

PROJECT MANAGEMENT PLAN

Spoil Management Plan

Sydney Metro West – Western Tunnelling Package

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DOCUMENT CONTROL

The current document version number and date of revision are shown in the document footer. All changes made to the Management Plan during its implementation on a live project are to be recorded in the amendment tables below.

Revision History

Revision	Date	Description of changes	Prepared by	Approved by
A	31/01/2022	Early Works Submission	Niall Fry	Simon Hussey
B	16/03/2022	Draft for stakeholder consultation	Niall Fry	Simon Hussey
C	12/04/2022	Revised draft for stakeholder consultation	Niall Fry	Simon Hussey
D	16/05/2022	Final draft following stakeholder consultation	Niall Fry	Simon Hussey

Terms and Definitions

Term	Definition
ACM	Asbestos Containing Material
ADT	Articulated Dump Trucks
ASS	Acidic Sulfate Soil
CEMF	Construction Environmental Management Framework
CEMP	Construction Environmental Management Plan
CoR	Chain of Responsibility
DPE	Department of Planning and Environment (NSW)
DSI	Detailed Site Investigation
EA	Environmental Advisor
ECM	Environmental Control Measures
EIS	Environmental Impact Statement
EM	Environmental Manager
EMS	Environmental Management System
ENM	Excavated Natural Material
EPA	Environmental Protection Authority
EPBC	Environmental Protection and Biodiversity Conservation Act 1999
EPL	Environmental Protection License
EPRM	Excavated Public Road Material
ER	Environmental Representative
ESR	Environmental Site Representative
EWMS	Environmental Work Method Statement
GALC	Gamuda Australia – Laing O’Rourke Consortium
GSW	General Solid Waste
GVM	General Vehicle Maintenance
HSW	Hazardous Solid Waste
HVNL	Heavy Vehicle National Law
LAW	Local Area Works
CoA	Condition of Approval
MSF	Maintenance and Stabling Facility
NATA	National Association of Testing Authorities
OOHW	Out of Hours Works
PASS	Potential Acidic Sulfate Soil
PM	Project Manager
POEO	Protection of the Environment Operations Act 1997 (NSW)
RAP	Remediation Action Plan
REMM	Revised Environmental Mitigation Measures

Term	Definition
RRE	Resource Recovery Exemptions
RRO	Resource Recovery Order
RSW	Restricted Solid Waste
SAQP	Sampling, Analysis and Quality Plans
SCC	Specific Contaminant Concentration
SOPA	Sydney Olympic Park Authority
SPMP	Spoil Management Plan
Spoil	Excavated earth material
TBM	Tunnel Boring Machine
TCLP	Toxicity Characteristic Leaching Procedure
UHF	Ultra-High Frequency
VENM	Virgin Excavated Natural Material
Waste	Unusable material generated from construction activities
WTP	Sydney Metro West – Western Tunnelling Package

1 INTRODUCTION

1.1 Project Description

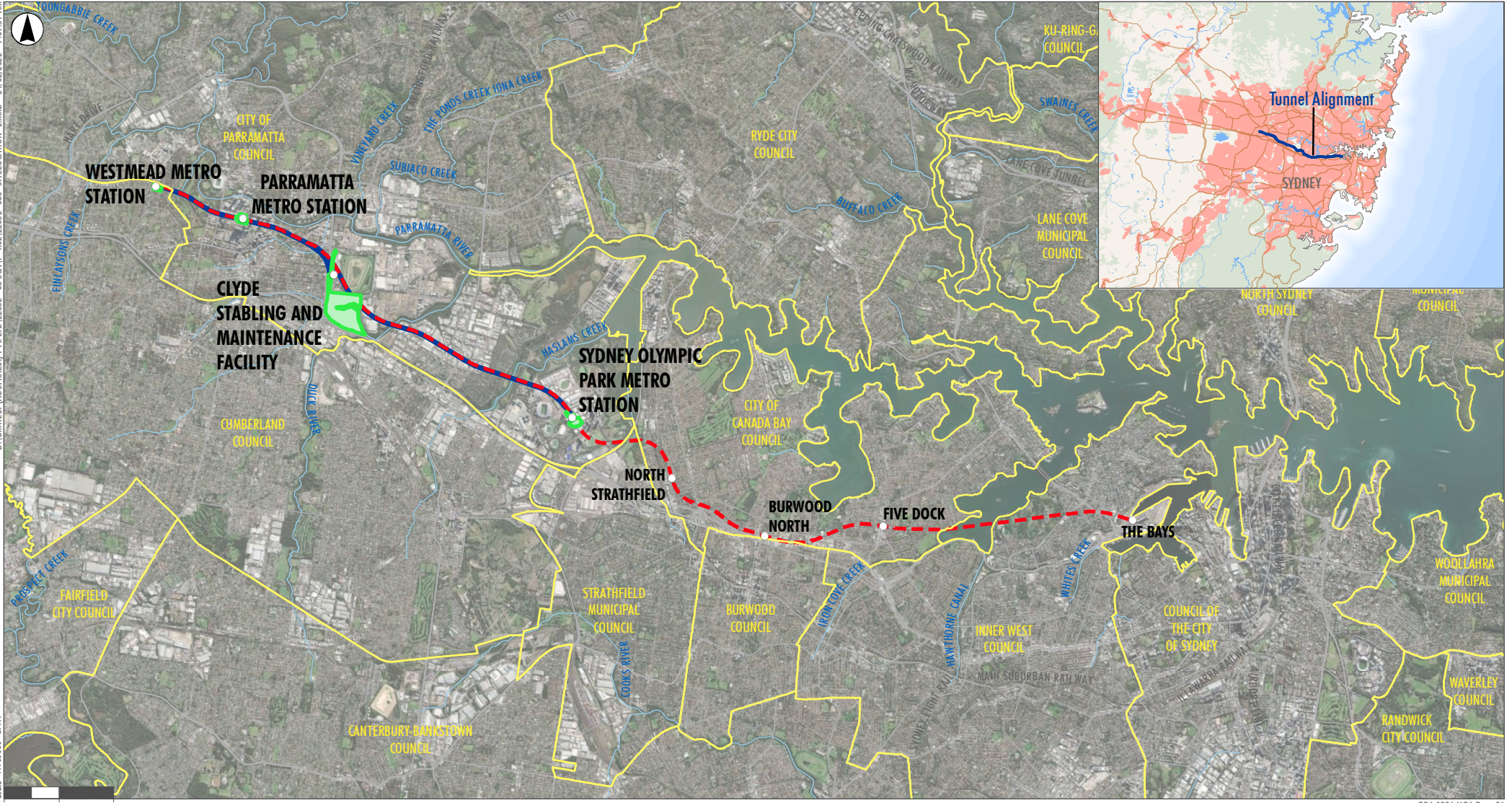
The scope of the work being undertaken under the Sydney Metro West Western Tunnelling Package works (WTP) (the Project) includes but is not limited to, the following:

- Westmead Station box excavation, including temporary support, stub tunnels, partially mined station cavern and crossover cavern including permanent lining and support
- Parramatta Station, including excavation of station box and associated support
- Clyde Maintenance and Stabling Facility (MSF), including permanent dive structure, portal, spur running tunnels, spur tunnel junction cavern, bulk earthworks, civil structures, utilities corridor, road crossing and creek diversion
- Rosehill Services Facility, including shaft excavation, permanent lining and lateral support
- A precast segment manufacturing facility at Eastern Creek
- Demolition and site clearance works
- Tunnelling between Sydney Olympic Park (SOP) and Westmead. Tunnelling will be undertaken by placing the tunnel boring machines (TBMs) at the Rosehill Services Facility box and retrieved out at the SOP Station Box and then placed back at the Rosehill Services Facility and retrieved at the Westmead Station Box. No surface works are proposed at SOP except for the retrieval of the TBM.

Refer to Figure 1 for the location of the WTP project.

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Scale 1:100,000 at A4



Legend

- Surface Construction Sites
- The Project (Western Tunnelling Package)
- Sydney Metro West Concept and Stage 1
- Approved Station Sites
- Local Government Boundary
- Road
- Drainage Line
- Railway Line

1.2 Context

The Construction Environmental Management Plan (CEMP) and sub-plans have been developed for the delivery of the WTP. It will be delivered by Gamuda Australia Laing O'Rourke Consortium (GALC). This Spoil Management Plan (SPMP) forms part of the CEMP (SMWSTWTP-GLO-1NL-EV-PLN-000001).

Sydney Metro West – Westmead to The Bays Concept and Stage 1 received planning approval on 11 March 2021 (SSI 10038). The Project comprises the WTP, which is the western portion of Stage 1 of SSI 10038, from Sydney Olympic Park to Westmead. This SPMP has been prepared to address requirements of the Minister's Conditions of Approval (MCoA) and any modifications to the MCoA, Revised Environmental Management Measures (REMMs) listed in the Sydney Metro West – Submissions Report, dated 20 November 2020, the Construction Environmental Management Framework (CEMF) requirements and all applicable legislation as they relate to the Project.

1.3 Environmental Management System Overview

The Project CEMP is the primary Environmental Management System (EMS) document for the delivery of the proposed works. This SPMP is one of a suite of aspect-specific support plans that have been prepared to support the CEMP. An overview of the EMS is provided in the CEMP (Section 4).

Key interactions for this sub-plan with other management plans in the EMS include:

- Site Establishment Management Sub-plan
- Soil and Water Management Sub-plan
- Air Quality Management Sub-plan
- Visual Amenity Management Sub-plan
- Noise and Vibration Management Sub-plan
- Groundwater Management Sub-plan
- Heritage Management Sub-plan
- Waste Management Sub-plan – to address requirements relating to waste
- Chain of Responsibility (CoR) Management Sub-plan
- Construction Traffic Management Sub-Plan
- Sustainability Management Plan
- Community Communication Strategy.

1.4 Consultation Requirements

In accordance with MCoA's C5 and D84, this SPMP has been prepared in consultation with:

- Sydney Olympic Park Authority (SOPA) (in respect of Sydney Olympic Park)
- City of Parramatta Council
- Cumberland City Council.

Consultation was undertaken over a 21-day period, commencing on 5 April 2022 with the submission of the SPMP. The Consultation approach was applied across all plans and stakeholders and included issuing of the document to stakeholders accompanied by an introductory workshop. Following receipt of comments two weeks later, an offer was made to hold a comment review workshop to discuss and

close comments directly with the stakeholder the following week. A second workshop would also be made available should there be any outstanding or technical issues requiring further discussion.

An introductory meeting was held on 31 March with City of Parramatta Council, 1 April with SOPA and 7 April with Cumberland City Council, which was organised by Sydney Metro and delivered by GALC. At the introductory meeting, GALC introduced themselves, the project team and outlined the scope of the WTP. The consultation approach was presented, and feedback invited on that approach. No issues were raised on the consultation approach during the introductory meetings.

None of the stakeholders took the offer of a comment review workshop in relation to their review of this SPMP.

Details of issues raised by stakeholders during consultation is provided in Attachment 2, including copies of correspondence in accordance with MCoA A6. The approach to consultation is further outlined in the CEMP.

1.5 Certification and Approval

Sydney Metro West – Westmead to The Bays Concept and Stage 1 was subject to environmental impact assessment under the NSW Environmental Planning and Assessment Act 1979 (EP&A Act). It was also declared a Critical State Significant Infrastructure (CSSI) by the Minister for Planning & Public Spaces (the Minister).

