed of in accordance with the Waste Classification Guidelines and the Protection of the Environment Operations (Waste) Regulation 2014.	Sections 6 Section 6.10 - WR01
WR2	A hazardous material survey would be completed for those buildings and structures suspected of containing hazardous or special waste materials (particularly asbestos) prior to their demolition. If hazardous waste or special waste (e.g. asbestos) is encountered, it would be handled and managed in accordance with relevant legislation, codes of practice and Australian standards.	Section 6.1 Section 6.10 - WR02
WR3	Construction waste would be minimised by accurately calculating materials brought to the site and limiting materials packaging.	Section 6.3 Section 6.10 - WR03
WR4	Waste streams would be segregated to avoid cross-contamination of materials and maximise reuse and recycling opportunities.	Sections 3.5, 6.4 and 6.10 - WR04
WR5	A materials tracking system would be implemented for material transferred between Sydney Metro West sites and to offsite locations such as licensed waste management facilities.	Section 6.7 Section 6.10 - WR05

## 5 ROLES AND RESPONSIBILITIES

Table 4 provides the key roles and responsibilities for waste management under the WMSP. A complete list of roles and responsibilities, including interfaces between the various roles, is provided in the Construction Environmental Management Plan.

**Table 4 Key Roles and Responsibilities**

Project Role	Responsibilities
<b>Project Director</b>	<ul style="list-style-type: none"> <li>Engaged full-time across each and all Packages and Portions throughout Delta's Activities to ensure that Delta meets all Contract obligations.</li> <li>Primary contact with the Principal's Representative on all aspects of the Project.</li> <li>Approve and ensure implementation of this WMSP.</li> <li>Approve monthly reports and issue to the Principal.</li> </ul>
<b>Project Manager</b>	<ul style="list-style-type: none"> <li>Implement the WMSP.</li> <li>Organise on-site personnel with regard to their responsibilities within the WMSP.</li> <li>Carry out periodic audits of waste management processes.</li> <li>Manage non-conformances and initiate corrective action as required.</li> <li>Lead by example and promote sustainable waste management practices.</li> <li>Review reports, and follow up on recommendations.</li> </ul>
<b>Demolition Site Manager</b>	<ul style="list-style-type: none"> <li>Implement the WMSP.</li> <li>Provide advice and assistance on the WMSP to employees.</li> <li>Decide when training is required.</li> <li>Undertaking inspection of the contracted or planned works to ensure that WMSP measures are implemented and effective.</li> <li>Lead by example and promote sustainable waste management practices.</li> <li>Carry out weekly toolbox talks.</li> <li>Manage the Site Folder and ensure all WMSP requirements are compiled.</li> </ul>
<b>Environment and Sustainability Manager</b>	<ul style="list-style-type: none"> <li>Maintain the WMSP.</li> <li>Ensure relevant information from the WMSP is incorporated into project inductions.</li> <li>Prepare monthly reports and submit to the Project Director.</li> <li>Identify waste management opportunities and support those identified by others.</li> <li>Communicate the requirements of the WMSP and ensure these are addressed.</li> <li>Ensure subcontractor documentation captures the requirements of the WMSP.</li> <li>Conduct audits and inspections of the site.</li> <li>Participate in Principal-led site audits.</li> <li>Update the WMSP as required.</li> </ul>

Project Role	Responsibilities
	<ul style="list-style-type: none"> <li>• Attend toolbox meetings and inductions.</li> <li>• Ensure that waste management defects are identified, actioned and closed out.</li> <li>• Lead by example and promote sustainable waste management practices.</li> <li>• Attend on-site meetings to ensure sustainability is raised for review.</li> </ul>

## 6 IMPLEMENTATION

### 6.1 Waste Classification

Where waste cannot be avoided, reused or recycled it will be classified and then disposed of to an appropriately licensed facility. The classification of waste will be undertaken by Delta in accordance with the NSW EPA Waste Classification Guidelines (2014), the Sydney Metro Waste Classification Procedure (SM-20-00040677) (found in **Appendix B**) and the Sydney Metro Disposal Flowchart (Lead Paint Decision Flowchart v0.6), which is found in **Appendix C**. The Sydney Metro Waste Classification Procedure has been prepared in accordance with the NSW EPA Waste Classification Guidelines (2014).

A large proportion of the waste to be generated is pre-classified under the NSW EPA Waste Classification Guidelines (2014). Where the material does not meet the pre-classification it will be classified in accordance with the NSW EPA Waste Classification Guidelines (2014).

A hazardous material survey would be completed for those buildings and structures suspected of containing hazardous or special waste materials (particularly asbestos) prior to their demolition. If hazardous waste or special waste (e.g., asbestos) is encountered, it would be handled and managed in accordance Delta’s hazardous materials management procedures which have been prepared in accordance with relevant legislation, codes of practice and Australian standards.

Where waste containing lead paint has been identified during the hazardous material survey, it will be classified in accordance with the Sydney Metro Disposal Flowchart (Lead Paint Decision Flowchart v0.6), which is found in **Appendix C**. This flowchart has been prepared in accordance with Step 5 of the NSW EPA Waste Classification Guidelines.

Potential Acid Sulfate Soils will be classified in accordance with the NSW EPA Waste Classification Guidelines Part 4: Acid Sulfate Soils (2014).

The NSW EPA waste guideline identifies six classes of waste: Special, Liquid, Hazardous, Restricted Solid, General Solid (putrescible), and General Solid (non-putrescible). The process for classifying waste is as follows:

#### 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.

Note: The transportation and management of asbestos waste must be managed in accordance with Part 7 of the Waste Regulation and special requirements pertaining to clinical and related waste are stipulated in Clause 113 of the 2014 Waste Regulation.

#### 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 2014 Waste Regulation, 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.

#### 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 of each chemical contaminant, and where required the leachable concentration using the Toxicity Characteristics Leaching Procedure, against Contaminant Thresholds.

**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).

## 6.2 Resource Recovery Orders and Exemptions

The NSW EPA has issued a number of resource recovery orders and exemptions that are applicable to the Project (refer to **Table 5**). Orders apply to the generators and processors of the relevant waste resource, while exemptions apply to consumers. Orders and exemptions include a number of conditions that must be met to satisfy the order or exemption as well as specifications, requirements on how to re-use or apply the waste, and requirements for record keeping, reporting, and other requirements.

**Table 5 Relevant Resource Recovery Orders and Exemptions**

Order / Exemption	Summary of Conditions
Cement fibre board	<ul style="list-style-type: none"> <li>The chemical concentration or other attributes of the cement fibre board material listed in the order must not be exceeded.</li> <li>Cement fibre board can only be applied to land when incorporated within road making material or used as an alternative input into thermal processes for non-energy recovery purposes in the manufacture of building products.</li> <li>Handling, processing, sampling and testing requirements are outlined in detail in the order.</li> </ul>
Recovered Plasterboard	<ul style="list-style-type: none"> <li>The chemical concentration or other attributes of the recovered plasterboard material listed in the order must not be exceeded.</li> <li>Recovered plasterboard can only be applied to land as a soil amendment. Prior to application to land the soil to which the material will be applied must be characterised to determine appropriate application rates. The recovered plasterboard must be incorporated into the topsoil.</li> <li>Handling, processing, sampling and testing requirements are outlined in detail in the order.</li> </ul>
Recovered aggregate	<ul style="list-style-type: none"> <li>The chemical concentration or other attribute of the recovered aggregate listed in the order must be met.</li> <li>The recovered aggregate can only be applied to land for road making activities, building, landscaping, and construction works.</li> </ul>

## 6.3 Demolition Waste Generation

Delta expects that the following indicative waste streams will be generated during the demolition phase of the Project:

- Demolition products, including concrete, masonry, and steel;
- Demolition wastes, including plasterboard, floor coverings, timber, and any other items for which there is no reasonable and feasible market;
- Hazardous wastes, such as asbestos;
- Salvageable wastes, including office furnishings;
- Site office wastes, including food waste, packaging, paper, printer cartridges etc.;
- Plant maintenance wastes;
- Human waste from site amenities; and
- Sanitary wastes from the First Aid office.

These indicative waste streams are classified in **Table 6** below, along with the proposed reuse, recycling or disposal strategy for each. All waste generated throughout the Project will be classified in accordance with Section 5.1. **Table 7** provides a summary of the estimated volumes of the big ticket waste items per site. Estimated quantities of spoil are detailed in the Spoil Management Sub Plan.

Delta will minimise the amount of material brought to the site that will generate waste, by accurately calculating materials, ordering only what is necessary to carry out the task, and limiting materials packaging that is brought to site.

Hoarding, site fencing, and other temporary features will be reused or shared between sites where feasible and reasonable to reduce the use of raw materials. Hoarding and site fencing will be hired, and returned to the rental contractor following the cessation of works at each site.

**Table 6 Indicative Waste Streams and Proposed Reuse**

Waste Stream	Indicative Waste Classification	Handling and Storage	Hierarchy
<b>Heritage Salvage</b>			
Parramall Sign	-	To be salvage. Removal process and method to be verified on site inspection. Refer to Heritage Management Plan.	Reuse as per Sydney Metro requirements
<b>Demolition</b>			
Concrete, masonry	General solid waste (non-putrescible)	Segregated, crushed, and stockpiled on site	Reuse/reprocess off-site at a licensed facility
Steel	General solid waste (non-putrescible)	Segregated on site to steel bins	Recycle off-site at a licensed facility
Plasterboard	General solid waste (non-putrescible)	Stored on-site in the general waste skip bin	Dispose off-site at a licensed facility
Timber	General solid waste (non-putrescible)	Stored on-site in the general waste skip bin	Dispose off-site at a licensed facility
Floor and wall coverings	General solid waste (non-putrescible)	Stored on-site in the general waste skip bin	Dispose off-site at a licensed facility
Furnishings and fit-outs, including office furniture and fit-outs, kitchen furnishings and equipment, and bedroom furnishings.	General solid waste (non-putrescible)	Salvaged by an approved subcontractor	Reuse at an off-site facility or Dispose off-site at a licensed facility
Asbestos	Special waste	Place into a covered and contained bin Manage in accordance with Asbestos Control Plan, SWMS, SafeWork NSW licensing, etc.	Dispose off-site at a licensed facility
Waste containing lead paint	Potentially hazardous waste (subject to waste classification)	Place into a covered and contained bin Manage in accordance with removal plan, SWMS, and SafeWork NSW notification (if required), etc.	Dispose off-site at a licensed facility
Hazardous waste	Hazardous waste	Place into a covered and contained bin Separated from incompatible substances	Dispose off-site at a licensed facility
<b>Maintenance</b>			
Filters, rags, grease canisters	General solid waste (non-putrescible)	Stored on-site in the general waste skip bin	Avoid materials packaging Dispose off-site at a licensed facility
Hoses	General solid waste (non-putrescible)	Stored on-site in the general waste skip bin	Dispose off-site at a licensed facility
<b>Vegetation clearing</b>			
Trees/vegetation	General solid waste	Mulched onsite where practical	Reuse of mulch onsite.

Waste Stream	Indicative Waste Classification	Handling and Storage	Hierarchy
	(non-putrescible)		Reuse mulch or tree hollows at approved location (e.g., local school or council nominated area) Dispose off-site at a licensed facility
Weeds	General solid waste (non-putrescible)	Segregated from non-weed vegetation waste where practical.	Dispose off-site at a licensed facility
<b>Site Office and Amenities</b>			
Food waste	General solid waste (putrescible)	Placed into the general waste bin in the site office	Dispose off-site at a licensed facility
Paper and cardboard	General solid waste (non-putrescible)	Placed into the paper and cardboard bin in the site office	Avoid materials packaging Recycle at an off-site facility
Plastics, glass, cans	General solid waste (non-putrescible)	Placed into the co-mingled bin in the site office	Recycle at an off-site facility
Printer cartridges	General solid waste (non-putrescible)	Placed into the printer cartridge bin in the site office	Purchase only what is necessary Avoid materials packaging Recycle at an off-site facility
Human waste	Liquid waste	Enclosed within the waste tanks of the portable site amenities building Collected by contractor's vacuum truck	Dispose off-site at a Sydney Water licensed sewage treatment system
Sanitary waste	General solid waste (putrescible)	Placed into the sanitary waste bin in the First Aid office	Dispose off-site at a licensed facility
<b>Spoil</b>			
Excess spoil	To be confirmed	Refer to the Spoil Management Sub Plan	

**Table 7 Estimated Amounts of Materials per Site**

Work Portion	Estimated Brick (T)	Estimated Concrete (T)	Estimated Steel (T)	Estimated Residual* (T)
Parramatta Site	7,000	11,000	35	1,200
Clyde Site	6,000	7,000	820	300
Westmead Site	3,500	4,300	5	400
<b>TOTAL</b>	<b>16,500</b>	<b>22,300</b>	<b>860</b>	<b>1,900</b>

\* Residual includes recyclable materials such as office furnishings as well as materials that will be disposed of to landfill.

## 6.4 Spoil Generation

Delta's package of work includes relatively small sections of excavation associated with services diversion, and Phase C2 excavation of archaeological clearance activities. The estimated amounts of spoil generation during Phase C2 works are provided in Table 8 below.

Where possible, the excavated material will be re-used to backfill the trench or excavation, or retained onsite for future use by the project. Where the material cannot be re-used, it will be classified in accordance with the NSW EPA Waste Classification Guidelines (2014) as outlined in Section 5.1. In addition, where spoil cannot be reused onsite it will be assessed using the waste classification data to determine if it can be disposed of to a licensed facility that can lawfully accept CT1 Soils (also known as GSW Recyclable/GSWr).

**Table 8 Estimated Amounts of Materials per Site**

Site	Estimated Spoil (T)	Estimated for Disposal (T)	Estimated for Onsite Reuse* (T)
Parramatta	20,000	20,000	
Clyde	7,000		7,000
<b>TOTAL</b>	<b>27,000</b>	<b>20,000</b>	<b>7,000</b>

\* Subject to meeting reuse criteria as detailed in Section 6.3 of the Spoil Management Sub Plan.

Further spoil management details are outlined in the Spoil Management Sub Plan.

## 6.5

### 6.5 On-site Handling and Storage

Where wastes generated by the Project are required to be handled and stored on-site prior off-site reuse, recycling, or disposal. The following control measures will be applied:

- Concrete and masonry;
  - Stockpiled on-site in allocated areas; and
  - Dust controls and surface water measures will be implemented;
- Liquid wastes;
  - Stored in appropriate bunded containers until transported off-site; and
- Hazardous wastes;
  - Managed by appropriately licensed contractors.

### 6.6 Waste Disposal and Diversion

#### 6.6.1 Waste Disposal

Delta carries out its waste management activities in accordance with its Environment Policy and the waste minimisation hierarchy. Delta will always seek to reuse, recycle, or reprocess demolition wastes that it generates, or to deliver the wastes to an appropriately licensed third party that will reuse, recycle, or reprocess those wastes, rather than dispose of them to landfill.

Waste disposal will be in accordance with the *Protection of the Environment Operations Act 1997*, *Protection of the Environment Operations (Waste) Regulation 2014*, and *Waste Avoidance and Resource Recovery Act 2001*. Wastes that are unable to be reused, recycled, or reprocessed will be disposed of to a licensed waste management facility following classification. An indicative list of proposed facilities for spoil offsite disposal/reuse are summarised in Table 9 of the Spoil Management Sub Plan (noting that they are subject to change based on availability throughout the project).

Lead paint waste will be disposed of in accordance with the Sydney Metro Disposal Flowchart (Lead Paint Decision Flowchart v0.6), which is found in **Appendix C**.

#### 6.6.2 Waste Diversion Targets

Based on the indicative figures in **Table 7**, Delta expects that the proportion of materials diverted from landfill to meet Sydney Metro's diversion target that at least 95% of inert and non-hazardous construction waste by weight, excluding spoil, and at least 60% of office waste is recycled or alternatively beneficially reused.

For work related to the removal of equipment, fittings and fit out materials from buildings, Delta will salvage, reuse, and recycle equipment, fittings and materials to the maximum extent practicable, and provide a report to the Principal's Representative on how this has been accomplished. Delta defines salvageable as materials worth rescuing and keeping for reuse or resale rather than discarding.

In addition to this overall target, Delta's diversion targets for segregated materials are:

- Reusable spoil: 100% (where applicable);
- Recyclable glass, metals, plastics: 100%;
- Paper and cardboard: 100%;
- Printer cartridges: 100%;
- Salvageable office furnishings: 100%;
- Concrete: 100%;
- Masonry: 100%; and
- Steel: 100%.

Where vegetation has been cleared and mulched, Delta will reuse the mulch (excluding invasive weed species) onsite. Where it cannot be reused onsite, Delta will investigate opportunities to reuse the mulch material at an approved location such as local schools or local council. Where practical, Delta will also investigate options for placing removed tree hollows into natural areas nominated and approved by the relevant local council.

### 6.7 Waste Tracking

Compliance with the *Protection of the Environment Operations Act 1997*, *Protection of the Environment Operations (Waste) Regulation 2014* and *Waste Avoidance and Resource Recovery Act 2001* will be demonstrated by Delta's records of waste generation and management. A summary of the waste tracking process from cradle to grave is outlined in **Table 9**.

Waste types, dispatch details, including trucking company name and vehicle registration, and arrival and departure times for each load will be recorded in QF 029 Material Disposal Running Sheet (see Appendix A) and in accordance

with Delta’s IMS Procedure 38 Waste Management. At the end of each day, a summary of loads by material type and trucking company will also be recorded on QF 029.

QF 029 provides a Hold Point for each demolition material load. No vehicle may leave the Project site until approved by the Gate Attendant. The Gate Attendant may not allow a vehicle to leave until s/he has completed the required sections of QF 029 for that load.

All Trackable Waste (per Schedule 1 of the Protection of the Environment (Waste) Regulation 2014) would be tracked per NSW EPA requirements, with records kept and provided to the Principal on a monthly basis. Special Waste will be tracked using the NSW EPA WasteLocate system.

The tracking information from QF 029 will collated using Delta’s QuickTrans system. The system will be used to correlate trucking information and disposal receipts to form a complete cradle to grave record of generation, transport, and disposal. All waste tracking records will be provided to the Principal on a monthly basis.

**Table 9 Summary of Waste Tracking Cradle to Grave**

Step	Action	When	Responsibility	Record
1	Ensure waste material has been appropriately classified.	Prior to removal from site	Project Manager	Pre-classified waste noted in QF 029 (see Appendix A) Other waste – standalone waste classification report
2	Verify receiving facility is appropriately licence for the given waste classification	Prior to removal from site	Project Manager and/or Engineer	EPL Register
3	Segregate waste onsite into discrete waste classifications	During works	Site Manager	Safety and Environmental Form SEF 047 Site Diary
4	Prepare appropriate load tracking forms for the given waste classification	As required	Project Manager and/or Engineer Transport Allocator	NSW EPA WasteLocate or consignment/transport certificate
5	Load trucks based on single waste classification and leave site via gatehouse	As required	Site Manager Gate Attendant	QF 029 (see Appendix A)
6	Completed daily QF 029 uploaded to Delta QuickTrans system	Daily (as required)	Project Manager, Engineer and/or Site Manager	QF 029 (see Appendix A) QuickTrans
7	Tipping dockets collected and uploaded into the Delta QuickTrans system	Weekly	Transport Division	QuickTrans
8	Waste Tracking data collated and submitted to the Principal on a monthly basis	Monthly	Project Manager and/or Engineer	Delta Weekly Dashboard Sydney Metro Sustainability Reporting Template (SM-18-00043350)

## 6.8 Training

All Delta personnel and subcontractors working on a Delta Project site will undergo site induction training, which includes an overview of waste management and recycling requirements.

Records will be kept of all personnel that have undertaken the site induction, including the nature of the training, the time and date of the training, and the name of the trainer/s.

Toolbox training will be provided weekly, in accordance with Delta's IMS, and will address waste management when the need arises, such as where existing procedures are not followed, new procedures are to be introduced, or where new hazards or opportunities are identified.

## 6.9 Record Keeping

Delta will retain compliance records in relation to waste management including records of inspections and waste docket for all waste removed from the site. Records will be made available in a timely manner to the Principal (or their representative) as required in the Contract.

Delta will meet the Principal's reporting requirements by maintaining appropriate records of:

- Site inspections, audits, monitoring, reviews or remedial actions;
- Documentation as required by performance conditions, approvals, licences, and legislation;
- Modifications to site environmental documentation; and
- Other records as required by the WMSP.

Records will be retained by Delta for the duration of works, and thereafter for a period of at least seven (7) years following completion of the Project.

## 6.10 Site Control Measures

Site specific controls, monitoring, reporting and performance measurements have been identified in this waste management plan to minimise and, where possible, prevent waste management resulting from construction causing impacts on the environment and community. These "Mitigation Measures" are described in **Table 10** below.

**Table 10 Mitigation Measures, reporting and reactive management strategy**

Ref.	Mitigation Measure	Works					Site			Responsibility	Monitoring and Reporting	Targets	Reactive Mgt. Strategy
		Low Impact works & Site Set-up	Internal Strip-out	Hardstand Demolition	Demobilisation	Phase C2	Parramatta	Clyde	Westmead				
WR01	All waste would be assessed, classified, managed, transported and disposed of in accordance with the Waste Classification Guidelines.	✓	✓	✓	✓	✓	✓	✓	✓	Site Manager, Sub-contractors, Gate Attendant	QF 029 Material Disposal Running Sheet WasteLocate (Asbestos) Transport certificates (hazardous materials) Waste dockets Monthly waste reports	At least 95% of inert and non- hazardous construction waste by weight, excluding spoil, and at least 60% of office waste is recycled or alternatively beneficially reused.	Review waste management procedures.
WR02	A hazardous material survey would be completed for those buildings and structures suspected of containing hazardous or special waste materials (particularly asbestos) prior to their demolition. If hazardous waste or special waste (e.g. asbestos) is encountered, it would be handled and managed in accordance with relevant legislation, codes of practice and Australian standards.	✓	✓	✓			✓	✓	✓	Site Manager, Sub-contractors	HAZMAT survey prior to demolition. QF 029 Material Disposal Running Sheet WasteLocate (Asbestos)	HAZMAT survey prior to demolition All waste appropriately classified Full compliance with removal, disposal and tracking requirements	Review waste management procedures.
WR03	Construction waste would be minimised by accurately calculating materials brought to the site and limiting materials packaging.	✓	✓	✓			✓	✓	✓	Site Manager, Sub-contractors	Waste classification Waste audits Daily site sheets	See Section 6.6.2	Review waste management procedures.
WR04	Waste streams would be segregated to avoid cross-contamination of materials and	✓	✓	✓		✓	✓	✓	✓	Site Manager, Sub-contractors	Waste classification Waste audits	At least 95% of inert and non- hazardous construction waste by	Review waste management procedures.



Ref.	Mitigation Measure	Works					Site			Responsibility	Monitoring and Reporting	Targets	Reactive Mgt. Strategy
		Low Impact works & Site Set-up	Internal Strip-out	Hardstand Demolition	Demobilisation	Phase C2	Parramatta	Clyde	Westmead				
	maximise reuse and recycling opportunities										Daily site sheets	weight, excluding spoil, and at least 60% of office waste is recycled or alternatively beneficially reused.	
WR05	A materials tracking system would be implemented for material transferred between Sydney Metro West sites and to offsite locations such as licensed waste management facilities	✓	✓	✓		✓	✓	✓	✓	Site Manager, Sub-contractors, Licensed disposal facility, Gate Attendant, Environment and Sustainability Manager	WasteLocate system for Asbestos Transport certificates (hazardous materials) Waste docket QF 029 Material Disposal Running Sheet	All material removed from site appropriately tracked.	Review waste management procedures.
WR06	Delta's management plans, systems, and processes will be subject to audit and surveillance by the Principal to gain assurance that Delta has established effective management systems and processes to meet the requirements of the Contract.	✓	✓	✓		✓	✓	✓	✓	Environment and Sustainability Manager	See Section 6 below.	No waste management related non-conformances.	Review and implement agreed improvements.

## 7 MONITORING AND INSPECTIONS

### 7.1 Waste Monitoring

All Trackable Waste (per Schedule 1 of the Protection of the Environment (Waste) Regulation 2014) would be tracked per NSW EPA requirements, with records kept and provided to the Principal on a monthly basis. Special Waste will be tracked using the NSW EPA WasteLocate system.

All materials dispatched from site will be tracked from site to final destination. A record of trucks, their destination, and the materials they are carrying will be maintained on site using IMS QF 029 Material Disposal Running Sheet. Delta's internal Transport Group will then correlate the running sheet with tipping dockets and receipts from the recycling facility or landfill destination.

The Delta Transport Group will review waste tracking documentation to ensure that that the running sheet correlates with disposal receipts. Where there is a discrepancy, the Delta Transport Group will investigate by contacting firstly the disposal location to review their records, and then the trucking company.

The Project Manager will review waste tracking documentation to ensure that the Gate Attendant is completing his or her responsibilities under this WMSP, that waste and recyclable materials are being dispatched to licensed facilities, and that materials that can be reused, recycled, or reprocessed are not being disposed of to landfill.

The diversion target of at least 95% of inert and non- hazardous construction waste by weight, excluding spoil, and at least 60% of office waste is recycled or alternatively beneficially reused will be measured by dividing the tonnage of materials taken for reprocessing, recycling, or reuse by the total tonnage of materials removed from the demolition site.

### 7.2 Waste Inspections

Delta will carry out surveillance of environmental measures, including waste management measures, in accordance with Delta IMS Procedure 24 Inspection, Monitoring and Measurement. Daily Pre-Starts will be carried out by the Site Manager and recorded on Safety and Environmental Form SEF 047 Site Diary - Daily Pre-Start.

Regular site inspections will be carried out by the Site Manager and recorded on SEF 049 Site Inspection Report. Site inspections cover the whole of the works, including the site perimeter, and include checking on the waste storage facilities on site as well as assessing progress, risk and opportunities, and quality, safety, and environmental aspects of the Project.

Periodic inspections by Delta's Environmental and Sustainability Manager (or delegate) will be carried out to verify the adequacy of all environmental measures. This will be documented in SEF 049 Site Inspection Report.

A timetable of site inspections is provided in Table 11 below.

**Table 11 Site Inspection Timetable**

Inspection	Frequency	Content
Daily Pre-start	Daily	Safety, environment, quality
Site Inspection	Weekly	Safety, environment
Environmental Inspection	Weekly	Environment

### 7.3 Waste Audits

Delta carries out routine safety, environmental, and quality audits of all of its projects. Waste management will be incorporated into these in accordance with Delta's IMS Procedure AUD 005 Audit Environmental and as a component of this WMSP.

The Environment and Sustainability Manager will review waste tracking documentation to ensure that materials that can be reused, recycled, or reprocessed are not being disposed of to landfill so as to maintain or correct Delta's overall waste diversion target of at least 95% of inert and non- hazardous construction waste by weight, excluding spoil, and at least 60% of office waste is recycled or alternatively beneficially reused.

Where Delta performs compliance audits of its systems and procedures, the Principal will be invited to participate in the audit planning and oversee conduct of the audit. Delta will later provide a copy of the audit report to the Principal.