An Environmental Impact Statement (EIS) has been prepared under Division 5.2 of the EP&A Act and in accordance with Part 3 of Schedule 2 of the Environmental Planning and Assessment Regulation 2000. Following exhibition of the EIS, an Amendment Report and Submissions Report were also prepared. After an assessment was carried out, the Minister determined that the Sydney Metro West – Stage 1 would be approved subject to conditions.

The planning approval (Infrastructure Approval SSI 10038) and related environmental assessment documents are located at: <https://www.planningportal.nsw.gov.au/major-projects/project/25631>.

This SPMP is subject to approval by the Planning Secretary to be endorsed by the ER. This SPMP will be submitted to the ER for endorsement and DPE for information no later than one (1) month before the commencement of construction. Construction will not commence until this SPMP has been approved by the Planning Secretary.

This SPMP will be implemented for the duration of construction.

2 PURPOSE AND SCOPE

2.1 Purpose

The purpose of this SPMP is to describe the spoil management approach that will be employed by GALC employees and its subcontractors during construction of the Project. This sub-plan forms an integral part of the Project's CEMP and GALC's EMS. It applies to all works associated with Project works and establishes the environmental management controls to be implemented by GALC employees and its subcontractors.

This SPMP will address the spoil management requirements of the:

- Sydney Metro Construction Environmental Management Framework (CEMF)
- Minister for Planning and Public Space's Conditions of Approval for the Project (MCoA)
- Revised Environmental Mitigation Measures (REMMs)
- SSI Modifications - Modification 1 Administrative Modification
- SSI Modifications - Modification 2 Clyde Stabling And Maintenance Facility
- Infrastructure Sustainability Council (ISC) Infrastructure Sustainability (IS) rating tool.

2.2 Scope

This sub-plan outlines the mitigation and management measures that GALC will use to address potential spoil related impacts during construction of the Project, while complying with relevant approval, statutory and contract requirements.

This Plan addresses the handling and management of spoil. Should disposal of spoil be deemed necessary, it will be managed in accordance with the Waste Management Plan which should be read in conjunction with this SPMP. Additionally, waste reuse, recovery and disposal of all other waste is also addressed by the Waste Management Plan. Contaminated spoil designated for remediation, offsite reuse or disposal will be managed in accordance with the relevant Remedial Action Plan (RAP), which is discussed in the Soil and Water Management Sub-plan.

Specifically, this sub-plan addresses environmental aspects and impacts that relate to:

- Unlawful disposal of spoil
- Erosion and sedimentation
- Contamination and cross-contamination
- Noise and vibration from haulage
- Failure to identify reuse opportunities
- Failure to identify spoil reduction opportunities
- Traffic impacts from spoil haulage.

3 OBJECTIVES AND TARGETS

The key objectives of the SPMP are to ensure that impacts related to spoil management are minimised and are within the scope permitted by the MCoA. To achieve these objectives, the targets in Table 1 have been established for the management of spoil management impacts during the Project construction.

Table 1: Spoil management targets and performance criteria

Objective	Targets	Performance Indicators
Minimise Spoil generation where possible	Limiting spoil generating activities Efficient construction practices	Waste Tracking Register Validation Reports Survey Modelling Regular audits & inspections
Compliance with the MCoA, REMMs, CEMF requirements and relevant legislation as it applies to the Project	Full compliance	Compliance Reporting
100% Reuse or recycling (on or off-site) of Usable spoil	100% Beneficial reuse of usable spoil within bulk fill areas i.e., Clyde MSF 100% Beneficial reuse of usable spoil within environmental and/or development sites	Waste Tracking Register Validation Reports Material Classification Reports
Minimising adverse traffic and transport related issues when transporting spoil	Not exceed limitations set out in the EIS and Noise & Vibration assessments Zero traffic related incidents or complaints	GPS Tracking Incident Report Complaints Register Compliance Reporting
Spoil managed to avoid contamination of land or water	Not exceed limitations set out in the EIS & Soil and Water Management Plan & applicable RAP's Zero contamination related incidents	Regular audits & inspections Incident Report Compliance Reporting Site Audit Report
Spoil managed with consideration of the impacts to residents and other sensitive receivers	Minimise impact to sensitive receivers Zero complaints received by nearby land owners	Complaints Register Compliance Reporting Regular audits & inspections Incident Report
Site contamination managed to limit potential risk to human health and the environment	Not exceed limitations set out in the EIS & Soil and Water Management Plan & applicable RAP's	Validation Report Site Audit Report Complaints Register Compliance Reporting
Spoil generated during the construction is effectively stored,	Minimise impact to environmental values	Safe work practices & procedures

Objective	Targets	Performance Indicators
handled, treated (if necessary), reused, and/or disposed of lawfully and in a manner that protects environmental values.		Validation Report Site Audit Report Compliance Reporting
Ensure project personnel are aware and competent in their responsibilities in relation to the management of spoil	100% of project personnel aware of responsibilities under the CEMF and this SPMP	Project induction and training register Compliance Reporting

3.1 Reuse and Recycling Targets

Spoil production will account for most of the surplus material produced from the Project, with close to 864,800m³ of surplus material requiring offsite reuse. Whilst the Clyde Maintenance and Stabling Facility (MSF) has the potential to retain a large quantum of spoil, offsite reuse will still be necessary. Assuming contaminated material can be retained and reused in the Clyde MSF, the bulk of surplus material is expected to be classified as Virgin Excavated Natural Material (VENM) / Excavated Natural Material (ENM).

Spoil will be reused onsite, or offsite to another construction site, wherever possible. This will reduce the environmental impacts associated with the transport and disposal of spoil, including traffic, noise, water and air pollution.

To manage spoil throughout the lifecycle of the Project, GALC have established a series of waste recycling targets aimed at furthering the beneficial reuse targets. Table 2 provides detail around each of the nominated waste streams and their respective targeted reuse strategies.

Existing Resource Recovery Orders/Exemptions (RRO/RRE) may be used in conjunction with project specific exemptions upon submission and approval from the EPA. GALC plan on seeking additional exemptions during the delivery phase namely around Tunnel spoil that may have small traces of shotcrete and Potential Acidic Sulfate Soil (PASS) / Acidic Sulfate Soil (ASS) for use within development sites.

Table 2 Waste Stream Reuse & Recycling Targets

Waste Stream	Waste Classification	Disposal Method	Target Reuse/Recovery
VENM (Virgin Excavated Natural Material) or ENM (Excavated Natural Material)	VENM or ENM (where disposed off-site to a non-licensed facility in accordance with relevant Resource Recovery Orders).	Reuse onsite, Clyde MSF Lower & Upper General Fill, Structural Fill Offsite reuse by way of Resource Recovery Order/Exemption Offsite Reuse by way of Section 143 (S143) Offsite reuse at an approved facility	100%

Waste Stream	Waste Classification	Disposal Method	Target Reuse/Recovery
Potentially Contaminated Soils	Should material be designated for offsite removal; prior classification will be carried out in accordance with EPA Waste Classification Guidelines Parts 1 & 2 (EPA, 2014)	Onsite remediation and reuse; Clyde MSF Lower & Upper General Fill Offsite reuse by way of Resource Recovery Order/Exemption Offsite reuse at an approved facility	100% that is permitted to be beneficially reused in accordance with Project Specifications, RAP, Legislation, and relevant Guidelines
Potential or Actual Acid Sulphate Soils (PASS/ASS)	Should material be designated for offsite removal; prior classification will be carried out in accordance with EPA Waste Classification Guidelines Parts 1 & 2 (EPA, 2014)	Onsite remediation and reuse; Clyde MSF Lower & Upper General Fill Offsite reuse by way of Resource Recovery Order/Exemption Offsite reuse at an approved facility	100% that is permitted to be beneficially reused in accordance with Project Specifications, RAP, Legislation and relevant Guidelines

3.2 IS Rating Tool Targets

GALC’s approach to managing spoil also includes the IS rating tool requirements for waste management. GALC’s targets and measurement tools are detailed in Table 3.

Table 3: IS Rating Tool Targets applicable to spoil management

Objective	Targets	Measurement Tools
Meet IS rating tool requirements and objectives applicable to spoil management detailed in the Sustainability Management Plan	Level 2 for credit IS Was-1 ‘Waste Management’, demonstrating that predictions of waste quantities and types have been developed for construction and operation whilst measures to minimise wastes have been implemented along with monitoring, waste management, and waste handling have been audited and reviewed at appropriate intervals Level 3 for credit IS Was-2 ‘Diversion from landfill’, demonstrating a diversion of 100% of spoil volume, >90% of inert and non-hazardous waste volume, and >60% of office waste material volume.	Waste Monitoring Records and Reports Review/audit reports

4 ENVIRONMENTAL REQUIREMENTS

4.1 Legislation and Regulations

GALC obligations include satisfying the requirements and complying with the provisions of the relevant legislation, guidelines, and policies, as well as international and Sydney Metro’s standards. Details are provided in Table 4.

Table 4 Relevant legislation to the Project

Legislation	Environmental Planning and Assessment Act 1979 Protection of the Environment Operations Act 1997 Protection of the Environment Operations (General) Regulation 2009 Protection of the Environment Operations (Waste) Regulation 2014 Waste Avoidance and Resource Recovery Act 2001 (WARR Act)
Standards	AS2601:1991 Demolition of Structures AS 4361.2 2017 Part 2: Lead Paint Management in residential, public and commercial buildings
Guidelines and Specifications	Best Practice Waste Reduction Guidelines for the Construction and Demolition Industry (Tools for Practice), Natural Heritage Trust, 2000 Waste Classification Guidelines, EPA Publication, 2014 National Environmental Protection (Assessment of Site Contamination) Measure, 1999 (NEPM) Waste Avoidance and Resources Recovery Strategy, DECC, 2007 (WARR Act) Addendum to the Waste Classification Guidelines – Part 1: Classifying Waste, EPA 2016

4.1.1 New South Wales Waste Strategy

The NSW Waste Avoidance and Recovery Strategy defines a hierarchy aimed at minimising the impact of waste disposal including that of Spoil and promoting efficient resource use. GALC will incorporate these objectives in the management of spoil associated with the Project. The hierarchy is shown below in Figure 2. Section 7 outlines GALCs approach to prioritising avoidance and reduction and the reuse of spoil as shown in the top two levels of the hierarchy.

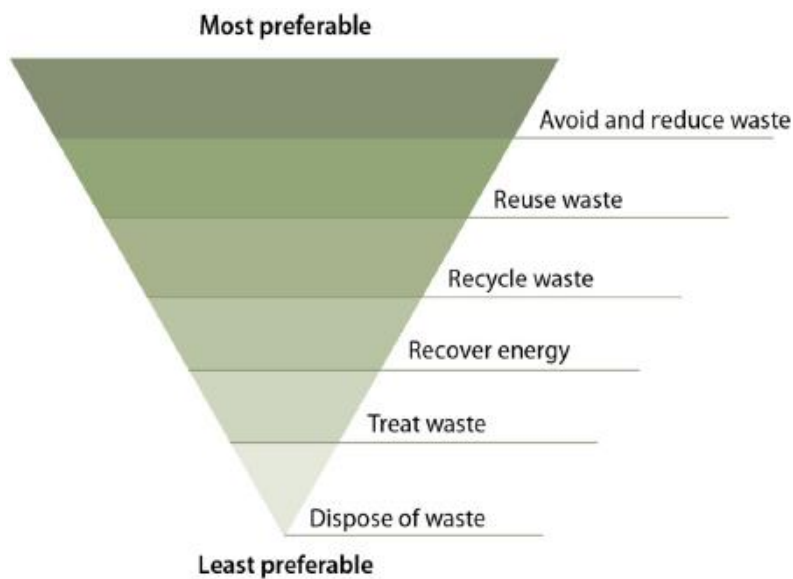


Figure 2 Waste Hierarchy

4.2 Approvals, Licenses and Permits

This SPMP has been developed to satisfy the requirements of MCoA C1. A full list of applicable MCoAs, REMMs, CEMF requirements and EPL condition requirements is provided in Attachment 1.