Where sub-contractors are employed to deliver aspects of the Project, Delta will require that its audit and surveillance requirements be maintained by the sub-contractor, and that the evidence be provided that the sub-contractor's activities are being effectively overseen. If requested by the Principal, Delta will provide evidence of the effective implementation of management systems and procedures by its sub-contractors.

Delta’s management plans, systems, and processes will be subject to audit and surveillance by the Principal to gain assurance that Delta has established effective management systems and processes to meet the requirements of the Contract. The Principal may utilise its own auditors and surveillance officers to perform these activities, supported by subject matter experts where relevant.

Delta will be cooperative in assisting the Principal’s auditors and surveillance officers in undertaking their duties. This will include providing safe access to sites, systems and documentation, providing facilities to perform audits and surveillance, and the participation of Delta and Subcontractor representatives as required.

A timetable of site audits is provided in Table 12.

**Table 12 Site Audit Timetable**

Inspection	Frequency	Content
Internal HSEQ Audit	Monthly	Safety, environment (including waste), quality
Internal Project Audit	Monthly	Project objectives Project specific management plans and procedures (including WMSP)
Principal’s Audit	TBC	Project management plans, systems, and processes

## 8 REPORTING

### 8.1 Monthly Report

Delta will prepare and submit a Monthly Report which meets Sydney Metro Requirements Project Administration – Demolition (SMR PA) Section 7. The Monthly Report will be submitted to the Principal’s Representative for review in accordance with the Contract.

Delta will also provide a Monthly Sustainability Report to the Principal’s Representative using the Sydney Metro Sustainability Reporting Template (SM-18-00043350). The data captured within the sustainability reporting template will allow the Principal to fulfil the Waste Reporting and Purchasing Policy (WRAPP) reporting requirements. The form requires information to be tracked including types and quantities of waste generated, reused or recycled, and waste disposed to landfill.

The following information will be reported in SM-18-00043350:

- Types and quantities of waste generated;
- Types and quantities of waste reused or recycled;
- Types and quantities of waste disposed to landfill; and
- Types and quantities of materials salvaged for reuse.

## APPENDIX A QF 029 MATERIAL DISPOSAL RUNNING SHEET

# Material Disposal Running Sheet

<b>DAY (Circle)</b>	M	T	W	T	F	S	S
<b>GATE:</b>							
<b>GATE ATTENDANT:</b>							

**DATE:**  /  /

**SITE:**

**WEATHER:**  Dry  Wet

**COMMENTS:**

	TRUCK TYPE	TRUCK REGO	TRUCK COMPANY							MATERIAL (tick)										TIME ARRIVING and LEAVING SITE (hh: mm) on each load															
										VENM	ENM	GSWr	GSW	Asbestos	Brick	Concrete	Steel	Demo Waste			1		2		3		4		5						
																					Time In	Time Out	Time In	Time Out	Time In	Time Out	Time In	Time Out	Time In	Time Out					
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>															
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>															
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>															
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>															
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>															
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>															
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Days Summary:

Company	Material type	Total Loads

Company	Material type	Total Loads

## APPENDIX B SYDNEY METRO WASTE CLASSIFICATION PROCEDURE (SM-20-00040677)



# Waste Classification Procedure

SM-20-00040677

Sydney Metro Integrated Management System (IMS)

<b>Applicable to:</b>	Sydney Metro
<b>Document Owner:</b>	Associate Director Environment, Operations, Customer & Place-Making
<b>System Owner:</b>	Director Environment, Sustainability & Planning
<b>Status:</b>	Final
<b>Version:</b>	3.0
<b>Date of issue:</b>	June 2020
<b>Review date:</b>	June 2021

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# 1. Introduction

## 1.1. Purpose and scope

This framework describes the approach to classifying spoil and demolition materials generated during works in accordance with environmental legislation and guidelines.

This framework considers the reuse of materials on site, the beneficial reuse of materials transported off site as waste (for example as virgin excavated natural material [VENM]), the recycling of materials at offsite facilities, and the offsite disposal of materials when reuse/recycling is not achievable.

The framework considers only the compliance and classification elements of the spoil management process and does not consider all of the practical issues associated with construction, geotechnical properties of the spoil or market forces and costs that influence the reuse potential of spoil or other wastes.

Section 1.6 of this framework outlines an Unexpected Find Protocol (UFP) to be implemented should unexpected potential contamination be found during works.

## 1.2. Definitions

All terminology in this Procedure is taken to mean the generally accepted or dictionary definition. Other terms and jargon specific to this Procedure are defined within the [SM-17-0000203 Sydney Metro glossary](#). Acronyms specific to this document are listed below.

	Definitions
<b>2014 Waste Regulation</b>	<i>Protection of the Environment Operations (Waste) Regulation 2014.</i>
<b>CLM Act</b>	<i>Contaminated Land Management Act 1997.</i>
<b>Contamination</b>	<i>As defined in the CLM Act “means the presence in, on or under the land of a substance at a concentration above the concentration at which the substance is normally present...in the same locality...that presents a risk of harm to human health or any other aspect of the environment.”</i>
<b>Demolition materials</b>	Materials such as concrete, bricks and timber resulting from the demolition of buildings and structures. Most demolition materials are pre-classified as General Solid Waste (non-putrescible) (see definition below) under the NSW EPA (2014) <i>Waste Classification Guidelines</i> . However, some demolition materials such as asbestos have other classifications as described below.
<b>EIS</b>	Environmental Impact Statement for the project, which assesses potential environmental impacts and mitigation measures in accordance with the EP&A Act (see below)
<b>ENM</b>	Excavated Natural Material as defined in <i>The excavated natural material order 2014</i> , being excavated material that is at least 98% (by weight) natural material that does not meet the definition of VENM (see below).
<b>EPA</b>	NSW Environment Protection Authority.
<b>EP&amp;A Act</b>	<i>Environmental Planning &amp; Assessment Act 1979.</i>
<b>EPL</b>	Environment Protection Licence, as may be held by an owner or operator of a premise licensed to receive, process, recover or store waste. The EPL will contain a number of conditions that must be met by the holder. These will specify the type(s) of waste the facility is permitted to receive, process, recover or store, and include pollution prevention or monitoring requirements.

	Definitions
<b>Fill</b>	Soil and any associated extraneous materials (such as demolition wastes, industrial by-products and refuse) imported to and placed at the location.
<b>GSW</b>	General Solid Waste, classified in accordance with the NSW EPA (2014) <i>Waste Classification Guidelines</i> . GSW may be classified as putrescible or non-putrescible depending on the content of putrescible organic material. Spoil and demolition materials are typically non-putrescible.
<b>HW</b>	Hazardous Waste, classified in accordance with the NSW EPA (2014) <i>Waste Classification Guidelines</i> . HW must be treated prior to disposal to landfill. HW is typically spoil that is contaminated with chemicals at concentrations that exceed all screening criteria specified in Step 5 of the <i>Waste Classification Guidelines</i> .
<b>Naturally Occurring Soil</b>	Any soil which has not been significantly disturbed by human activities.
<b>NEPM</b>	<i>National Environmental Protection (Assessment of Site Contamination) Measure 2013</i>
<b>POEO Act</b>	<i>Protection of the Environment Operations Act 1997</i> .
<b>Recycling</b>	Material that is removed from the project site (thereby becoming Waste) and is deposited at an appropriately licenced recycling facility for processing prior to reuse by others.
<b>REF</b>	Review of Environment Factors, which addresses the likely environmental impacts and details protective measures to manage against any adverse effects in accordance with the EP&A Act.
<b>Remediation</b>	As defined in the CLM Act, remediation of contaminated land includes: (a) preparing a long-term management plan (if any) for the land, and (b) removing, dispersing, destroying, reducing, mitigating or containing the contamination of the land, and (c) eliminating or reducing any hazard arising from the contamination of the land (including by preventing the entry of persons or animals on the land).” Remediation is the act of mitigating exposure to contamination in its original location. The process of remediation can generate spoil that may be subject to reuse within the project area (where that reuse is adequately controlled in order to mitigate exposure risks), or the removal of contaminated spoil for treatment and/or disposal off site.
<b>Reuse offsite</b>	Material to be reused by application to land at a location outside of the project site, without the need for processing prior to reuse. Material meeting the definition of VENM or ENM or material that is subject to an RRO and RRO, are suitable (from an environmental perspective) for reuse at remote sites where all requirements of the POEO Act and CLM Act are met.
<b>Reuse onsite</b>	Material that is excavated on the project site and reused on the project site. Material to be reused onsite is not defined as Waste and does not require classification in accordance with NSW EPA (2014) <i>Waste Classification Guidelines</i> . The material must be suitable for the final land use at the placement location in accordance with EPA guidelines made or approved under the CLM Act and must not cause pollution under the POEO Act. If transport to another part of the project area requires material to be taken outside the site boundary temporarily, this must be undertaken in accordance with the EIS or following consultation with relevant regulators.
<b>RRE</b>	Resource Recovery Exemption, contains the conditions that must be met by consumers of a waste type to allow its exempt reuse as granted by the EPA under the 2014 Waste Regulation.
<b>RRO</b>	Resource Recovery Order, contains the conditions that must be met by generators and processors of a waste type to allow its exempt reuse as granted by the EPA under the 2014 Waste Regulation.
<b>RSW</b>	Restricted Solid Waste, classified in accordance with the NSW EPA (2014) <i>Waste Classification Guidelines</i> . An example of RSW is spoil that is contaminated with chemicals above the criteria specified in Step 5 of the <i>Waste Classification Guidelines</i> .

Definitions	
<b>Special Waste</b>	As defined in the NSW EPA (2014) <i>Waste Classification Guidelines</i> , a class of waste with unique regulatory requirements. Asbestos, or any waste containing asbestos (e.g. spoil containing any fragments of asbestos cement sheeting), is Special Waste. If Special Waste is mixed with RSW or HW (e.g. spoil classified as RSW that also contains asbestos) then the waste must be managed in accordance with both classifications.
<b>Spoil</b>	Soil or rock material generated from excavation activities.
<b>UFP</b>	Unexpected Find Protocol.
<b>VENM</b>	Virgin Excavated Natural Material as defined in Schedule 1 of the POEO Act, being excavated natural material not mixed with any other waste and not from a contaminated area.
<b>WARR Act</b>	<i>Waste Avoidance and Resource Recovery Act 2001.</i>
<b>Waste</b>	Spoil or demolition material that has been taken off site, which may be classified as Special Waste, GSW, RSW or HW.

### 1.3. Spoil Management Decision Framework

Figure 1 provides a high-level flowchart for decisions regarding the fate of spoil generated on the site. As reflected in Figure 1, the preferred spoil management hierarchy for the project, listed from most preferred to least preferred is as follows:

1. Spoil is reused within the project boundary.
2. Spoil is beneficially reused at an appropriate offsite location.
3. Spoil is recycled at an offsite licenced facility.
4. Spoil is disposed to landfill.

The approach to spoil classification is further detailed in Table 1. Table 1 describes the criteria, information inputs and control measures required to be applied when reusing spoil on site, reusing spoil offsite, recycling spoil offsite or disposing of spoil.

The framework does not account for the practical, site based, engineering or financial constraints associated with the hierarchy. These must be addressed during delivery and the most appropriate efficient and sustainable method of spoil management adopted.

### 1.4. Spoil Handling and Segregation

Careful excavation, handling and segregation of spoil is critical to ensuring that materials with varying classifications are not mixed (cross-contaminated) and are not reused, recycled or disposed in a manner inconsistent with their classifications.

Appropriate segregation is also important in controlling the costs of spoil disposal to landfill, noting that the inadvertent mixing of materials with low concentrations of contaminants, with materials containing higher concentrations, typically results in a higher classification and higher disposal rate (financial) being applied to all of the materials.

The following processes are to be applied when excavating, handling and segregating all spoil (for clarity a reference to a “geological unit” includes units or different layers/types of Fill):

- Spoil from each geological unit should be classified separately, using sampling data that relates only to that unit. Classification sampling may be performed in-situ (prior to excavation) or ex-situ (following excavation);
- Spoil from each geological unit (as described in Part 4 below) should be excavated, segregated and stored separately from spoil arising from other geological units;
- Excavations should be carefully monitored for visual indications of contamination, such as stained soils, odorous soils or the presence of anthropogenic waste materials. Any spoil containing visual indicators of contamination will be excavated, segregated and stored separately from other spoil. Where unexpected contamination is identified, an appropriate unexpected finds procedure must be implemented to manage potential human health or environmental risk (refer to **Part 5**);
- Each spoil stockpile should be treated as a “batch”, with its classification data clearly identifiable, and will be handled, stored, transported and reused/recycled/disposed as a batch. Spoil stockpiles will not be managed in a “continuous” manner, with portions added, taken away or mixed over a period of time; and

Spoil should be tracked from cradle to grave to ensure a complete and accurate record of movement from the point of excavation to the final point of placement. For clarity this includes tracking of spoil movement on the site as well as off the site.

The tracking of spoil movements (whether the spoil is waste or not) must include written records of spoil excavation, handling, transport, storage and placement via a centralised tracking system. Personnel must be suitably trained in the use of the system and sufficient detail must be recorded and retained. As a minimum material types/classifications, volumes and location are tracked from the time the material is excavated until it is placed permanently (onsite or offsite). This includes accurate records of any interim handling or placement (such as stockpiling or treatment). Stockpiles onsite are to be clearly labelled at all times. Tracking information is to be kept on-site and be available on request.

## 1.5. Typical Application of the Framework

This section provides some practical guidance in implementing the spoil classification framework (further detailed in the attached **Figure 1** and **Table 1**).

An explanation of the likely classification of spoil excavated during works based on typical geological units is provided below:

- **Fill** – Fill is imported materials which have been placed on the site at some time in the past. Fill generally exists at depths ranging up to 3m below ground surface on developed areas and brownfield sites. Fill may exist to depths exceeding 20m in reclaimed lands, landfill sites, former brick pits, footings and similar. Fill cannot be classified as VENM. Fill has an increased likelihood of being contaminated (compared to natural soils) and will predominantly be classifiable for offsite disposal as GSW, Special Waste, RSW or HW. Some materials, such as road base or crushed concrete may be recoverable under generic or specific RRE/RRO arrangements.

- **Naturally Occuring Soils** – Soil which has not been significantly disturbed by human activities. Naturally occurring soils may be residual soil, sediments, aeolian or other. In the majority of cases, naturally occurring soils will be classifiable as VENM or ENM for offsite reuse. However, where overlying contamination in Fill has leached and caused contamination of underlying natural soils; where point sources of contamination are present (such as industrial facilities or fuel storage facilities); or where significant groundwater contamination has migrated into the area, offsite reuse may not be appropriate and other classifications such as GSW, RSW or HW may be applicable. Where evidence of potential contamination exists, spoil is required to be sampled and classified in accordance with NSW EPA (2014) *Waste Classification Guidelines*.
- **Rock** – Rock in-situ will, in the majority of scenarios, be classifiable as VENM or ENM unless significant contamination is present in overlying soils or significant contamination has migrated to the rock within groundwater. Where the excavation of rock involves the use of additives (for example to facilitate tunnel boring) the material would no longer be classifiable as VENM or ENM and would instead likely be classifiable as GSW. A project specific RRE/RRO would then be required to allow for offsite reuse.

The type of material (i.e. geological unit) excavated during works will provide guidance on implementing the spoil classification framework in regard to reuse opportunities:

- **Reuse Onsite** – Any of the material excavated which is Fill, a Natural Occurring Soil or Rock may be suitable for reuse on the project site. Wherever reuse onsite is to occur, the material does not require classification in accordance with the NSW EPA (2014) *Waste Classification Guidelines*. Instead the material must be validated as being suitable for the final land use at the placement location in accordance with EPA guidelines made or approved under the CLM Act and the material must not cause pollution under the POEO Act. For clarity the classifications GSW, RSW and HW have no direct relationship to the potential for reuse of materials on the project site.

**Reuse Offsite** – With the exception of Fill, it is likely that the majority of spoil will be suitable from an environmental perspective for reuse off-site. Specifically, all VENM, ENM and material to which an RRE/RRO apply, will be suitable (from a legislative and environmental perspective) for reuse at an offsite location.

## 1.6. Unexpected Finds Protocol

This section provides guidance on implementing the Unexpected Finds Protocol (UFP) which is detailed in the attached **Figure 2**. The purpose of the UFP is to provide a clear procedure in the event of an unexpected find of contamination or potential contamination. The UFP is only to be implemented following an **unexpected** find. The handling of known contamination should already be addressed in construction and environmental management plans.

Key indicators of potential contamination include (but are not limited to):

- Fibrous cement or other asbestos containing materials;
- Discolouration of soil;
- Odours from soil and/or groundwater;
- Buried drums or underground storage tanks; and



- Oily sheen on water.

Should any of the above be discovered and is considered to be unexpected, then the UFP in **Figure 2** will need to be implemented.

An explanation of key actions within the UFP is provided below:

- **Notifying the Site Supervisor** – Site Supervisor, or an appropriate delegate are to be made aware of the find immediately.
- **Securing the affected area** – This includes restricting access to the area and implementing appropriate environmental controls around affected area in minimise risk to the environment and human health. Examples of controls include barricading the affected area; the diversion of water to minimise potential spread via surface water runoff; covering the area; re-burying; and/or wet-down. Environmental controls are to be implemented appropriately in regard to the contamination source and site conditions.
- **Emergency Response** – In the event that the find presents and/or creates health or environmental concerns which would require an emergency response, call 000 and/or implement the projects incident response and reporting process.
- **Notify Principal or Sydney Metro** – The Principal's Representative and the Environmental Representative must be notified of the unexpected find.
- **Recommence works** – Works can be recommenced in an alternate area where practicable and where it is safe to do so.
- **Assessment** – The potential for any ongoing risk to the environment or human health during construction or operation of the site, and whether or not the agreed scope appropriately manages the contamination will need to be assessed by a competent and qualified person (i.e. a contaminated land specialist or in the case of asbestos a hygienist or asbestos assessor).
- **Material Classification** – Contaminated materials which are to be removed from the site are to be classified in accordance with the NSW EPA *Waste Classification Guidelines* and the Spoil Classification Framework detailed in this document. See **Figure 1** and **Table 1**.

An unexpected find may result in additional works being required for the remediation of contaminated materials which fall outside of the current scope of the project. Any such works will need to comply with all relevant legislation and guidelines and will require appropriately qualified persons to prepare the methodology and controls. Any such works will require approval from Sydney Metro.



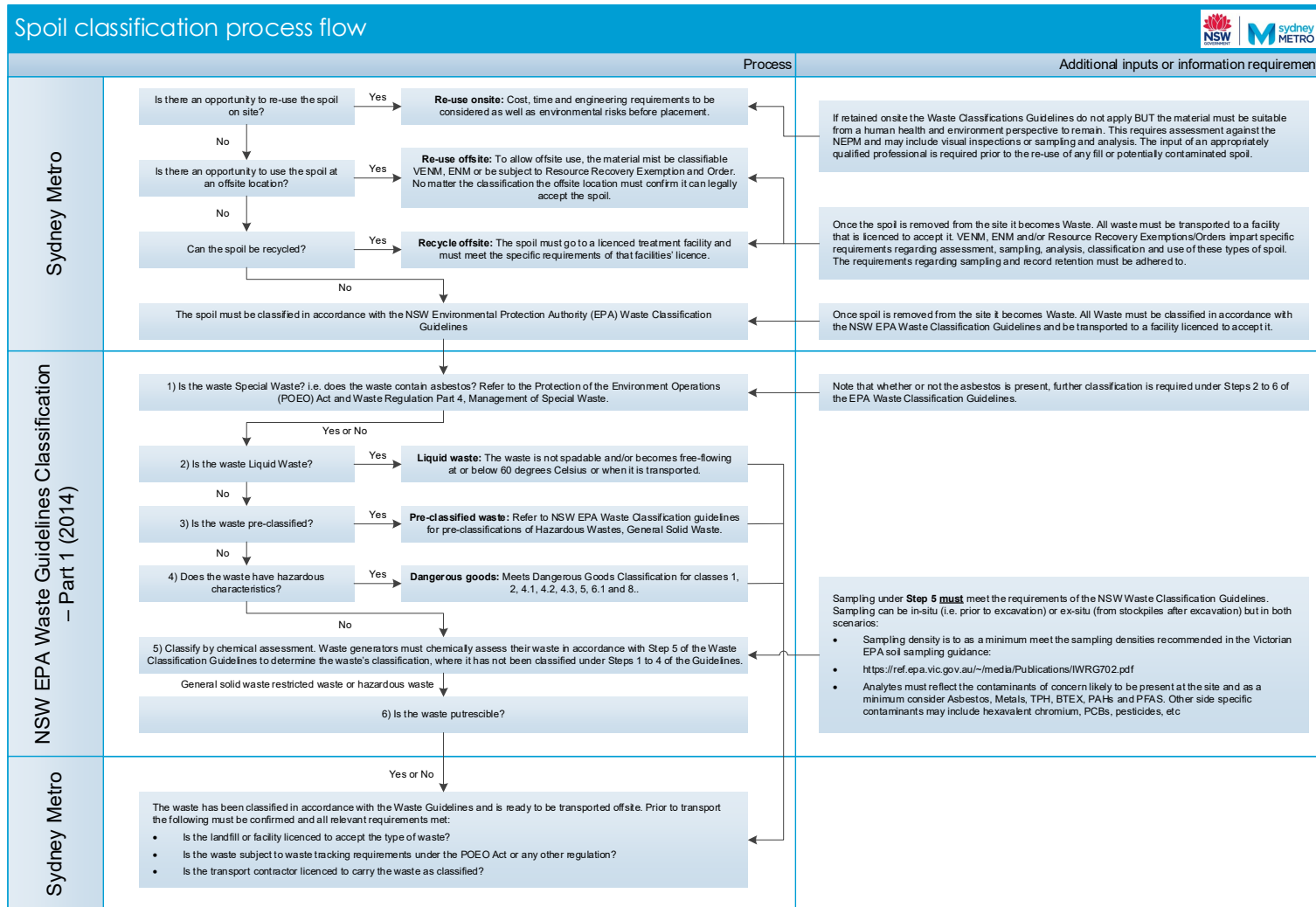


Figure 1: Spoil Classification process flow

Table 1: Spoil Classification process flow

Decision	Criteria	Inputs/Data	Controls/Review
<p>Reuse of the material on or within the approved project area</p> <p>Most preferred option under WARR Act and Sydney Metro environment and sustainability policy.</p>	<p>Suitable placement locations have been identified</p> <p>The material is suitable for the final land use at the placement location in accordance with EPA guidelines made or approved under the CLM Act and will not cause pollution under the POEO Act.</p> <p>The spoil meets engineering requirements for placement locations</p> <p>Where spoil or demolition materials require treatment or processing onsite to treat contaminants or to amend engineering properties, the need for an EPL must be assessed and resulting conditions met.</p> <p>If transport to another project area is required, and such transport requires material to be taken outside the site boundary temporarily, this will need to be appropriately address in the project’s environmental approvals (e.g. EIS or REF).</p>	<p>Appropriate risk-based assessment confirms the material is suitable for proposed final land use from a contamination perspective.</p> <p>Appropriate geotechnical assessment confirms the material is suitable for proposed final land use.</p> <p>EPL if required for onsite processing.</p>	<p>Complete material tracking record, including documentation of final placement location.</p> <p>Environmental controls to prevent cross-contamination of material prior to placement and pollution during placement.</p> <p>Training of relevant personnel in spoil reuse framework and underlying management plans.</p> <p>Audits of sampling data, tracking and placement information, and reuse locations/sites.</p> <p>Long-term management plan and monitoring and/or Environmental Protection Licence under the POEO Act (if required).</p>
<p>Reuse of the material off site.</p> <p>Spoil becomes waste under POEO Act once removed from site.</p>	<p>Material meets VENM definition.</p> <p>Suitable off site reuse locations have been identified and sites have the necessary approvals to accept the material.</p>	<p>Assessment confirms material is VENM.</p> <p>Sampling may be required depending on nature of material and source.</p> <p>Receival site provides confirmation that waste can be accepted:</p> <p>Approval under EP&amp;A Act or EPL.</p> <p>Section 143 certificate.</p>	<p>Material tracking record from the Metro site to the receival site.</p> <p>Environmental controls to prevent pollution during transport.</p>

Decision	Criteria	Inputs/Data	Controls/Review
	<p>Material meets ENM definition.</p> <p>Suitable off site reuse locations have been identified and sites have the necessary approvals to accept the material.</p>	<p>Sampling conducted in accordance with ENM RRO prior to transport off site, and results meet criteria.</p> <p>Statement of RRO compliance provided to each receival site.</p> <p>Receival site provides confirmation that waste can be accepted:</p> <ul style="list-style-type: none"> <li>• Approval under EP&amp;A Act or EPL</li> <li>• Section 143 certificate</li> <li>• Meets RRE conditions.</li> </ul>	<p>Material tracking record from the Metro site to the receival site</p> <p>Environmental controls to prevent pollution during transport</p> <p>RRO records maintained for six years, including details of sampling plan, sampling results, quantities supplied and receival sites</p>
	<p>Material does not meet VENM or ENM definitions but has potential for reuse under a specific RRO/RRE. An example is tunnel spoil containing additives.</p> <p>Suitable off site reuse locations have been identified and sites have the necessary approvals to accept the material</p>	<p>Consult with the EPA, prepare and submit application for specific RRO/RRE.</p> <p>Characterisation data will be required for the application.</p> <p>Once specific RRO/RRE is granted, obtain sampling data (and meet any other specific obligations) in accordance with conditions and confirm results meet criteria prior to transport off site.</p> <p>Statement of compliance provided to each receival site.</p> <p>Receival site provides confirmation that waste can be accepted:</p> <ul style="list-style-type: none"> <li>• Approval under EP&amp;A Act or EPL</li> <li>• Section 143 certificate</li> <li>• Meets RRE conditions.</li> </ul>	<p>As for reuse on site plus:</p> <ul style="list-style-type: none"> <li>• Statement of compliance provided to each receival site</li> <li>• RRO records maintained for six years.</li> </ul>
<p>Recycling off site. Material (spoil and demolition materials) becomes waste under POEO Act once removed from site.</p>	<p>Material meets the EPL and/or planning approval requirements for the receival facility and has value for recycling.</p> <p>Suitable receival facilities have been identified and sites have the necessary approvals to accept the material.</p>	<p>Assessment/sampling confirms the material meets the receival facility EPL conditions (typically GSW).</p> <p>Appropriate EPL held by receival facility.</p> <p>Receival facility has confirmed waste can be accepted.</p>	<p>As for reuse on site plus:</p> <ul style="list-style-type: none"> <li>• Waste tracking documentation depending on waste type</li> </ul>