Other legislation relevant to this SPMP is included in Attachment 2 of the CEMP.

4.3 IS Rating Tools Requirements

This SPMP shows how we will achieve the following ISv1.2 credits in Table 5.

Table 5 IS rating tool requirements applicable to spoil management

ID	IS Rating Tool Requirement	Document Reference
Was-1 L1	<ul style="list-style-type: none"> Predictions for waste quantities and types have been developed for construction and operation Measures to minimise waste during construction and operation have been identified and implemented Monitoring of all wastes is undertaken during construction 	Section 5.2 Section 7.1
Was-1 L2	<ul style="list-style-type: none"> Requirements for L1 are achieved. Waste monitoring and management has been managed, reviewed or audited by a suitably qualified professional. Waste handling and disposal/recycling all the way to final destination has been audited at appropriate intervals 	Section 8.4
Was-2 L1	<ul style="list-style-type: none"> 70 to <80% of spoil volume diverted 25 to <50% of volume of inert and non-hazardous waste diverted 25 to <40% by volume of office waste material diverted 	Section 8.3
Was-2 L2	<ul style="list-style-type: none"> 80 to <100% of spoil volume diverted 	Section 8.3

ID	IS Rating Tool Requirement	Document Reference
	<ul style="list-style-type: none"> ● 50 to 90% of by volume of inert and non-hazardous waste diverted ● 40 to 60% by volume of office waste material diverted 	
Was-2 L3	<ul style="list-style-type: none"> ● 100% by volume of spoil diverted ● >90% by volume of inert and non-hazardous waste diverted ● >60% by volume of office waste material diverted 	Section 8.3

5 EXISTING ENVIRONMENT

The currently known spoil and waste associated with the Project have been provided in the Sydney Metro West Stage 1 EIS (Chapter 24), and geotechnical and contamination assessments within relevant Addendums.

Whilst final assessments of the known contaminants cannot occur until the Detailed Site Investigation (DSI) works are completed the sections below provide further information on what is typically expected to be encountered.

5.1 Classification

All spoil that requires offsite reuse or disposal will be classified in accordance with the Waste Classification Guidelines: Part 1 Classifying Waste (NSW EPA 2014). Classification of all spoil material generated for the Project will be carried out in accordance with the Waste Management Sub-plan.

Sampling, Analysis and Quality Plans (SAQPs) have been developed for the DSI of all sites during tender phase. The DSI will be undertaken prior to commencement of any construction that would result in the disturbance of moderate to high risk contaminated sites. Sampling will be conducted to determine the full nature and extent of the contamination including where there is risk for potential migration of contaminated groundwater, ground gas, vapour, and odour. Sampling and testing will be undertaken in accordance with section 105 of *Contaminated Land Management Act 1997* (NSW), which will be summarised in a validation report. The validation report will be approved by an EPA-accredited Site Auditor.

In instances where material is designated for offsite reuse or disposal, in-situ waste classification will be utilised as often as practicable to help minimise the need for stockpiling of materials. This form of classification aides in limiting the disturbance and potential exposure to contaminants where sensitive receivers and human health factors could be impacted.

Where remediation is required to make land suitable for the final intended land use, a Remedial Action Plan (RAP) will be prepared and approved by appropriately certified consultants. The process for developing a RAP is detailed in the Soil and Water Management Sub-plan.

Before commencing remediation, a Section B Site Audit Statement(s) will be prepared by an NSW EPA-accredited Site Auditor and approved that the RAPs are appropriate and that the site can be made suitable for the proposed use. Validation report(s) will be prepared in accordance with Consultants Reporting on Contaminated Land: Contaminated Land Guidelines (EPA, 2020) and relevant guidelines made or approved under section 105 of the Contaminated Land Management Act 1997 (NSW). A Section A1 or Section A2 Site Audit Statement and Site Audit Report, which state that the contaminated land disturbed by the work has been made suitable for the intended land use, will be submitted to the Planning Secretary and the Local Councils after remediation and before the commencement of operation of the Project. A copy of DSI, RAPs, validation reports, Site Audit Reports and Site Audit Statement(s) must be submitted to the Planning Secretary, and Local Councils for information.

An Unexpected Finds Procedure will be implemented to manage unexpected contamination, soil discoloration, offensive odours, buried waste or Asbestos Containing Material (ACM), refer to Attachment 5 of the Soil and Water Management Sub-plan. Training in the Unexpected Finds Procedure will be provided to all workforce and staff involved in excavation.

5.1.1 Virgin Excavated Natural Material

Under Schedule 1 of the POEO Act, VENM is naturally occurring material like clay, sand, rock or soil where it has been excavated or quarried from areas that are not contaminated with manufactured chemicals, or with process residues, as a result of industrial, commercial, mining or agricultural activities. This material does not contain sulfidic ores or soils or any other waste.

Most of the tunnel spoil is expected to be classified as VENM, box excavations below rock are also expected to be classified as VENM.

5.1.2 Excavated Natural Material

Should spoil not meet the VENM criteria, the material will be tested to determine if it can be classed as ENM. ENM under the POEO Act is defined as material that has been excavated from the ground, contains at least 98% natural material by weight and does not meet the definition of VENM.

ENM does not include material that has been processed or contains acid sulphate soils or potential acid sulphate soils. Parts of the box excavations as well as some minor areas within the Dive area at the Clyde MSF may meet ENM criteria.

5.1.3 Other Classifications

Any spoil that is not classified as either VENM or ENM may be classed as General Solid Waste (GSW), Restricted Waste, Special Waste or Hazardous Waste. Refer to the Waste Management Sub-plan for the process for classifying waste and spoil.

Currently, no wastes have been pre-classified by the EPA as 'restricted solid waste'. Therefore, the spoil needs to be chemically assessed to determine whether it is Restricted Waste.

Special Waste has unique regulatory requirements because of the potential harm to the environment and human health. Special Waste has been pre-classified by the EPA and includes clinical and related waste, asbestos, waste tyres and anything classified as a special waste under an EPA gazettal notice.

Like Special Waste, Hazardous Waste has been pre-classified by the EPA and is waste other than special or liquid waste with the following characteristics:

- Containers, having previously contained a substance of Class 1, 3, 4, 5 or 8 within the meaning of the Transport of Dangerous Goods Code, or a substance to which Division 6.1 of the Transport of Dangerous Goods Code applies, from which residues have not been removed by washing or vacuuming.
- Coal tar or coal tar pitch waste comprising of more than 1% by weight of coal tar or coal tar pitch waste
- Lead-acid or nickel-cadmium batteries
- Lead paint waste
- Any mixture of the wastes referred above.

General Solid Waste (non-putrescible) is any wastes not classified as special, liquid, hazardous, restricted, or general solid waste (putrescible) and includes ASS.

It is expected that the Clyde MSF will produce all these waste types, therefore the management of any contaminated spoil will be in accordance with the relevant RAP, Soil and Water Management

Sub-plan and Waste Management Sub-plan. Classification of demolition waste is also discussed in the Waste Management Sub-plan.

The findings of the DSI will determine the process for identifying and classifying recyclable GSW (GSW-R). Refer to Section 7.4 for more detail regarding recycling of GSW.

5.2 Anticipated Spoil Volume

The Project works will generate a total cut volume of approximately 1.38 million m³ of spoil within the tunnel and seven sites located along the Project alignment. Of that, approximately 578,400 m³ can be retained within the Clyde MSF as part of the bulk fill works. This results in balance of approximately 804,300 m³ that will need to be taken offsite. While accurate quantification of material classification can only occur post the DSI phase, conservative estimates indicate 218,180 m³ is expected to be non-VENM or ENM.

Project Site	VENM/ENM (m ³)	Non-VENM/ENM (m ³)
Sydney Olympic Park (SOP)	0	0
Clyde Stabling and Maintenance Facility	Rosehill	56,780
	Clyde MSF	111,822
	Dive & Spur Lines at Clyde MSF	33,630
Parramatta	144,988	7,310
Westmead	202,756	8,005
Tunnel (Westmead to SOP)	642,566	637
Total	1,164,524	218,184

6 ASPECTS AND IMPACTS

6.1 Construction Activities

The Project will involve a range of construction activities incorporating various heavy machinery, plant and equipment that will operate in several locations. To assess the level of potential spoil-related impact, the broad categories of construction activity likely to have an impact are identified below in Table 6.

Table 6 Construction Activities Generating Spoil

Construction Activity	Description
Site Establishment	<p>This involves demolition of existing buildings, vegetation clearing, erection of hoarding and relocation, adjustment and protection of utilities and compound establishment.</p> <p>Waste generated from this activity would include demolition waste, green waste and spoil from compound establishment works.</p>
Piling	<p>Piling is required for foundations of structures and as perimeter linings of box excavations. Bored piling will be used rather than impact piling. A minor volume of spoil material would be generated from this activity.</p>
Surface Construction	<p>Civil works and surface structures include roads, bulk filling, hardstand areas, water treatment facilities and site offices.</p>
Tunnelling/Excavation	<p>Mainline tunnelling, boxes, cross passages, nozzles, and shafts. Spoil will be removed from Project Sites by trucks sized appropriately in consideration of traffic route, receipt site, material type and site access restrictions.</p>
Spoil & Material Transport	<p>Spoil will be transported from Project Sites by licenced contractors, to licensed facilities or other sites lawfully able to accept spoil. Spoil will only be transported during CoA operating hours.</p>
Construction of Realigned Creeks	<p>This involves realignment of Duck Creek / A'Beckett Creek at Clyde MSF. A minor volume of spoil material would be generated from this activity.</p>

6.2 Impacts

The excavation and handling of spoil provides opportunities for environmental risks associated with contamination, waste and soil and water impacts. Aspects and the potential for impacts related to these issues have been considered in a risk assessment in Attachment 4 of the CEMP and include:

- Unlawful disposal of spoil

- Erosion and sedimentation
- Contamination and cross-contamination
- Noise and vibration from haulage
- Failure to identify reuse opportunities
- Failure to identify spoil reduction opportunities
- Traffic impacts from spoil haulage.

Potential spoil management impacts specific to each construction site are described in Table 7.