Decision	Criteria	Inputs/Data	Controls/Review
<p>Disposal off site. Material does not fit one of the above categories and/or suitable reuse or recycling locations could not be identified. Least preferred option.</p>	<p>Waste is classified as GSW, RSW or Special Waste. Suitable receival facilities have been identified and sites have the necessary approvals to accept the material</p>	<p>Pre-classification or sampling results to classify material in accordance with NSW EPA (2014) Waste Classification Guidelines. Appropriate EPL held by receival facilities. Receival facility has confirmed waste can be accepted.</p>	<p>As for reuse on site plus:</p> <ul style="list-style-type: none"> <li>Waste tracking documentation depending on waste type.</li> </ul>
	<p>Waste is classified as HW. Suitable treatment facilities have been identified and sites have the necessary approvals to accept the material.</p>	<p>Pre-classification or sampling results to classify material in accordance with NSW EPA (2014) Waste Classification Guidelines. Appropriate EPL held by treatment facilities Treatment facility has confirmed waste can be accepted.</p>	<p>As for reuse on site plus:</p> <ul style="list-style-type: none"> <li>Waste tracking, treatment and disposal documentation.</li> </ul>

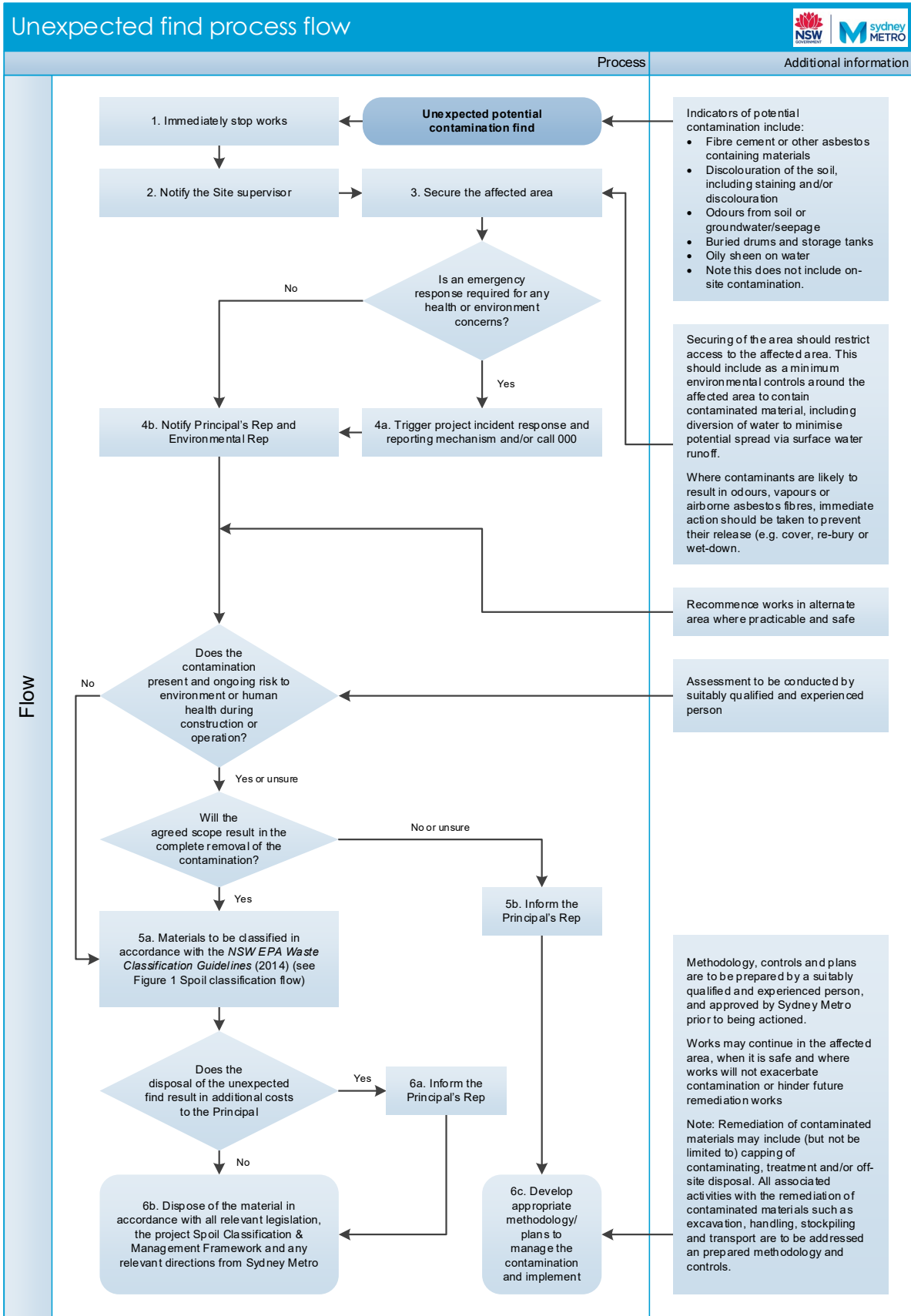


Figure 2: Unexpected find process flow

## 1.7. Accountabilities

The Director Program, Sustainability Environment & Planning is accountable for this document including approving the document, monitoring its effectiveness and performing a formal document review.

Direct Reports to the Chief Executive are accountable for ensuring the requirements of this document are implemented within their area of responsibility.

Direct Reports to the Chief Executive who are accountable for specific projects/programs are accountable for ensuring associated contractors comply with the requirements of this document.

## 2. Related documents and references

### Related documents and references

- Entries should be formatted with IMS/iCentral number followed by correct title and hyperlinked, e.g.
- [SM-17-00000203 Sydney Metro glossary](#)

## 3. Superseded documents

### Superseded Documents

There are no documents superseded as a result of this document.

## 4. Document history

Version	Date of approval	Notes
0.2	Pending	New IMS document.

## APPENDIX C SYDNEY METRO WEST DISPOSAL FLOWCHART (LEAD PAINT DECISION FLOWCHART V0.6)

**Lead Paint – Waste Classification and Tracking Summary**

<b>WASTE CLASSIFICATION (POEO Act and NSW EPA Waste Classification Guidelines)</b>				
<b>Setting</b>	Settings <u>other than</u> residential, <u>educational</u> or child-care institutions <i>Includes non-residential portions of mixed-use structures</i>		Residential, <u>educational</u> or child-care institutions <i>Includes residential portions of mixed-use structures</i>	
<b>Contaminants</b>	Demolition material containing paint containing lead		Demolition material containing paint containing lead	
	Co-contaminated with asbestos	No asbestos present	Co-contaminated with asbestos	No asbestos present
<b>Flow chart reference</b>	Scenario 1	Scenario 2	Scenario 3	Scenario 4
<b>Classification steps</b>	Step 1, Step 3 & Step 5	Step 3 & Step 5	Step 1	Step 3
<b>Classifications</b>	Lead concentrations: SCC < 1500mg/kg and TCLP < 5mg/L <b>Special Waste (Asbestos)</b>	Lead concentrations: SCC < 1500mg/kg and TCLP < 5mg/L <b>General Solid Waste / Building and Demolition Waste</b>	<b>Special Waste (Asbestos)</b>	<b>General Solid Waste / Building and Demolition Waste</b>
	Lead concentrations: SCC 1500 – 6000 mg/kg and TCLP 5 – 20 mg/L <b>Special Waste (Asbestos) and Restricted Solid Waste</b>	Lead concentrations: SCC 1500 – 6000 mg/kg and TCLP 5 – 20 mg/L <b>Restricted Solid Waste</b>		
	Lead concentrations: SCC > 6000 mg/kg or TCLP > 20 mg/L <b>Special Waste (Asbestos) and Hazardous Waste</b>	Lead concentrations: SCC > 6000 mg/kg or TCLP > 20 mg/L <b>Hazardous Waste</b>		
	No chemical assessment performed: <b>Special Waste (Asbestos) and Hazardous Waste</b>	No chemical assessment performed: <b>Hazardous Waste</b>		

<b>WASTE TRACKING (POEO Waste Regulation)</b>				
<b>Setting</b>	Settings <u>other than</u> residential, <u>educational</u> or child-care institutions <i>Includes non-residential portions of mixed-use structures</i>		Residential, <u>educational</u> or child-care institutions <i>Includes residential portions of mixed-use structures</i>	
<b>Contaminants</b>	Demolition material containing paint containing lead		Demolition material containing paint containing lead	
	Co-contaminated with asbestos	No asbestos present	Co-contaminated with asbestos	No asbestos present
<b>Flow chart reference</b>	Scenario 1	Scenario 2	Scenario 3	Scenario 4
<b>Transport within NSW</b>	Part 4 tracking under POEO (Waste) Regulation for any concentration / quantity of lead compounds  Overrides requirement for Part 7 tracking ( <u>WasteLocate</u> ) of >100kg or >10m <sup>2</sup> asbestos waste	Part 4 tracking under POEO (Waste) Regulation for any concentration / quantity of lead compounds	Part 4 tracking under POEO (Waste) Regulation for any concentration / quantity of lead compounds  Overrides requirement for Part 7 tracking ( <u>WasteLocate</u> ) of >100kg or >10m <sup>2</sup> asbestos waste	Part 4 tracking under POEO (Waste) Regulation for any concentration / quantity of lead compounds
<b>Transport interstate</b>	Part 4 tracking under POEO (Waste) Regulation for any concentration / quantity of lead compounds	Part 4 tracking under POEO (Waste) Regulation for any concentration / quantity of lead compounds	Part 4 tracking under POEO (Waste) Regulation for any concentration / quantity of lead compounds	Part 4 tracking under POEO (Waste) Regulation for any concentration / quantity of lead compounds

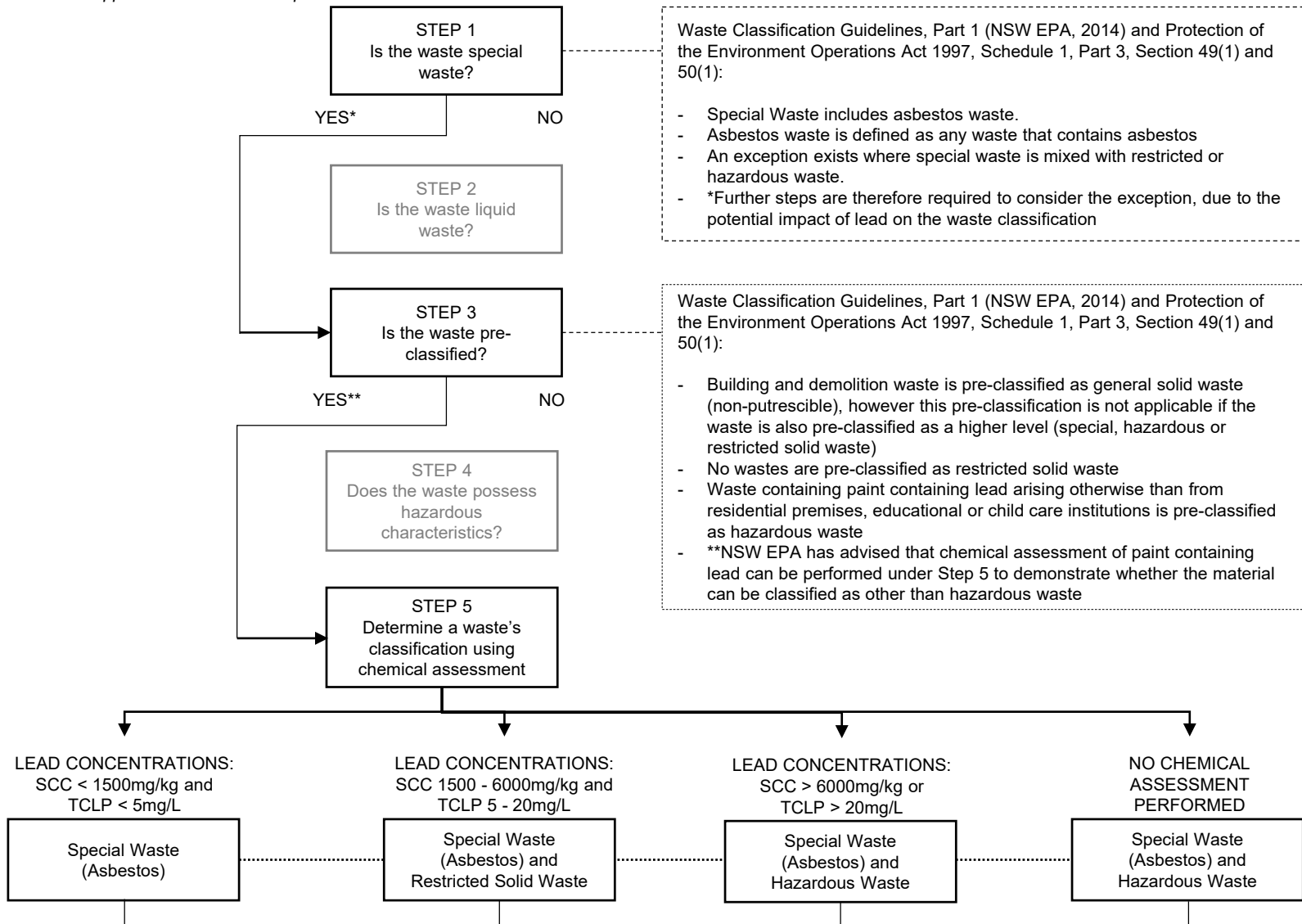
<b>WASTE TRANSPORT LICENSING</b>				
<b>Mass</b>	Less than 200kg per load		Greater than 200kg per load	
<b>Contaminants</b>	Demolition material containing paint containing lead		Demolition material containing paint containing lead	
	Co-contaminated with asbestos	No asbestos present	Co-contaminated with asbestos	No asbestos present
<b>Transport within NSW</b>	EPL not required for waste transport	EPL not required for waste transport	EPL required for waste <u>transport</u> <b>Category 1 Trackable Waste</b>	EPL required for waste transport <b>Category 1 Trackable Waste</b>
<b>Transport interstate</b>	EPL not required for waste transport	EPL not required for waste transport	EPL required for waste transport <b>Category 2 Trackable Waste</b>	EPL not required for waste transport