Table 7: Summary of potential impacts within the Project construction sites

Location	Potential Impacts
Sydney Olympic Park Metro Station	<ul style="list-style-type: none"> ● Improper management of contaminated spoil ● Dust dispersion from improper stockpiling management ● Incorrect disposal of spoil
Clyde MSF	<ul style="list-style-type: none"> ● Improper management of contaminated spoil ● Dust dispersion from improper stockpiling management ● Contaminated spoil dispersion into nearby waterways ● Incorrect disposal of spoil
Parramatta Metro Station	<ul style="list-style-type: none"> ● Improper management of contaminated spoil ● Traffic impacts from spoil haulage ● Dust dispersion from improper stockpiling management ● Noise and vibration impacts from spoil haulage ● Incorrect disposal of spoil
Westmead Metro Station	<ul style="list-style-type: none"> ● Improper management of contaminated spoil ● Traffic impacts from spoil haulage ● Visual amenity impacts from spoil stockpiling ● Dust dispersion from improper stockpiling management ● Noise and vibration impacts from spoil haulage ● Incorrect disposal of spoil

Section 7.1 outlines the mitigation and management measures to be implemented to avoid or minimise potential impacts as a result of spoil management during construction of the Project.

7 ENVIRONMENTAL MITIGATION AND MANAGEMENT MEASURES

Measures to manage spoil and reduce the risk of impacts will be implemented throughout the Project.

7.1 Standard Mitigation and Management Measures

Specific measures and requirements to meet the objectives of this Plan and to address spoil management-related impacts are outlined in Table 8. These measures have been developed in line with the requirements in the EIS and Amendment Report. As a minimum, the following will be incorporated at each construction site and documented on the Environmental Controls Map in Attachment 8 of the CEMP, where applicable.

Table 8: Environmental Mitigation and Management Measures

Item	Mitigation and Management Measure and Project site requirements	Responsibility	Timing	Reference
SEA – Senior Environmental Advisor, EA – Environmental Advisor, CM – Construction Manager, SS – Site Supervisor, Traffic Manager – TM, SM - Spoil Manager				
1.	All staff and Subcontractors will participate in a Project induction and ongoing toolbox talks that will describe waste minimisation and reuse management measures, including the requirements of the waste management hierarchy	EA	Pre-construction/ construction	Best Practice
2.	Specific training packages will be developed to address key personnel responsibilities associated with the management of spoil and waste. For example, the selection and approval of offsite reuse facilities, and truck driver training.	SEA/SM	Pre-construction/ construction	Best Practice
3.	Spoil management measures from this plan will be included in a relevant RAP (refer to the Soil and Water Management Sub-plan), which will be developed prior to the commencement of specific activities where there is a residual high risk.	SEA	Pre-construction/ construction	Best Practice
4.	Detailed construction design will be reviewed to minimise waste generation, for example, the reduction of bulk excavation footprints to reduce solid waste, including the reduction in generation of contaminated materials	SM/SEA/CM	Pre-construction	MCoA D111 CEMF 6.1(a) i.
5.	Forecast spoil generation quantities will be included in detailed construction design. Spoil generation quantities will assist the Project Managers to plan spoil segregation, spoil removal, reuse, and disposal.	SM/SEA/CM	Detailed Design	Best Practice
6.	Site-specific Sampling Analysis Quality Plans (SAQPs) will be developed for each surface excavation Project site to inform In-Situ waste classification in accordance with the NSW EPA Waste Classification Guidelines.	SEA/CM	Pre-construction	MCoA D114 REMM WR2

Item	Mitigation and Management Measure and Project site requirements	Responsibility	Timing	Reference
SEA – Senior Environmental Advisor, EA – Environmental Advisor, CM – Construction Manager, SS – Site Supervisor, Traffic Manager – TM, SM - Spoil Manager				
	Hazardous materials surveys will be completed for buildings and structures suspected of containing hazardous or special waste materials prior to their demolition.			
7.	<p>In-situ waste classifications will be completed for soils to be excavated for surface works and dive structures. As required, volumetric models will be created to inform excavation planning.</p> <p>The Sampling, Analysis and Quality Plans from the DSI will determine the process for in-situ waste classification, including sampling density, frequency, testing procedure etc.</p> <p>Where required, additional waste classification will be carried out during excavation to assist in in-situ classification verifications and waste segregation and reuse or disposal requirements.</p>	SEA/SM	Pre-construction	MCoA D114
8.	Detailed excavation planning will be completed for applicable Project Sites following in-situ waste classification. This planning will allow targeted removal of contamination based on location and exposure risk, e.g., removal of hotspots to reduce risk of cross contamination.	SEA/CM/SM	Construction	MCoA D111 REMM WR2, WR4 CEMF 6.1(a)vi.
9.	<p>Material encountered during excavation that is inconsistent with the In-situ waste classification will be segregated and stored with adequate environmental controls until the waste classification is completed.</p> <p>The 'Unexpected Contamination Protocol' contained within the Soil and Water Management Plan will be implemented.</p>	CM/SS/EA	Construction	REMM WR4

Item	Mitigation and Management Measure and Project site requirements	Responsibility	Timing	Reference
SEA – Senior Environmental Advisor, EA – Environmental Advisor, CM – Construction Manager, SS – Site Supervisor, Traffic Manager – TM, SM - Spoil Manager				
10.	All other wastes generated outside the In-situ waste classifications will be classified in accordance with the NSW EPA Waste Classification Guidelines.	SS/EA	Construction	MCoA D114 REMM WR1
11.	Spoil generated on-site, that requires storage prior to disposal, will be segregated by type and the appropriate environmental controls implemented, as required by the Soil and Water Management Plan. Stockpiles will be managed to avoid any contamination of land and adjacent waterways.	SS/EA	Construction	REMM WR4 CEMF 6.1(a)iv
12.	All-weather receiving facilities will be prioritised as spoil disposal locations to minimise wet weather delays when removing spoil off-site. This will also reduce the need to stockpile spoil on-site.	SM/SEA/CM	Construction	Best Practice
13.	100% of usable spoil will be reused or recycled (both onsite and off-site). Where necessary the off-site reuse of spoil will be in accordance with either existing, or Project specific resource recovery exemptions/orders.	SS/CM/EA	Construction	MCoA D111 CEMF 6.1(a)ii
14.	The reuse and recycling of materials generated on the Project, where suitable, will be prioritised over disposal at landfill facilities.	SS/CM/EA	Construction	MCoA D111
15.	Waste and spoil will be transported by reputable transport companies, and where required will be suitably licenced for transporting certain types of waste material.	CM/SM/TM	Construction	NSW Legislation
16.	Waste transport vehicles will be fitted with GPS tracking systems.	CM/SS/SM	Construction	MCoA D83 MCoA D90(e) REMM WR5

Item	Mitigation and Management Measure and Project site requirements	Responsibility	Timing	Reference
SEA – Senior Environmental Advisor, EA – Environmental Advisor, CM – Construction Manager, SS – Site Supervisor, Traffic Manager – TM, SM - Spoil Manager				
	The locations of all construction spoil haulage vehicles will be monitored in real time via GALC GPS tracking. GPS records will be made available to the EPA and the DPE upon request			
17.	100% of Project spoil will be tracked using a waste tracking registers.	EA/SS/SM	Construction	REMM WR5 CEMF 6.2(b)
18.	A spoil disposal permit system will be implemented for the authorisation of spoil and or waste to be disposed of off-site at licensed facilities or to any other place that can lawfully accept such waste.	EA/CM/SM	Construction	MCoA D113
19.	Spoil transport will be completed via approved haul routes only. The use of approved haul routes will be included in haulage contractor subcontracts. Compliance with these requirements will be monitored through the GPS tracking system.	TM/SM	Construction	MCoA D90 (e)
20.	All Heavy Vehicles used for spoil haulage must be clearly marked on the sides and rear with the project name and application number to enable immediate identification by a person viewing the Heavy Vehicle standing 20 metres away.	SS/EA	Construction	MCoA A47
21.	Compliance with the requirements of this SPMP will be included in weekly environmental inspections.	EA/SEA	Construction	CEMF 6.2(b)
22.	The potential impacts from spoil storage and haulage would be managed using the following approaches, where feasible and reasonable: <ul style="list-style-type: none"> On-site spoil storage capacity would be maximised to reduce the need for truck movements during sensitive times, unless the spoil is contaminated Vehicle movements would be redirected away from sensitive receiver areas and scheduled during less sensitive times 	CM/SM/SS/EA /TM	Construction	REMM NV14

Item	Mitigation and Management Measure and Project site requirements	Responsibility	Timing	Reference
SEA – Senior Environmental Advisor, EA – Environmental Advisor, CM – Construction Manager, SS – Site Supervisor, Traffic Manager – TM, SM - Spoil Manager				
	<ul style="list-style-type: none"> The speed of vehicles would be limited and the use of engine compression brakes would be avoided Heavy vehicles would not be permitted to idle near sensitive receivers. 			
23.	Opportunities to maximise spoil material removal by non-road methods will be investigated during detailed construction planning. This may include transportation by freight trains or cargo ships through the Parramatta River.	CM/SEA	Pre-construction	MCoA D99
24.	Detailed Site Investigations (DSI) will be undertaken to identify the nature of contamination at moderate to high risk contaminated sites, to minimise the mixing of waste streams through waste segregation practices. Following this DSI, detailed construction planning will investigate opportunities to minimise the excavation footprint and reduce the volume of contaminated spoil generated.	CM/SEA	Pre-construction	Best practice
25.	Management of contaminated spoil will be undertaken in accordance with the relevant RAP.	CM/SEA/SM	Construction	Best practice

7.2 Spoil Reuse

As discussed in Section 4.1.1, GALC will adopt the objectives of the NSW Waste Avoidance and Recovery Strategy to minimise waste disposal. As a priority, the preferred method will be to 'Avoid and Reduce' waste. This will be regularly assessed throughout the detailed construction planning of the Project. As detailed construction planning progresses, assessments will be undertaken as to the suitability of design parameters and impact upon reuse of spoil. Instances where these parameters clash with reuse objectives will subsequently be flagged for resolution. A similar process will be adopted for the RAP development.

Additionally, GALC will continue to examine opportunities to reuse spoil during construction of the Project. Firstly onsite, within the Project footprint. Secondly, offsite through the pursuit of new Resource Recovery Orders and/or Exemptions, notably for tunnel spoil. This is detailed further in Sections 7.4 and 7.5.

7.3 Spoil Stockpiling

Each site along the Project alignment has been designed to accommodate short term stockpiling of spoil. Sites that are space restricted such as Westmead, Parramatta and the Dive structure at Clyde MSF, are particularly challenging as space also needs to be available for entry/exit points, internal haul roads and site amenities. Emphasis was placed on establishing sites that facilitated the efficient loading and transportation of spoil as well as providing sufficient space to safely store and segregate. These restricted sites can easily become spoil bound and therefore regular removal via Truck & Dog is key. Should delays occur, the Clyde MSF will act as a contingency for short-term stockpiling.

Stockpiles will be managed in accordance with the Soil and Water Management Sub-plan and will be designed in such a manner as to maximise space, create contingency for weekend, public holidays, special events and wet weather days. Erosion and Sediment Control Plans will be prepared and implemented in advance of works. The following general principles will also be adopted:

- All stockpiles will be managed in accordance with Managing Urban Stormwater: Soils and construction (Landcom, 2004; "the Blue Book")
- Differing material types will be segregated and identified with signage to avoid cross contamination
- Erosion and sediment controls will be established between site and drainage lines or down slope areas
- Positioned to minimise visual light spill, noise and vibration impacts to sensitive receivers
- Located in areas that do not impact heritage sites beyond those already impacted
- Not unreasonably affect the land use of adjacent properties.

Contaminated spoil stockpiles will be appropriately banded to minimise the risk of dispersion into nearby waterways during high rainfall events.

7.3.1 Spoil and Other Non-contaminated Stockpiles

The following principals will be adopted for VENM & ENM stockpiles.

Dust odour, erosion and sediment controls will be in place and maintained, including:

- The use of spoil sheds or screens in areas close to buildings or in densely populated areas
- Diversion drains

- Silt barriers
- Dust suppression devices
- Batter slopes to prevent collapse or sliding of material
- Provide sufficient area such that, to the greatest extent practical, deliveries outside of construction hours will be minimised
- Certified designs where deemed appropriate.

During special events at nearby sensitive receivers, including at the Rosehill Gardens Racecourse, consultation will be undertaken with the affected sensitive receiver to manage dust impacts from Project construction works.

7.3.2 Contaminated Stockpiles

Contaminated stockpiles are anticipated to be generated for most of the Project construction sites. These materials will be classified once the DSI phase has been completed which will also aid in the development of the relevant RAPs. Guidelines for contaminated spoil stockpiles include:

- Hazard and risk mitigation measures to be implemented, including specific controls on toxic finds, such as the management of hazards with asbestos impacted soils or odorous spoil.
- Where asbestos is identified, a Class A Licenced asbestos removalist contractor, occupational hygienist and air monitoring program will be engaged to manage works in accordance with the Asbestos Management Plan
- Measures for spoil segregation, temporary stockpiling, and containment
- Controlling run-off with bund, fill shaping as well as separate “clean” water & “dirty” water diversions
- Temporary sediment basins
- Potential for remediation treatment and/or off-site reuse at the licenced disposal facilities
- Testing and approval requirements
- Monitoring, auditing, and reporting requirements.

In-situ waste classification will be utilised as often as practicable to help minimise the need for stockpiling of contaminated materials. Contaminated stockpiles will be managed to minimise the dispersion of contaminated material, through:

- Bunding of contaminated stockpile areas to prevent dispersion into waterways
- Covering stockpiles to minimise dust dispersion from wind
- Stockpiles will be located away from environmentally sensitive receivers.

7.4 Onsite Reuse and Retention Opportunities

There is opportunity to reuse substantial amounts of non-VENM or ENM spoil within the fill formation in accordance with the RAP, with Clyde MSF having the capacity to utilise 578,400 m³ of material.

While not all non-VENM or ENM will be suitable for retention, the lower and upper general fill zones are the most likely locations where reuse of spoil addressed by the RAP can be achieved. Subject to Sydney Metro’s approval, GALC considers that the existing MCoA (D111& D112) and standard EPL conditions provide the opportunity to pursue this strategy.

Additionally, shale and sandstone material (which is likely to be classified as VENM or ENM) generated from the excavation of the tunnel, boxes, caverns, and shafts is likely to be well suited for

the use in the formation fill. The geotechnical properties of the of the Structural fill zones will predominately determine what type of spoil is suitable for reuse, with sandstone material identified as likely being suitable for use. Non-VENM/ENM spoil is not suitable for reuse within Structural zones. Sites like Westmead, Parramatta, Rosehill, and Spur tunnels would be able to supplement the spoil generated by the TBM for use within the bulk fill works.

GALC will seek a project specific RRO and RRE for the Project tunnel spoil to ensure the material is suitable for reuse onsite. RRE/RRO applications are likely to be commenced in April 2022, with submission to the EPA for assessment in late April/early May.

7.5 Offsite Reuse Opportunities

Onsite reuse of spoil will be prioritised where possible. However, as the Project has a balance cut to fill of approximately 864,800 m³, there will be a need to remove spoil offsite. In these instances, the priority will again be given to maximising the reuse of spoil at receival sites. Development projects provide a great opportunity for this to occur. Receival sites for spoil generated by the Project will be selected based on proximity to the construction site, where appropriate, to reduce the potential environmental impacts associated with the transport of spoil.

In addition, GALC will take advantage of existing Waste Recovery Orders and Exemptions/Orders to further avoid otherwise unsuitable spoil from being disposed of at landfill sites. Some examples of existing RROs are:

- Excavated natural material (ENM)
- Excavated public road material (EPRM)
- Reclaimed asphalt pavement.

GALC will seek a project specific RRO and RRE for the Project tunnel spoil to ensure the material can be reused in development sites despite being excavated from zones where there is an increased risk of contamination. The added benefit of this strategy means the spoil does not typically need to be segregated. Compliance testing will be completed in accordance with the RRO approval to ensure contamination levels remain within the approved levels. Subject to confirmation from the EPA and findings from the DSI, GALC will also pursue new RROs for PASS material to further optimise beneficial reuse.

RRE/RRO applications are likely to be commenced in April 2022, with submission to the EPA for assessment in late April/early May.

Several development sites are already identified as being well suited to receive large quantities of reusable spoil. Sites such as Austral Bricks Horsley Park, CSR Badgerys Creek, MIRVAC Kemps Creek and Penrith Lakes are capable of reusing tunnel and VENM/ENM spoil including spoil that may be classified under an RRO or RRE. GALC will engage with spoil haulage service providers to identify appropriate reuse locations. The timing and magnitude of spoil generation is illustrated in Attachment 5.

Once the characteristics of GSW is identified from the DSI works, opportunities will be investigated for recycling of spoil that is classified as GSW. Several approved licenced facilities will be identified for reuse of GSW-R at specific receiving sites with acceptable Specific Contaminant Concentration (SCC) and Toxicity Characteristic Leaching Procedure (TCLP) results. Samples of spoil will be sent for inspection to determine which receival sites can accept the spoil as GSW-R. This option will be pursued, when possible, to divert waste from landfill. Sites such as Met Recycling and Aussie Skips have the capability to recycle GSW spoil. GALC will continue to work with market leaders within the waste recovery industry to identify and realise opportunities.

7.6 Disposal of Unusable Spoil

In instances where spoil cannot be beneficially reused either onsite or offsite it will be disposed at licensed facilities. Material types disposed would generally include General Solid Waste (Putrescible and Non-Putrescible), Restricted Solid Waste (RSW), Hazardous Solid Waste (HSW), and Special Waste.

Contaminated spoil of various classifications and in varying quantities are expected to be excavated from all project sites and contaminated spoil will be identified as per the process in Section 5.1.

Primary, secondary, and tertiary disposal sites have been identified for each classification of spoil to be disposed, based on tender stage negotiations. Attachment 3 provides further detail on spoil receival sites likely to be utilised.

Spoil will 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 RRE/RRO. Appropriate records and disposal dockets will be retained for audit purposes.

7.7 Offsite Material Movement

Material transport will be undertaken in accordance with the relevant Project Requirements. A Chain of Responsibility (CoR) Management Plan and Heavy Vehicle National Law will govern material transport for the Project. Spoil haulage vehicles will utilise designated haulage routes outlined in the EIS or approved in accordance with MCoA D86.

Haulage of spoil may be undertaken outside the following standard hours:

- 7:00am to 6:00pm Mondays to Fridays, inclusive
- 8:00am to 6:00pm Saturdays
- At no time on Sundays or public holidays.

When travelling to and from the Westmead construction site using any roads or streets other than directly from Parramatta Road, no haulage of spoil will be undertaken between 10:00pm and 7:00am.

Site access/egress points, where haulage vehicles are moving in and out of site, will be managed (either manned or signalised) to ensure no pedestrians or cyclists are at risk. GALC will design and implement any Local Area Works (LAW's) required to safely facilitate the access and transiting of Heavy Vehicles. The Traffic Manager will advise the project team when road closures or other traffic arrangements are in place. In the event mud tracking or excessive dust on the road surfaces tracked by vehicles leaving site is identified, cleaning will be undertaken as required, typically via a street sweeper.

The primary egress routes for spoil haulage trucks will consider special events and cumulative impacts from external projects in the surrounding area to minimise traffic related impacts. The primary egress routes at Sydney Olympic Park Metro Station construction site will be determined in consultation with SOPA.

All Project haulage vehicles will be inspected to ensure items such as registration, emissions control, general condition, hydraulics, brakes, TARE weights, axel scales and UHF radios are in good working order. Additionally, in accordance with the requirements identified in the Noise and Vibration Management Sub-plan, the haulage vehicles will be fitted with residential grade mufflers, air brake silencers and non-tonal reversing alarms, which will be inspected upon entering the construction site for the first time. In accordance with MCoA 47, all spoil haulage vehicles will be clearly marked with

Sydney Metro West labelling and the Project number (SSI 10038). This will enable immediate identification by a person viewing the Heavy Vehicle standing 20 metres away.

All spoil to be moved offsite will be accompanied by a Waste Classification report produced by a National Association of Testing Authorities accredited laboratory.

The daily ordering system will facilitate booking trucks, receival sites, quantities and nominated haulage routes. Data from this will inform the project waste tracking register. The waste tracking register includes both waste disposal, as specified in the Waste Management Sub-plan, and spoil disposal, as identified in this sub-plan. The waste tracking register will be used for all spoil haulage transferred between construction sites and to offsite licensed facilities.

At the point of loading, a digital load measuring system, such as Loadrite, will be used to track the weight, number of loads, material type and source location of the spoil. Large visible graphics on each truck will be in place to show the maximum allowed load in each bin and a unique ID, both of which will be input into the Loadrite (or similar) system. The data will be downloadable and be incorporated into the waste tracking register, which allows each load spoil to be traced to a specific truck. Weighbridges will be used to frequently audit loads to ensure compliance to the nominated Axle and General Vehicle Maintenance requirements.

GPS systems such as Navman Teletrac will be used to track, monitor, and log trucks in real time. Compliance to receival sites, haulage routes, speed and driver fatigue metrics will be tracked and logged to demonstrate compliance with CoR regulations and MCoA 83. Additionally, WasteLocate, an NSW EPA system, will be used to track all loads of asbestos waste and asbestos soils. Again, these metrics will be incorporated into the waste tracking register daily by the logistics team to ensure a whole of life account of spoil is documented, verifiable and auditable.

The Site Supervisor, Senior Environmental Advisor and Spoil Manager will ensure that periodic monitoring and reporting is undertaken to:

- Identify the quantity and classification of material beneficially reused and disposed of at each licenced facility
- Identify and rectify any CoR issues
- Detail progress against environmental and sustainability targets.

The Site Supervisor and Spoil Manager will also ensure that any records required as part of the overall CoR responsibilities are maintained. The GALC Project Team will ensure compliance with all spoil management requirements through the training of all on-site personnel, delivery management, effective implementation of Waste Tracking Systems, and routine auditing.

7.7.1 Waste Disposal Permit

In cases where material is to be reused and/or disposed offsite, GALC will prepare and approve a Waste Disposal Permit to outline waste classification, receival sites, planning approval and licensing. This will include reviewing as capacity, licencing, contamination limits and operating hours.

In addition to this, a notice under Section 143 will be completed by the relevant landowner certifying a receival site can lawfully receive the nominated material.

Unlicensed facilities receiving waste spoil under a current RRE must demonstrate the legality of the use of the material prior to receiving the material.

8 COMPLIANCE MANAGEMENT

8.1 Roles and Responsibilities

The GALC Project Team’s organisational structure and overall roles and responsibilities are outlined in Section 7 of the CEMP. Specific responsibilities for the implementation of environmental controls are detailed in Table 9 of this Plan.

Key roles with regards to the management of spoil are identified in Table 9.