**Scenario 1: Bulk demolition material; containing paint containing lead; containing asbestos; arising other than from residential, educational or child care institutions<sup>1</sup>**

1. This scenario also applies to non-residential portions of mixed-use structures

WASTE CLASSIFICATION



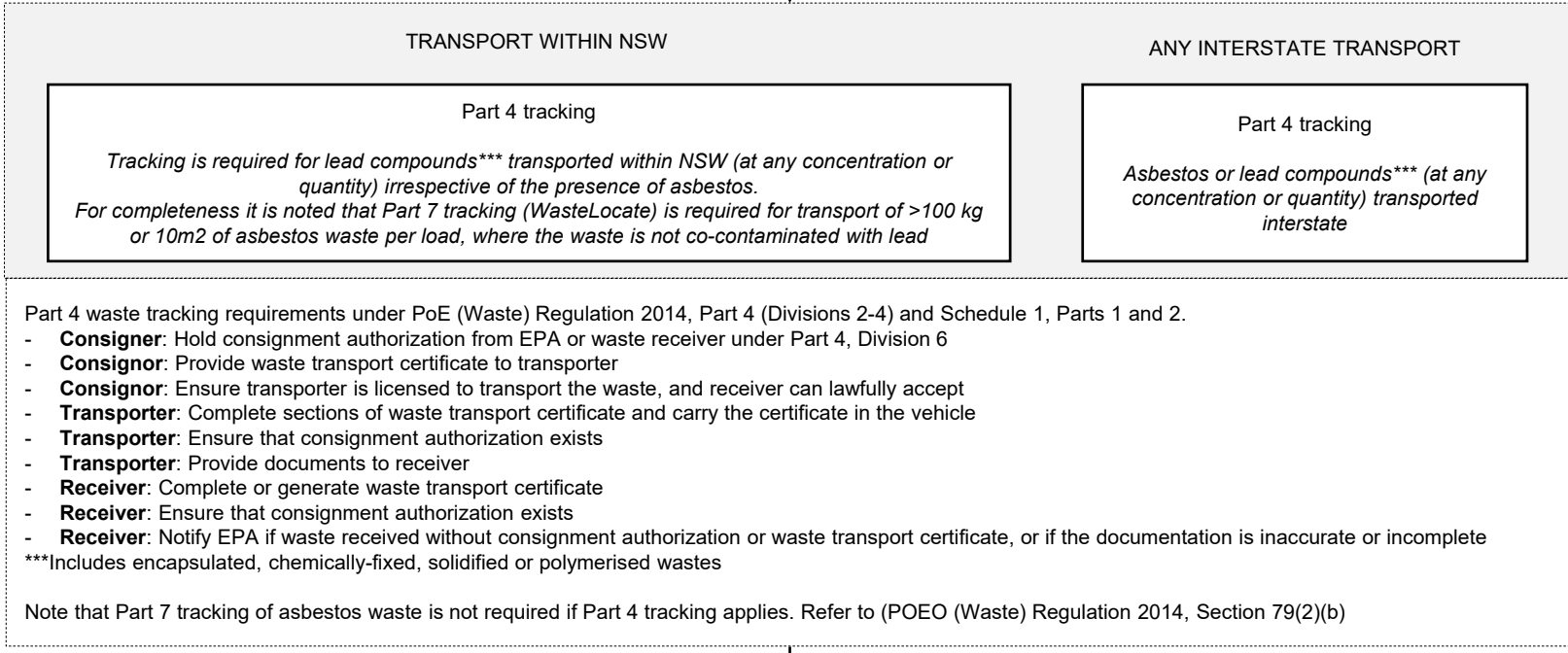
Waste Classification Guidelines, Part 1 (NSW EPA, 2014) and Protection of the Environment Operations Act 1997, Schedule 1, Part 3, Section 49(1) and 50(1):

- Special Waste includes asbestos waste.
- Asbestos waste is defined as any waste that contains asbestos
- An exception exists where special waste is mixed with restricted or hazardous waste.
- \*Further steps are therefore required to consider the exception, due to the potential impact of lead on the waste classification

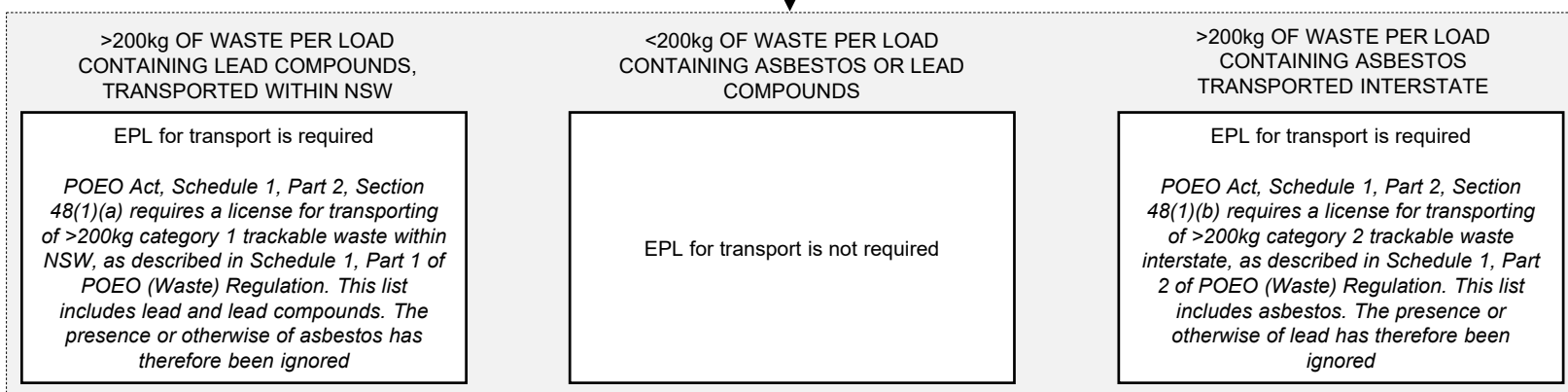
Waste Classification Guidelines, Part 1 (NSW EPA, 2014) and Protection of the Environment Operations Act 1997, Schedule 1, Part 3, Section 49(1) and 50(1):

- Building and demolition waste is pre-classified as general solid waste (non-putrescible), however this pre-classification is not applicable if the waste is also pre-classified as a higher level (special, hazardous or restricted solid waste)
- No wastes are pre-classified as restricted solid waste
- Waste containing paint containing lead arising otherwise than from residential premises, educational or child care institutions is pre-classified as hazardous waste
- \*\*NSW EPA has advised that chemical assessment of paint containing lead can be performed under Step 5 to demonstrate whether the material can be classified as other than hazardous waste

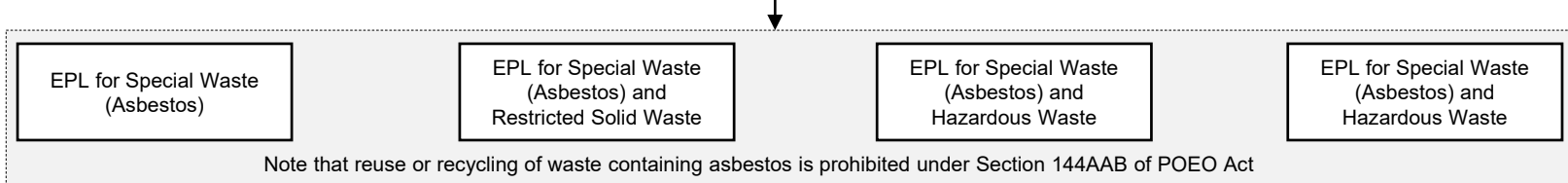
WASTE TRACKING



TRANSPORT LICENSING

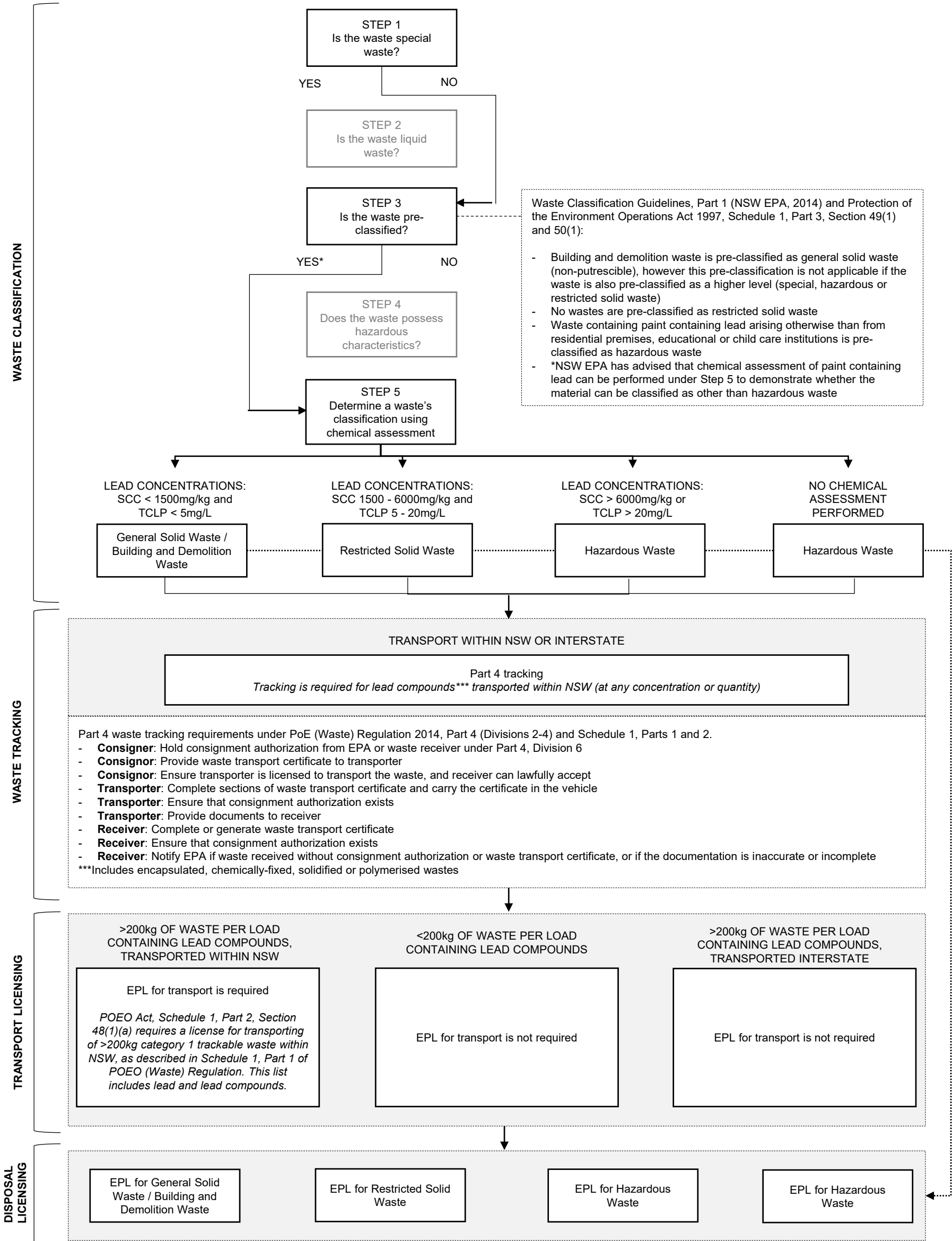


DISPOSAL LICENSING



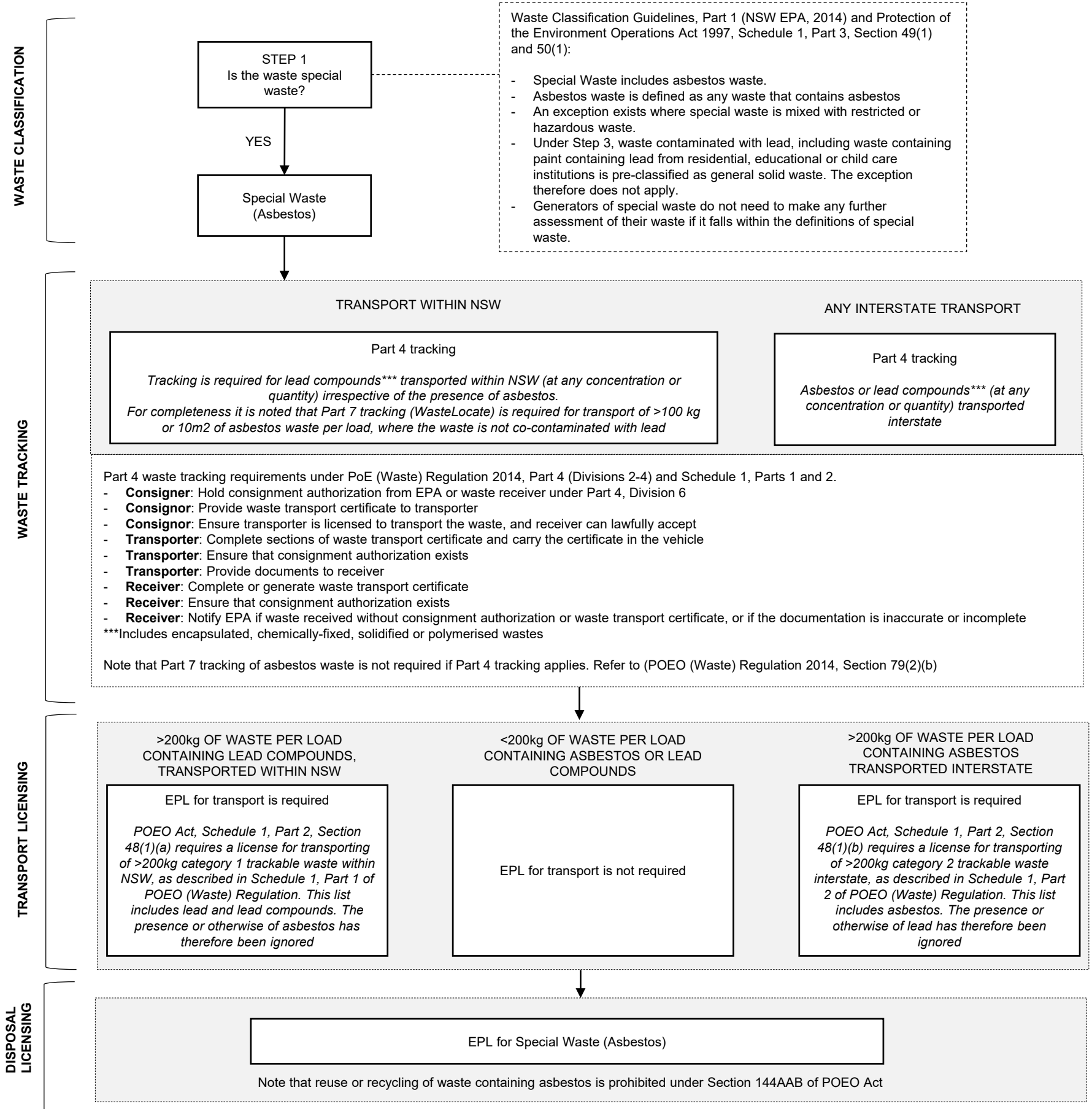
**Scenario 2: Bulk demolition material or segregated material; containing paint containing lead; not containing asbestos; arising other than from residential, educational or child care institutions<sup>1</sup>**