Table 9: Roles and responsibilities

Role	Authority and Responsibility
Environmental Manager	<ul style="list-style-type: none"> Develop and implement the SPMP Oversee all required activities outlined in Section 7.0 and in accordance with this sub-plan Oversee compliance tracking and reporting Oversee the keeping of all environmental records Engage suitably qualified consultants to support implementation of this sub-plan In consultation with the Project Director and Site Supervisor, oversee the investigation and reporting of environmental incidents Regularly engage with the key stakeholders and other interface contractors to achieve environmental alignment. Responsible for management of system documents and for auditing site activities against this procedure
Sustainability Manager	<ul style="list-style-type: none"> Oversee the collection and retention of waste and spoil tracking records Regularly interface with the project team to ensure project sustainability targets are being met, and to identify potential opportunities for innovation Complete sustainability reporting including progress against waste tracking and spoil diversion targets
Senior Environmental Advisor	<ul style="list-style-type: none"> Have a responsibility to comply with the requirements of this SPMP and to manage their works accordingly. Personnel responsible for undertaking specific management actions as specified in Section 7.1. Complete inspections and monitoring. Complete reporting (refer to Section 8.3) Prepare ECMs to outline the controls in this sub-plan relevant to each work activity Respond to inquiries raised by the ER or Sydney Metro representatives Attend inspections with the ER, Sydney Metro, or other stakeholders

Role	Authority and Responsibility
Environmental Advisor	<ul style="list-style-type: none"> ● Respond to environmental incidents and non-conformances ● Delivery of toolbox / prestart presentation (or other specific training) to inform work crews of the controls documented in the ECMs ● Perform regular on-site liaison and inspections ● Provide environmental advice and assistance to construction personnel ● Manage implementation of SPMP ● Respond to environmental incidents and non-conformances
Site Auditor	<ul style="list-style-type: none"> ● NSW EPA Accredited ● Reviews and approves validation reports ● Prepares and issues Site Auditor Statements and Site Audit Reports ● Undertakes Site Auditor Inspections to ensure compliance with RAPs
Spoil Manager	<ul style="list-style-type: none"> ● Ensures that the spoil management measures outlined in the Spoil Management Plan are effectively implemented and maintained ● Ensures compliance with all relevant statutes, regulations, rules, procedures, standards and policies of the Spoil Management Plan ● Ensures that environmental records and files are collected and maintained ● Ensures that spoil being transported offsite is tracked in accordance with the Spoil Management Plan ● Regularly monitor the management of spoil in accordance with the Spoil Management Plan.
Traffic Manager	<ul style="list-style-type: none"> ● Responsible for the implementation of traffic controls and designated haulage routes ● Carry out regular inspections of traffic management measures to ensure they are effectively minimising impacts to traffic ● Respond to traffic related incidents and non-conformances
Construction Manager	<ul style="list-style-type: none"> ● Ensures compliance with this SPMP, procedures and ECMs ● Work collaboratively with environment teams to ensure the mitigation and management measures in this SPMP are integrated into construction works ● Ensure that spoil management impacts are always considered in forward planning and scheduling
Site Supervisor	<ul style="list-style-type: none"> ● Install and maintain environmental controls in accordance with ESCPs and ECMs, including clear delineation of site boundaries and protection of No-Go Zones ● Attend inspections with the ER, Sydney Metro, or other stakeholders

Role	Authority and Responsibility
	<ul style="list-style-type: none"> ● Implement corrective actions raised during environmental inspections in agreed timeframes ● Notify the Environmental Representative of any observed impacts related to spoil management
All personnel	<ul style="list-style-type: none"> ● Notify Site Supervisor of any observed impacts related to spoil management.

8.2 Training

The general project induction will include a component on spoil management to ensure that personnel understand the potential impacts from construction and the proposed mitigation measures.

The site induction training will address elements related to spoil management including:

- Existence and requirements of this SPMP
- Site layout
- Stockpile management
- Spoil management
- Dust suppression management
- The location of potentially sensitive receivers
- Designated haulage routes
- Details of the complaints handling procedure
- Details of the environmental incident procedures
- Relevant legislation
- Roles and responsibilities for spoil management.

Targeted training in the form of toolbox talks or tailored training sessions will also be provided to personnel with a key role in spoil management. Specific mitigation and management measures discussed during training sessions may include:

- Obligations and specific responsibilities under the Project MCoA, including site layout (location of construction elements and stockpiles)
- Identifying designated haulage routes away from sensitive receivers
- Contaminated spoil management
- Ensuring stockpiles and storage areas are covered and/ or located away from sensitive receivers.

Heavy vehicle operators that are hauling spoil offsite will receive specific training to minimise the risk of traffic related incidents and complaints received by the local community. This training will include a dedicated heavy vehicle induction that identifies designated haulage routes, as well as heavy vehicle and spoil haulage management measures to comply with as outlined in Section 7.1.

Specific training will be provided to personnel likely to work within or in proximity (<50 m) to sensitive receivers. Where required, toolbox /pre-start talks will also include dust suppression methods for spoil stockpiling.

Further details regarding inductions and training are outlined in Section 9 of the CEMP.

8.3 Monitoring, Inspections and Reporting

Monitoring, inspection, and reporting requirements are outlined in Table 5.

Additional requirements and responsibilities in relation to monitoring and inspections more broadly are documented in the CEMP.

Table 10: Inspection, monitoring and reporting requirements

Type of Inspection	Frequency	Standards	Reporting	Responsibility
Waste Tracking Register Monitoring	As required	Monitoring the classification, movement and disposal of spoil in accordance with this sub-plan.	Construction Monitoring Report Project Monthly Report	Spoil Manager
Spoil Tracking Inspections	Weekly	Inspections of the appropriate disposal records and disposal dockets retained for audit purposes.	Weekly Environmental Inspection Report	Environmental Advisor
GPS tracking system (e.g. – Navman Teletrac) Monitoring	As required	Track, monitor and log trucks in real time. Compliance to receival sites, haulage routes, operating hours.	Electronic records Compliance Monitoring and Reporting Program	Traffic Manager
Sustainability Monitoring	As required	Monitoring the performance of beneficial reuse of spoil either within the project or at off-site locations, Waste Disposal Permits, Resource Recovery Order records, and waste dockets for any spoil disposed of to landfill sites.	Sustainability Report (monthly)	Sustainability Manager
Weekly Inspections	Weekly	Weekly inspections which, as part of the weekly environmental inspection further outlined in the CEMP, will include inspection of the environmental controls and mitigation measures outlined in Section 7, including spoil storage, segregation, and reuse.	Weekly Environmental Inspection Report	Environmental Advisor
Daily Inspections	Daily	Daily walk through of the construction site to ensure all spoil management controls are	Daily environmental checklist	Site Supervisor

Type of Inspection	Frequency	Standards	Reporting	Responsibility
		being implemented effectively and to identify potential spoil management impacts, including: <ul style="list-style-type: none"> Exposed spoil stockpiles Idling haulage vehicles Incorrect management of contaminated spoil. 		
Site Auditor Inspections	As required to review and approve documentation associated with spoil management	Inspections of the construction site to ensure compliance with Remedial Action Plans.	Details recorded within Interim Advices, Site Audit Memos, or within Site Audit Reports	Site Auditor
Independent Site Inspections	As required	Compliance with the requirements of this Plan and existing Approvals.	ER Site Inspection Report	ER / Sydney Metro

Specific reports prepared in response to spoil monitoring will capture detail including, but not limited, to:

- Within one working day of receiving a complaint, notify Sydney Metro
- Within 5 working days provide Sydney Metro with a final report regarding the complaint
- Detail of any corrective actions and confirmation of successful implementation
- Records of compliance with the MCoA, REMMs, CEMF requirements and management measures in this SPMP
- Records of spoil tracking and heavy vehicle tracking
- Records of any spoil management measures implemented
- Records of spoil management inspections and monitoring undertaken.

8.4 Auditing

Audits (both internal and independent) will be undertaken to assess the effectiveness of environmental controls, compliance with this sub-plan, MCoA and other relevant approvals, licenses, and guidelines. These audits will be undertaken at planned intervals to provide information on whether the Project:

- Is meeting its compliance obligations
- Conforms to this sub-plan
- Determines if this sub-plan is effectively implemented and maintained.

GALC will undertake an internal audit within the first three months from commencement of construction and then annually for the SPMP.

As requested by the City of Parramatta Council, all internal and independent audits will be submitted to council for review as they are completed.

The approach to internal and independent audits, including auditing schedule, is outlined further in Section 11.3 of the CEMP.

8.5 Environmental Incidents

Management of environmental incidents is detailed in Section 12.2 of the CEMP.

Examples of incidents as they relate to spoil management may typically include:

- Spoil taken to incorrect disposal facility
- Spoil haulage spills on public roads
- Dispersion of contaminated spoil into waterways.

8.6 Complaints Register

All complaints made by the community and stakeholders will be managed in accordance with the Sydney Metro's requirements, the Overarching Community Communication Strategy, including the Sydney Metro Construction Complaints Management System (CCMS) (2021), as well as relevant MCoAs (B1 – B6).

The CCMS will be implemented before the commencement of any construction works and maintained for the duration of construction. The CCMS will be available for a minimum for 12 months following completion of construction of Project.

The following information will be available to facilitate community enquiries and manage complaints before the commencement of work and for 12 months following the completion of construction:

- a) A 24- hour telephone number for the registration of complaints and enquiries about the Project
- b) A postal address to which written complaints and enquires may be sent
- c) An email address to which electronic complaints and enquiries may be transmitted
- d) A mediation system for complaints unable to be resolved.

This information will be accessible to all in the community regardless of age, ethnicity, disability or literacy level.

An electronic complaints register will be maintained at all times. GALC will record information on all complaints received about the Project into this register during construction works. The register will be maintained for a minimum of 12 months following the completion of construction. This register will include the following information:

- a) Number of complaints received
- b) Date and time of the complaint
- c) Number of people in the household affected in relation to a complaint, if relevant
- d) Method by which the complaint was made
- e) Any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect
- f) Issue of the complaint
- g) Means by which the complaint was addressed and whether resolution was reached, with or without mediation
- h) If no action was taken, the reason(s) why no action was taken.

Community members and stakeholders making a complaint will be advised of the following information before, or as soon as practicable after, providing personal information:

- a) the complaints register may be forwarded to government agencies, including the Department (Department of Planning Industry and Environment, 4 Parramatta Square, 12 Darcy Street, Parramatta NSW 2150), to allow them to undertake their regulatory duties
- b) by providing personal information, the complainant authorises GALC to provide that information to government agencies
- c) the supply of personal information by the complainant is voluntary
- d) the complainant has the right to contact government agencies to access personal information held about them and to correct or amend that information (Collection Statement).

The Collection Statement will be included on the GALC or Project website to make prospective complainants aware of their rights under the *Privacy and Personal Information Protection Act 1998*. For any complaints made in person, the complainant will be made aware of the Collection Statement.

In accordance with the overarching CCMS, GALC will submit the complaints register in the online Consultation Manager system. Sydney Metro will provide the Complaints Register to the Planning Secretary upon request, within the timeframe stated in the request.

As requested by the City of Parramatta Council, the complaints register will be submitted by Sydney Metro to council for review prior to operation of the Project.

9 REVIEW AND IMPROVEMENT

9.1 Continuous Improvement

The Project Management Team will review the status and adequacy of the EMS including the CEMP and Sub-plans. The objective of the review will be to ensure that it meets current Sydney Metro and GALC requirements as well as relevant environmental standards.