1. This scenario also applies to non-residential portions of mixed-use structures



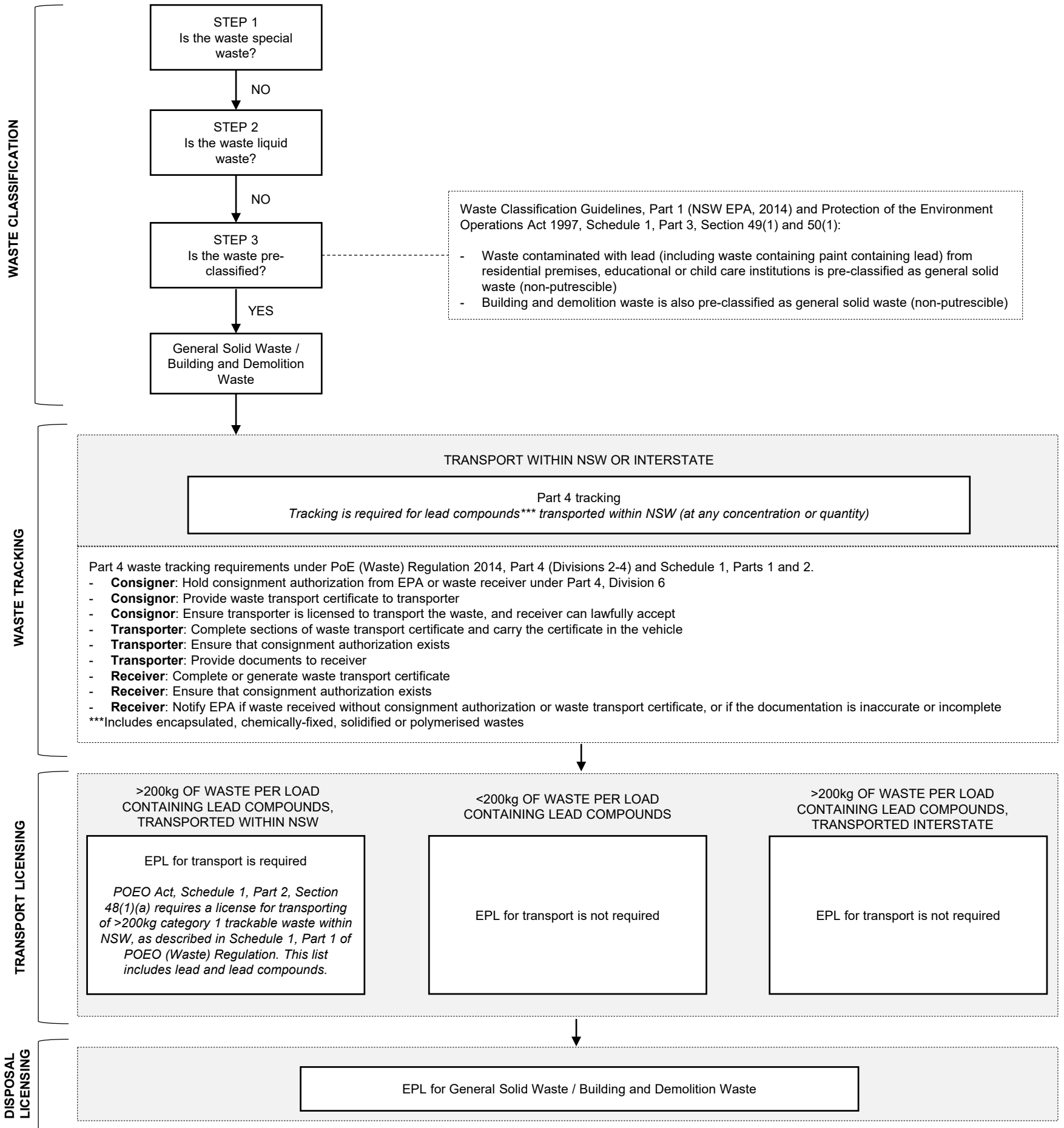
**Scenario 3: Bulk demolition material, containing paint containing lead (at any concentration), containing asbestos, arising from residential, educational or child care institutions<sup>1</sup>**

1. This scenario also applies to residential portions of mixed-use structures



**Scenario 4: Bulk demolition material or segregated material; containing paint containing lead (at any concentration); not containing asbestos; arising from residential, educational or child care institutions<sup>1</sup>**

1. This scenario also applies to residential portions of mixed-use structures



## APPENDIX D STAKEHOLDER CONSULTATION

DOCUMENT NO.	TITLE	VER	STATUS	NO.	DATE	COMPANY	RAISED BY	REVIEW DOC. NO.*	DOCUMENT REF*	DEED REF*	COMMENTS / RESPONSE	COMMENT CATEGORY*	CLOSED OUT
SMWSDDS-DLT-1NL-EM-PLN-000040	Waste management	01.01	RVW	01	31/08/2021	SMD	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Section 7	CEMF 14.2 (c)	No commitment to report all necessary waste and purchasing information to Sydney Metro as required for Sydney Metro to fulfil their WRAPP reporting requirements.	Actual Non-Compliance	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Section 7	CEMF 14.2 (c)		Actual Non-Compliance	Y
				01.01	1/10/2021	DLT	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Section 7	CEMF 14.2 (c)	Included in Section 7.2	Actual Non-Compliance	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Section 7	CEMF 14.2 (c)		Actual Non-Compliance	Y
				02	7/09/2021	SMD	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Figure 1	N/A	Figure 1 is outdated. There is no longer a proposed Metro station at Rydalmere. Please use the figure attached.	Observation	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Figure 1	N/A		Observation	Y
				02.01	7/09/2021	SMD	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Figure 1	N/A	Up to date Sydney Metro scope map attached to this comment.	Observation	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Figure 1	N/A		Observation	Y
				02.01.01	1/10/2021	DLT	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Figure 1	N/A	Updated figure	Observation	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Figure 1	N/A		Observation	Y
				02.02	1/10/2021	DLT	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Figure 1	N/A	Updated figure	Observation	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Figure 1	N/A		Observation	Y
				03	7/09/2021	SMD	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Section 5.3	-	In Section 5.3, the plan notes that 'Delta does not anticipate that spoil will be generated during the Project, as demolition does not include bulk excavation'. It is understood that Delta's scope includes services disconnection and trench excavation. In the event that excess spoil is generated that is not re-used in the trenches, that solid waste material will need to be assessed for beneficial off-site reuse, or classified for off-site disposal to an appropriately licensed landfill facility. Section 5.3 of the plan should be updated to reflect this scenario arising. Further, in the event that the Works scope is updated to include archaeological testing and salvage, and spoil is generated that requires assessment for re-use on-site or off-site disposal, the Plan will need to be updated to include appropriate provisions.	Observation	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Section 5.3	-		Observation	Y
				03.01	1/10/2021	DLT	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Section 5.3	-	Spoil from service diversion and archaeology included	Observation	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Section 5.3	-		Observation	Y
				03.01.01	6/10/2021	SMD	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Rev01	-	The comment response and commensurate plan updates are generally satisfactory, given it is expected that relevant contamination and spoil management elements will be detailed and documented in the separate Spoil Management Subplan (once drafted by Delta).	Observation	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Rev01	-		Observation	Y

DOCUMENT NO.	TITLE	VER	STATUS	NO.	DATE	COMPANY	RAISED BY	REVIEW DOC. NO.*	DOCUMENT REF*	DEED REF*	COMMENTS / RESPONSE	COMMENT CATEGORY*	CLOSED OUT
				04	7/09/2021	SMD	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 6	-	In Table 6, an additional column could be added or detail provided to clarify the 'Waste Classification' column detail - i.e. to state whether certain waste streams are pre-classified under the Waste Classification Guidelines, or whether Table 6 provides indicative waste classifications.	Observation	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 6	-		Observation	Y
				04.01	1/10/2021	DLT	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 6	-	Column heading updated to reflect indicative	Observation	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 6	-		Observation	Y
				05	7/09/2021	SMD	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Section 5.5.1	-	Paragraph 2 in section 5.5.1 should also list the Protection of the Environment (Waste) Regulation 2014 as one of the key requirements that waste disposal will be carried out in accordance with.	Minor Non-Compliance	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Section 5.5.1	-		Minor Non-Compliance	Y
				05.01	1/10/2021	DLT	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Section 5.5.1	-	PoEO Waste Reg added	Minor Non-Compliance	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Section 5.5.1	-		Minor Non-Compliance	Y
				06	7/09/2021	SMD	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Section 5.6, Section 6.1	-	In Section 5.6, while Special and Hazardous Wastes are specified, the plan should include a clear statement to note that all Trackable Waste (per Schedule 1 of the Protection of the Environment (Waste) Regulation 2014) would be tracked per NSW EPA requirements, with records kept and provided to Sydney Metro. The same statement should be repeated in Section 6.1.	Minor Non-Compliance	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Section 5.6, Section 6.1	-		Minor Non-Compliance	Y
				06.01	1/10/2021	DLT	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Section 5.6, Section 6.1	-	Included reference to trackable waste	Minor Non-Compliance	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Section 5.6, Section 6.1	-		Minor Non-Compliance	Y
				07	7/09/2021	SMD	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Appendix B	-	Appendix B (Sydney Metro Waste Classification Procedure) was not included in the pdf document (it jumps from Appendix A to Appendix C). For completeness, this should be corrected in the next iteration of the Plan.	Minor Non-Compliance	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Appendix B	-		Minor Non-Compliance	Y
				07.01	1/10/2021	DLT	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Appendix B	-	Procedure to be appended	Minor Non-Compliance	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Appendix B	-		Minor Non-Compliance	Y
				08	7/09/2021	SMD	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Appendix C, Body of Report	-	Appendix C (Lead Paint Decision Flowchart, v0.6) has been included, but there is no cross reference made in the Plan to this Appendix. It is assumed that Appendix C will be utilised by the Contractor when classifying paint containing lead as part of the Works. The body of the Plan should therefore clearly reference this - such as in sections 5.1 and 5.6, and elsewhere as relevant.	Observation	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Appendix C, Body of Report	-		Observation	Y
				08.01	1/10/2021	DLT	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Appendix C, Body of Report	-	Included reference to the Sydney Metro Disposal Flowchart (Lead Paint Decision Flowchart) in S. 5.1 & 5.6	Observation	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Appendix C, Body of Report	-		Observation	Y
				08.02	6/10/2021	SMD	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Rev 01	-	The comment response and commensurate plan updates are generally satisfactory, noting that the references to Appendix C are listed in sections 6.1 and 6.6 of the revised plan.	Observation	Y