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

The continuous improvement process will be designed to:

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

In order to ensure continual improvement and prevent recurring issues, this sub-plan will be reviewed in response to:

- Corrective actions arising from non-conformance, incidents, or audits
- Opportunity for improvement in environmental management performance which may be identified by the project team, ER or Sydney Metro
- Changes to the Gamuda Australia EMS.

Review of this sub-plan will occur annually as a minimum, or as needed in consultation with Sydney Metro and the ER. A copy of the updated plan and changes will be distributed to all relevant stakeholders in accordance with the approved document control procedure as outlined in the CEMP.

9.2 Document Updates

The processes described above may result in the need to update or revise this sub-plan. This will occur annually as a minimum, or as needed, and may only be approved by the Environmental Manager, or delegate.

Where minor amendments are required to this SPMP, the revised SPMP will be issued to the ER for review and endorsement in accordance with MCoA A30(j).

9.3 Distribution

All GALC personnel and contractors will have access to this SPMP via the project document control management system.

The approved SPMP will be published on the GALC website within one week of being approved and be publicly available until the end of the Construction Period.

A copy of the SPMP will be published and maintained on the Project website, in accordance with MCoA B11. The SPMP will be published within one week of its approval or before the commencement of any work to which they relate or before their implementation, as the case may be.

The document is uncontrolled when printed.

10 ATTACHMENTS

Attachment 1 – Compliance Matrix

The MCoA, REMMs, CEMF requirements and EPL requirements that relate to this FFMP are detailed in the following tables.

MCoAs

ID	Conditions of Approval	Document Reference
A2	Stage 1 of the CSSI must only be carried out in accordance with all procedures, commitments, preventative actions, performance criteria and mitigation measures set out in the documents listed in Condition A1 of this schedule unless otherwise specified in, or required under, this approval.	CEMP
	Where the conditions of this approval require a document or monitoring program to be prepared, or a review to be undertaken, in consultation with identified parties, evidence of the consultation undertaken must be submitted to the Planning Secretary with the document. The evidence must include:	CEMP, Attachment 2
	(a) documentation of the engagement with the party identified in the condition of approval that has occurred before submitting the document for approval;	
A6	(b) a log of the dates of engagement or attempted engagement with the identified party and a summary of the issues raised by them;	CEMP, Attachment 2
	(c) documentation of the follow-up with the identified party(s) where feedback has not been provided to confirm that the party(s) has none or has failed to provide feedback after repeated requests;	CEMP, Attachment 2
	(d) outline of the issues raised by the identified party(s) and how they have been addressed; and	CEMP, Attachment 2
	(e) a description of the outstanding issues raised by the identified party(s) and the reasons why they have not been addressed.	CEMP, Attachment 2
A47	All Heavy Vehicles used for spoil haulage must be clearly marked on the sides and rear with the project name and application number to enable immediate identification by a person viewing the Heavy Vehicle standing 20 metres away.	Section 7.7

ID	Conditions of Approval	Document Reference
C1	Construction Environmental Management Plans (CEMPs) and CEMP Sub-plans must be prepared in accordance with the Construction Environmental Management Framework (CEMF) included in the documents listed in Condition A1 of this schedule to detail how the performance outcomes, commitments and mitigation measures specified in the documents listed in Condition A1 of this schedule will be implemented and achieved during construction.	CEMP and Attachment 1
C5(e)	<p>Of the CEMP Sub-plans required under Condition C1 of this schedule, the following CEMP Sub-plans must be prepared in consultation with the relevant government agencies identified for each CEMP Sub-plan. Details of issues raised by a government agency during consultation must be included in the relevant CEMP Sub-plan, including copies of all correspondence from those government agencies as required by Condition A6 of this schedule. Where a government agency (ies) request(s) is not included, the Proponent must provide the Planning Secretary / ER (whichever is applicable) justification as to why:</p> <p>(e) Spoil – Relevant Council(s) and SOPA (in respect of Sydney Olympic Park)</p>	Section 1.4, Attachment 2
C6	<p>The CEMP Sub-plans must state how:</p> <p>(a) the environmental performance outcomes identified in the documents listed in Condition A1 of this schedule will be achieved;</p> <p>(b) the mitigation measures identified in the documents listed in Condition A1 of this schedule will be implemented;</p> <p>(c) the relevant conditions of this approval will be complied with; and</p> <p>(d) issues requiring management during construction (including cumulative impacts), as identified through ongoing environmental risk analysis, will be managed through SMART principles.</p>	Attachment 1 Attachment 1 Attachment 1 CEMP, Section 7.1
C7	With the exception of any CEMP Sub-plans expressly nominated by the Planning Secretary to be endorsed by the ER, all CEMP Sub-plans must be submitted to the Planning Secretary for approval.	Section 1.5
C9	Any of the CEMP Sub-plans to be approved by the Planning Secretary must be submitted to the Planning Secretary with, or subsequent to, the submission of the CEMP but in any event, no later than one (1) month before construction or where construction is phased no later than one (1) month before the commencement of that phase.	Section 1.5

ID	Conditions of Approval	Document Reference
C10	Construction must not commence until the CEMP and all CEMP Sub-plans have been approved by the Planning Secretary or endorsed by the ER (whichever is applicable), unless otherwise agreed by the Planning Secretary. The CEMP and CEMP Sub-plans , as approved by the Planning Secretary or endorsed by the ER (whichever is applicable), including any minor amendments approved by the ER , must be implemented for the duration of construction. Where construction of Stage 1 of the CSSI is phased, construction of a phase must not commence until the CEMP and CEMP Sub-plans for that phase have been approved by the Planning Secretary or certified by the ER upon nomination by the Planning Secretary (whichever is applicable).	Section 1.5
D37(d)(iv)	Notwithstanding Conditions D35 and D36 of this schedule work may be undertaken outside the hours specified in the following circumstances: (d) By Prescribed Activity, including: (iv) haulage of spoil except between the hours of 10:00pm and 7:00am to / from the Five Dock and Westmead construction sites and to / from Burwood North construction site using any roads / streets other than directly from Parramatta Road.	Section 7.77.1
D83	The locations of all Heavy Vehicles used for spoil haulage must be monitored in real time and the records of monitoring be made available electronically to the Planning Secretary and the EPA upon request for a period of no less than one (1) year following the completion of construction.	Section 7.7 and Section 8.3
D84	The primary egress routes for spoil haulage trucks at Sydney Olympic Park metro station construction site must be determined in consultation with SOPA.	Section 7.7
D90(e)	Vehicles associated with the project workforce (including light vehicles and Heavy Vehicles) must be managed to: (e) ensure spoil haulage vehicles adhere to the nominated haulage routes identified in the CTMPs	Section 7.7
D99	Opportunities to maximise spoil material removal by non-road methods must be investigated and implemented where reasonably practicable to minimise movements by road.	Section 7.1
D111	Waste generated during construction and operation must be dealt with in accordance with the following priorities: (a) waste generation must be avoided and where avoidance is not reasonably practicable, waste generation must be reduced;	Section 7.2, Section 7.4 and Section 7.5

ID	Conditions of Approval	Document Reference
	(b) where avoiding or reducing waste is not possible, waste must be re-used, recycled, or recovered; and	Section 7.2, Section 7.4 and Section 7.5
	(c) where re-using, recycling or recovering waste is not possible, waste must be treated or disposed of.	Section 7.6
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 <i>Protection of the Environment Operations (Waste) Regulation 2014</i> , as the case may be.	Waste Management Sub-plan
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 <i>Protection of the Environment Operations (Waste) Regulation 2014</i> , or to any other place that can lawfully accept such waste.	Section 7.6
D114	All waste must be classified in accordance with the EPA's <i>Waste Classification Guidelines</i> , with appropriate records and disposal dockets retained for audit purposes.	Section 7.6 and Section 8.3

REMMs

ID	Mitigation Measure	Document Reference
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.	Section 5.1, Section 7.1, Section 7.2, Section 7.3, Section 7.4, Section 7.5, Section 7.6, Section 7.7
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.	Waste Management Sub-plan, Section 7.1

ID	Mitigation Measure	Document Reference
WR3	Construction waste would be minimised by accurately calculating materials brought to the site and limiting materials packaging.	Waste Management Sub-plan
WR4	Waste streams would be segregated to avoid cross-contamination of materials and maximise reuse and recycling opportunities.	Section 5.1, Section 7.1
WR5	A material tracking system would be implemented for material transferred between Sydney Metro West sites and to offsite locations such as licensed waste management facilities.	Section 7.7
NV14	Further assessment of construction traffic would be completed during detailed design, including consideration of the potential for exceedances of the NSW Road Noise Policy base criteria (where greater than 2 dB increases are predicted). The potential impacts would be managed using the following approaches, where feasible and reasonable: <ul style="list-style-type: none"> ● On-site spoil storage capacity would be maximised to reduce the need for truck movements during sensitive times ● Vehicle movements would be redirected away from sensitive receiver areas and scheduled during less sensitive times ● The speed of vehicles would be limited and the use of engine compression brakes would be avoided ● Heavy vehicles would not be permitted to idle near sensitive receivers. 	Section 7.1

CEMF Requirements

Clause	Requirement	Document Reference
6.1 (a)	The following spoil management objectives will apply to the construction of the project:	Section 3.1
	i.Minimise spoil generation where possible;	
	i.The project will mandate 100% reuse or recycling (on or off-site) of usable spoil;	Section 3.1
	i.Spoil will be managed with consideration to minimising adverse traffic and transport related issues;	Section 7.1 and Section 7.7

Clause	Requirement	Document Reference
	i. Spoil will be managed to avoid contamination of land or water;	Section 7.1, Section 7.3.2 and 7.6
	ii. Spoil will be managed with consideration of the impacts on residents and other sensitive receivers; and	Section 7.1 and 7.3
	i. Site contamination will be effectively managed to limit the potential risk to human health and the environment.	Section 7.1 and Section 7.3.2
6.2 (a)	Principal Contractors will develop and implement a Spoil Management Plan for their scope of works. The Spoil Management Plan will include as a minimum:	Attachment 1, Section 7.1, Section 7.2, Section 7.3, Section 7.4, Section 7.5, Section 7.6, Section 7.7
	i. The spoil mitigation measures as detailed in the environmental approval documentation;	
	ii. The responsibilities of key project personnel with respect to the implementation of the plan;	Section 8.1
	iii. Procedures and methodologies for the haulage and disposal locations, storage and stockpiling arrangements, including those for virgin excavated natural material, contaminated and unsuitable material;	Section 7.3, Section 7.6, Section 7.7 and Attachment 3
	iv. Procedures for the testing, excavation, classification, handling and reuse of spoil;	Section 7.1, Section 5.1, Section 7.2, Section 7.4, Section 7.5
	v. measures that will be implemented to both reduce spoil quantities and maximise the beneficial reuse of spoil which will be generated during the performance of the Contractor's Activities, including how spoil generation is minimised through the design development process;	Section 7.1, Section 7.4 and Section 7.5
	vi. Details, links or references to where traffic movements in relation to spoil are described, and measures that will be implemented to minimise traffic and noise impacts associated with haulage and disposal of spoil;	Section 7.1, Section 7.6
	vii. quantities for reuse of spoil within the Construction Site, for beneficial reuse of spoil off site and for spoil disposal;	Section 5.2

Clause	Requirement	Document Reference
	viii. Processes and procedures for the management of the environmental and social impacts of spoil transfer and reuse;	Section 7.1, Section 7.3, Section 7.7, Section 8.3 and Section 8.5
	ix. A register of spoil receipt sites that includes the site or project name, location, capacity, site owner and which tier the site is classified as under the spoil reuse hierarchy;	Attachment 3
	x. Spoil management monitoring requirements; and	Section 8.3
	xi. Compliance record generation and management.	Section 8.3
6.2 (b)	Spoil management measures will be included in regular inspections undertaken by the Contractor, and compliance records will be retained. These will include:	Section 8.3
	i. Records detailing the beneficial re-use of spoil either within the project or at off-site locations; and	
	ii. Waste docket for any spoil disposed of to landfill sites.	Attachment 4

Environment Protection Licence

The Project construction activities are designated as '**Railway activities—railway infrastructure construction**' under Schedule 1 of the POEO Act. Scheduled activities under clause 48 of the POEO Act, require an Environmental Protection Licence (EPL) for the premise at which a scheduled activity is carried on. The EPL typically regulates the emissions of potentially offensive odours and dust.