DOCUMENT NO.	TITLE	VER	STATUS	NO.	DATE	COMPANY	RAISED BY	REVIEW DOC. NO.*	DOCUMENT REF*	DEED REF*	COMMENTS / RESPONSE	COMMENT CATEGORY*	CLOSED OUT	
								SMWSDDS-DLT-1NL-EM-PLN-000040	Rev 01	-		Observation	Y	
				09	7/09/2021	SMD		SMWSDDS-DLT-1NL-EM-PLN-000040	Section 7.2	SMW-GS 5.2.2.8 (a)	Section	This section refers to the Sydney Metro City & Southwest Sustainability Template number which must be corrected to address SMW requirements.	Minor Non-Compliance	Y
								SMWSDDS-DLT-1NL-EM-PLN-000040	Section 7.2	SMW-GS 5.2.2.8 (a)	Section		Minor Non-Compliance	Y
				09.01	1/10/2021	DLT		SMWSDDS-DLT-1NL-EM-PLN-000040	Section 7.2	SMW-GS 5.2.2.8 (a)	Section	Updated to reference SMW reporting template.	Minor Non-Compliance	Y
								SMWSDDS-DLT-1NL-EM-PLN-000040	Section 7.2	SMW-GS 5.2.2.8 (a)	Section		Minor Non-Compliance	Y
				09.01.01	6/10/2021	SMD		SMWSDDS-DLT-1NL-EM-PLN-000040	Table 8, Section 8.1	SMW-GS 5.2.2.8 (a)	Section	Thank you for the changes to SM-18-00043350 which was referred in the General Specifications. Unfortunate, the template number of the template included in the contract has different number. Please include a context to clarify that SM-18-00043350, is the revised version of the SME ES-FT - 429 template provided as part of in Exhibit F - Information documents of the contract documents.	Minor Non-Compliance	Y
								SMWSDDS-DLT-1NL-EM-PLN-000040	Table 8, Section 8.1	SMW-GS 5.2.2.8 (a)	Section		Minor Non-Compliance	Y
				10	7/09/2021	SMD		SMWSDDS-DLT-1NL-EM-PLN-000040	Section 5.5.2, 5.9, 6.1 and 6.3	SMW-PS 2.9.3.2 (c)	Section	These sections only refer to the Sydney's diversion target related to the the 95% of demolition waste from landfill. They must be revised to comprehensively cover the Particular Specifications (PS) 2.9.3.2 (c) which stated as follows. 'The Contractor must ensure that at least 95% of inert and non- hazardous construction waste by weight, excluding spoil, and at least 60% of office waste is recycled or alternatively beneficially reused.'	Minor Non-Compliance	Y
								SMWSDDS-DLT-1NL-EM-PLN-000040	Section 5.5.2, 5.9, 6.1 and 6.3	SMW-PS 2.9.3.2 (c)	Section		Minor Non-Compliance	Y
				10.01	1/10/2021	DLT		SMWSDDS-DLT-1NL-EM-PLN-000040	Section 5.5.2, 5.9, 6.1 and 6.3	SMW-PS 2.9.3.2 (c)	Section	Updated targets throughout the document	Minor Non-Compliance	Y
								SMWSDDS-DLT-1NL-EM-PLN-000040	Section 5.5.2, 5.9, 6.1 and 6.3	SMW-PS 2.9.3.2 (c)	Section		Minor Non-Compliance	Y
				11	7/09/2021	SMD		SMWSDDS-DLT-1NL-EM-PLN-000040	General observation	SWM-PS 2.9.3.2 (d)	Section	The context related to the SWM-PS Section 2.9.3.2 (d) is missing ('The Contractor must identify and implement opportunities for recycling and reuse of non-putrescible general solid wastes, other than construction and demolition waste and office waste, during the Contractor's Activities.). Additional context is required to clearly articulate on how to identify and implement the opportunities for continual improvement.	Observation	Y
								SMWSDDS-DLT-1NL-EM-PLN-000040	General observation	SWM-PS 2.9.3.2 (d)	Section		Observation	Y
				11.01	1/10/2021	DLT		SMWSDDS-DLT-1NL-EM-PLN-000040	General observation	SWM-PS 2.9.3.2 (d)	Section	Included references to reuse options for mulch and tree hollows.	Observation	Y
								SMWSDDS-DLT-1NL-EM-PLN-000040	General observation	SWM-PS 2.9.3.2 (d)	Section		Observation	Y
				12	7/09/2021	HBI		SMWSDDS-DLT-1NL-EM-PLN-000040	3.3	REMMS		Suggest adding REMMS into compliance matrix	Observation	Y
								SMWSDDS-DLT-1NL-EM-PLN-000040	3.3	REMMS			Observation	Y
				12.01	1/10/2021	DLT		SMWSDDS-DLT-1NL-EM-PLN-000040	3.3	REMMS		Included	Observation	Y
								SMWSDDS-DLT-1NL-EM-PLN-000040	3.3	REMMS			Observation	Y
				13	7/09/2021	HBI		SMWSDDS-DLT-1NL-EM-PLN-000040	Table 1	CoA A1 & C-A1		Add CoA C-A1 and A1 to table	Observation	Y
								SMWSDDS-DLT-1NL-EM-PLN-000040	Table 1	CoA A1 & C-A1			Observation	Y



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				13.01	1/10/2021	DLT	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 1	CoA A1 & C-A1	Included in lead in text, not included in the table.	Observation	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 1	CoA A1 & C-A1		Observation	Y
				14	7/09/2021	HBI	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 1	CoA A1	Update document references to specific areas where the compliance is addressed	Observation	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 1	CoA A1		Observation	Y
				14.01	1/10/2021	DLT	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 1	CoA A1	This is a general condition and has been addressed in the lead in text to Table 1	Observation	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 1	CoA A1		Observation	Y
				15	7/09/2021	HBI	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 2?	N/A	Table 2 is not in document, please update table numbers as required.	Observation	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 2?	N/A		Observation	Y
				15.01	1/10/2021	DLT	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 2?	N/A	Table numbering amended	Observation	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 2?	N/A		Observation	Y
				16	7/09/2021	HBI	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 3 - CEMF	CEMF	Update Table 3 (CEMF) to show where requirements are addressed in the plan	Observation	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 3 - CEMF	CEMF		Observation	Y
				16.01	1/10/2021	DLT	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 3 - CEMF	CEMF	Relevant references included	Observation	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 3 - CEMF	CEMF		Observation	Y
				17	7/09/2021	HBI	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	5.4	N/A	Include crib/office waste streams	Observation	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	5.4	N/A		Observation	Y
				17.01	1/10/2021	DLT	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	5.4	N/A	Included in Table 6	Observation	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	5.4	N/A		Observation	Y
				18	7/09/2021	HBI	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 5	REMMS	Table 5 has not heading. Suggest separating out the REMMS from Delta's mitigation measures to avoid confusion with approval requirements.	Observation	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 5	REMMS		Observation	Y
				18.01	1/10/2021	DLT	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 5	REMMS	Amended	Observation	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 5	REMMS		Observation	Y
				19	7/09/2021	HBI	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 5 - WR1	REMM WR1	Monitoring and reporting should include site tracking system as required by REMM WR5.	Observation	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 5 - WR1	REMM WR1		Observation	Y
				19.01	1/10/2021	DLT	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 5 - WR1	REMM WR1	Section 5.7	Observation	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 5 - WR1	REMM WR1		Observation	Y

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				20	7/09/2021	HBI	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 5 WR2	REMM WR2	Target doesn't match mitigation measure for hazardous material survey and disposal	Observation	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 5 WR2	REMM WR2		Observation	Y
				20.01	1/10/2021	DLT	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 5 WR2	REMM WR2	Amended target to reflect measure.	Observation	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 5 WR2	REMM WR2		Observation	Y
				21	7/09/2021	HBI	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 5 WR3	REMM WR3	Monitoring and reporting doesn't match the REMM requirements	Minor Non-Compliance	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 5 WR3	REMM WR3		Minor Non-Compliance	Y
				21.01	1/10/2021	DLT	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 5 WR3	REMM WR3	Amended to reflect requirement	Minor Non-Compliance	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 5 WR3	REMM WR3		Minor Non-Compliance	Y
				22	7/09/2021	HBI	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 5 WR3	REMM WR2	Section 5.5.2 doesn't relate to materials and packaging bought to site	Observation	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 5 WR3	REMM WR2		Observation	Y
				22.01	1/10/2021	DLT	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 5 WR3	REMM WR2	Updated reference	Observation	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 5 WR3	REMM WR2		Observation	Y
				22.01.01	7/10/2021	HBI	[REDACTED]				Not addressed. Note that updated version doesn't have Section 5.5.2.	Observation	Y
							[REDACTED]					Observation	Y
				23	7/09/2021	HBI	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 5 WR4	REMM WR4	What are the targets of other waste streams? ie liquid waste, food scraps, contaminated materials etc. How are these to be managed?	Minor Non-Compliance	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 5 WR4	REMM WR4		Minor Non-Compliance	Y
				23.01	1/10/2021	DLT	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 5 WR4	REMM WR4	Updated target to reflect SM project requirement	Minor Non-Compliance	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 5 WR4	REMM WR4		Minor Non-Compliance	Y
				24	7/09/2021	HBI	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 5 WR5	REMM WR5	Add how the materials tracking system implemented into this plan?	Observation	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 5 WR5	REMM WR5		Observation	Y
				24.01	1/10/2021	DLT	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 5 WR5	REMM WR5	Updated reference to S. 5.7	Observation	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 5 WR5	REMM WR5		Observation	Y
				25	7/09/2021	HBI	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 5 WR5	REMM WR5	Target doesn't match REMM requirements for a material tracking system	Observation	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 5 WR5	REMM WR5		Observation	Y
				25.01	1/10/2021	DLT	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 5 WR5	REMM WR5	Updated target	Observation	Y
							[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 5 WR5	REMM WR5		Observation	Y

DOCUMENT NO.	TITLE	VER	STATUS	NO.	DATE	COMPANY	RAISED BY	REVIEW DOC. NO.*	DOCUMENT REF*	DEED REF*	COMMENTS / RESPONSE	COMMENT CATEGORY*	CLOSED OUT
SMWSDDS-DLT-1NL-EM-PLN-000040	Waste management	03.01	RVW	26	5/12/2021	SMD	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 6	N/A	Table 6: Sanitary waste is listed as clinical waste. It is my understanding that this classification is only if the waste has been generated from medical, nursing, dental, pharmaceutical, skin penetration or other related clinical activity. Otherwise it is GSW.	Observation	N
					20/12/2021	DLT	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 6	N/A	Updated to reflect the pre-classification of GSW Non-putrescible.	Observation	N
				27	5/12/2021	SMD	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 6.6	SMWSDDS-SMD-PTA-EM-SCW-007838	Whilst Table 9 in the Spoil Management Plan includes disposal sites for classified waste, this needs to be included in the Waste Management Plan and be expanded to include ASS/PASS and VENM/ EMN receival sites.	Observation	N
					20/12/2021	DLT	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Table 6.6	SMWSDDS-SMD-PTA-EM-SCW-007838	Updated to reflect the pre-classification of GSW Non-putrescible. Note that the VENM/ENM sites can not be confirmed until much closer to the disposal date to line up with an approved site that is ready to accept the material.	Observation	N
				28	5/12/2021	SMD	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Appendix A	N/A	Appendix A - QF 029 includes a GSWr category that needs to be defined, with receival sites included in a Table in section 6.6 as per comment 27.	Observation	N
					20/12/2021	DLT	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040	Appendix A	N/A	Included in Section 6.4. It is not practical to list out all of the possible locations that can accept the CT1 soils (GSWr) as each site has slightly different criteria.	Observation	N
				29	7/12/2021	SMD	[REDACTED]				No Comments		Y
					20/12/2021	DLT	[REDACTED]				Noted		Y
				30	8/12/2021	HBI	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040.03.RVW.03.	3.1	Na	In section 3.1 third paragraph second sentence change "This package of works" to Phase C1	Observation	N
					20/12/2021	DLT	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040.03.RVW.03.	3.1	Na	Updated wording.	Observation	N
				31	8/12/2021	HBI	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040.03.RVW.03.	3.7	Na	Please provide some explanation of what is in Figures 2 to 4 with respect to Phase C2 in section 3.7	Observation	N
					20/12/2021	DLT	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040.03.RVW.03.	3.7	Na	Clarified wording in S. 3.7	Observation	N
				32	8/12/2021	HBI	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040.03.RVW.03.	6.4	Na	The generation of 20,000 T of spoil at Parramatta to be disposed of off site needs to be included in section 6.4 and Tables 6 & 7	Minor Non-Compliance	N
					20/12/2021	DLT	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040.03.RVW.03.	6.4	Na	Detail of Parramatta and Clyde spoil quantities added to Section 6.4 and included additional Table 8.	Minor Non-Compliance	N
				33	8/12/2021	HBI	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040.03.RVW.03.	6.4	Na	sending 20,000 T off site as per the spoil management plan may impact on the statements in 6.6.2.	Observation	N
					20/12/2021	DLT	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040.03.RVW.03.	6.4	Na	No changes made. Current wording still relevant.	Observation	N
				34	8/12/2021	HBI	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040.03.RVW.03.	Table 9	Na	Phase C2 is a stand alone activity and should be added to the Works column in Table 9	Observation	N
					20/12/2021	DLT	[REDACTED]	SMWSDDS-DLT-1NL-EM-PLN-000040.03.RVW.03.	Table 9	Na	Phase C2 added to the Works column of Table 9	Observation	N
				35	13/12/2021	HBI	[REDACTED]				No Comments		Y
					20/12/2021	DLT	[REDACTED]				Noted		Y

## APPENDIX E ENVIRONMENTAL REPRESENTATIVE ENDORSEMENT

[REDACTED]

[REDACTED]

21 October 2021

REF: 201208(c) CWMP REV2

**RE: Sydney Metro Parramatta, Clyde and Westmead Enabling Works: Waste Management Sub Plan (WMSP)**

I refer to Sydney Metro's (SM) submission of the following document required by Condition C1 of the Sydney Metro West Infrastructure Approval (SSI 10038) which was approved by the Department of Planning, Industry and Environment (DPIE) on 11 March 2021:

- Sydney Metro West, Delta Group Waste Management Sub Plan (WMSP Rev2, 18 October 2021).

It is noted that:

- The WMSP has been developed by Delta for its demolition works to meet the specific requirements of the Construction Environment Management Framework (CEMF), and address specific waste management requirements of the Infrastructure Approval as these relate to demolition at Parramatta, Clyde and Westmead enabling work sites.
- Previous versions of the document have been reviewed and updated following comments from the ER.
- Sydney Metro has also reviewed and commented on the document.

Following the above reviews the document is considered to contain information required by the Conditions of Approval (SSI 10038) in relation to the C1.

Noting the above, as the approved Environmental Representative for the Metro West and as required by Conditions A30(d) and C8, the Waste Management Sub Plan (WMSP Rev 2) is endorsed.





The endorsement is conditional up Delta obtaining and complying with any relevant approval, licence or permit required for the works; complying with relevant Conditions of Approval as they relate to the works; and appropriate notifications being issued prior to the works.

Yours sincerely

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