Waste transporters who remove trackable waste as defined in Schedule 1 of the POEO Act 1997 are required to be licensed. As such, the procurement and onboarding process will ensure the correct licenses are in place prior to engaging waste transporters.

To maximise reuse of spoil, Resource Recovery Order(s) and Resource Recovery Exemption(s) will be sought for material leaving the Project site.

Attachment 2 – Stakeholder Consultation

Engagement Log

Stakeholder	Date of Engagement/ Attempted Engagement
SOPA	<ul style="list-style-type: none"> Sydney Metro sent SOPA an invitation to review and comment on the SPMP on 05/04/2022, which included a cover letter and the SPMP as a PDF document No response was received from SOPA within the 21-day consultation period
City of Parramatta Council	<ul style="list-style-type: none"> Sydney Metro sent the City of Parramatta Council an invitation to review and comment on the SPMP on 05/04/2022, which included a cover letter and the SPMP as a PDF document The City of Parramatta Council provided comments on 05/05/2022
Cumberland City Council	<ul style="list-style-type: none"> Sydney Metro sent Cumberland City Council an invitation to review and comment on the SPMP on 05/04/2022, which included a cover letter and the SPMP as a PDF document The Cumberland City Council provided comments on 27/04/2022

Comments Register

Stakeholder	Comment Raised	GALC Response	Where Addressed
City of Parramatta Council	Council should support and encourage the minimisation of any surplus spoil from the development with reuse of materials within sites and within project wherever possible. This will limit environmental impacts (noise, dust, air/water pollution) imposed by having to transport surplus spoil material across the LGA to off-project disposal sites.	Noted. A paragraph has been added to Section 3.1 to emphasise the benefit of reusing spoil materials onsite.	Section 3.1
	Reference is made to sediment and erosion controls being in place, these should be designed	A new paragraph has been added to Section 7.3 to include erosion and sediment controls to	Section 7.3

Stakeholder	Comment Raised	GALC Response	Where Addressed
	so as to cope with significant rainfall events as has been experienced in Sydney in recent times to ensure that materials are not allowed to leave the stockpile locations and pose a risk to the environment. This is considered especially important for contaminated material stockpiles where extra measures such as placing undercover within containment sheds may be required.	prevent dispersion of contaminated stockpiled spoil during high rainfall events.	
	As mentioned earlier offsite reuse should be kept to as minimal a level as possible, however if required locations nearest to the removal site should be considered to limit potential environmental impacts of spoil transport and to provide a resource to development sites within the LGA of the project.	A new paragraph has been added to Section 7.5 which states that receival sites will be selected based on proximity to the construction site.	Section 7.5
	Offsite material movement and other major movements will need to take in account activities occurring in the precinct areas during construction, e.g. major events in SOPA (Easter Show, concerts, sporting events), Rosehill Racecourse (CLYDE MSF) and any other major works happening in conjunction e.g. PLR and construction project in Parramatta CBD.	A new paragraph has been added to Section 7.7 to include mitigation measures for cumulative impacts to traffic during special events.	Section 7.7
	It is requested that copies of the audits (internal and independent) are provided to Council for review upon completion.	Noted. A statement has been added to Section 8.4 to specify that internal and independent audits will be submitted to City of Parramatta Council.	Section 8.4
	It is requested that details of the complaint register be provided to Council customer service team prior to commencement of operations.	Noted. A statement has been added to Section 8.6 to specify that the complaints register will be	Section 8.6

Stakeholder	Comment Raised	GALC Response	Where Addressed
		submitted to City of Parramatta Council prior to operation of the Project.	
Cumberland City Council	Contaminated spoil designated for remediation, offsite reuse or disposal will be managed in accordance with the relevant related Detailed Site Investigation (DSI) and Remedial Action Plan (RAP). There would also be separate sub plans in place for Soil and Water Management, Waste, Air Quality and Groundwater management.	Once the nature of any contaminated spoil is known from the DSI, RAPs will be developed to outline the management procedures for remediation, reuse or disposal of the spoil. This is outlined in Section 7.3.2, Section 7.4, Section 7.5 and Section 7.6. The Soil and Water Management Sub-plan outlines the DSI and RAP process.	Section 7.3.2, Section 7.4, Section 7.5 and Section 7.6
	The Spoil sub Plan references a site auditor being involved (Table 9 – page 34) and this will effectively ensure that the entire process in terms of contamination risks are overseen. There will also be a complaints register which we had suggested in our comments on the metro review and there will also be protocols in place for Environmental Incidents under the current licences.	Refer to Section 8.5 and Section 8.6 for information regarding the procedure for Environmental Incidents and the Complaints Register.	Section 8.5 and Section 8.6

Comments Register – Outstanding Issues

Stakeholder	Comment Raised	GALC Response	Proposed Action
City of Parramatta Council	Reference is made to the Soil and Water Management Sub-Plan regarding further detail concerning the management of contamination, unexpected finds protocol and relevant site audit processes. This sub-plan	It is acknowledged that the review of the SPMP is incomplete until City of Parramatta Council is provided with the Soil and Water Management Sub-plan, which outlines the management of contamination, unexpected finds	The Soil and Water Management Sub-plan has been provided to City of Parramatta Council for review.

Stakeholder	Comment Raised	GALC Response	Proposed Action
	should be provided to Council for review and comment also.	protocol and relevant site audit processes applicable to the SPMP.	
Cumberland City Council	Whilst it would be good for the Spoil Management Plan to specifically list the DSI and RAP documents under the 'Existing Environment' or 'Environmental Mitigation and Management Measures' section, it is understood that these reports are not currently available and will be provided at some stage depending on what work has/hasn't been approved as yet but it is understood these do form part of the overarching review process	The process around development of the DSI and RAP documents will be discussed in the Soil and Water Management Sub-plan. The Soil and Water Management Sub-plan outlines the process for managing contamination, including contaminated spoil.	N/A

Meeting Minutes

Document Transmittal

Transmittal No:	SMWSTWTP-GLO-TX-000090
Contract No:	WTP - 00013/13065 - Western Tunnelling Works Design and Construction Deed
Sub Contract:	WTP
Date:	14 April 2022, 07:58 AM

Issued	Name
By	Liem Ngo (Gamuda Laing O'Rourke Consortium)

Issued	Name
To	Andrew Hendy (Sydney Metro) ; Alicia Hatton (Sydney Metro) ; Kate Brooks (Sydney Metro)
Cc	Hayley Young (Gamuda Laing O'Rourke Consortium) ; Steph Mfsud (Gamuda Laing O'Rourke Consortium) ; Andy Thompson (Gamuda Laing O'Rourke Consortium) ; Huw Griffiths (Gamuda Laing O'Rourke Consortium) ; Tom Olorenshaw (Gamuda Laing O'Rourke Consortium)

Reason for Issue	Issued for Information
Subject	Cumberland Council Meeting Minutes - 7 April 2022

Dear all

Please find attached for your information, minutes for the meeting with Cumberland City Council on 7 April 2022.

Regards

Liem Ngo

Stakeholder and Community Engagement Manager
 Sydney Metro West – Western Tunnelling Package
 Gamuda Australia Laing O'Rourke Consortium

[Click here to download all Transmittal files.](#)

Item	Document No	Title	Rev	Sts	Type	Design Lots	Alt Doc No
1	SMWSTWTP-GLO-WMD-CY-MIN-000001	Meeting Minutes - Cumberland City Council - 7 April 2022 - Project introduction and environmental management plans	A.01	S2	MIN		

MEETING MINUTES

Meeting details

Meeting title	Briefing for Cumberland City Council - Sydney Metro West Western Tunnelling Package Project and Environmental Management Plan consultation introduction	
Date Time	7 April 2022, 15:30-16:15	
Location	MS Teams (online)	
Attendees	Gamuda Australia Laing O'Rourke (GLC):	Simon Hussey, Andy Thompson, Hayley Young, Huw Griffiths, Tom Olorenshaw, Liem Ngo, Stephanie Mifsud
	Sydney Metro (SM)	Andrew Hendy, Kate Brooks, Nikita Cullum
	Cumberland City Council (CCC)	Daniel Cavallo, Shona Porter, Daniel Anderson

Item Information

1 Introductions and welcome

Introductions of meeting participants were conducted

2 Western Tunnelling Package & CEMP Consultation

2.1 **Andy Thompson delivered a presentation to provide an overview of the Sydney Metro West Western Tunnelling Package (WTP) including:**

- Introduction about Gamuda Australia and Laing O'Rourke
- Introducing the project team and key providers
- A construction overview, including project staging

2.2 **Tom Olorenshaw provided an overview of key construction, which will include:**

- HV trenching to bring in power supply for plant equipment will commence mid-2022 and will last 3-5 months
- Local area works to facilitate deliveries. Changes to kerbs, traffic lights and installation of pedestrian fencing to improve road safety are currently still in design. CCC will be consulted on proposed designs.
- Excavation works will start in 2023 and continue into 2024. This includes for the excavation of the station box, stub tunnels and cross over cavern. An acoustic shed will be built to mitigate noise from excavation.
- Tunnel Boring Machine (TBM) removal will from Westmead site will take approximately 6-8 weeks.

Andy Thompson noted that Sydney Metro by changing the TBM launch site from Westmead to Rosehill, has substantially reduced the impact on Westmead due to the tunnel segments no longer needing to be delivered regularly to the Westmead site.

2.3 **Liem Ngo provided an overview of potential stakeholder impacts, mitigation and engagement**

2.4 **Stephanie Mifsud presented the WTP Project's environmental approvals framework, including:**

- The environmental approvals process, including the Construction Environmental Management Plans.
- WTP Environmental Management plans framework and their interconnectedness with a range of WTP



Item	Information
	<p>procedures and strategies</p> <ul style="list-style-type: none">• CEMP relationship with the WTP project's environmental management systems• Inviting feedback on the various tranches of the CEMP, with the first tranches to submitted shortly to SOPA and other key stakeholders for consultation, with a 4-week consultation process proposed, involving:• Step 1. 2-weeks for written feedback, Step 2 - in week 3, a comment review workshop for subject matter experts to address CCC feedback, Step 3 - in week 4, CEMPS to be amended to address comments discussed in the workshop

3	Questions and Answers (CCC questions, GLC or SM answers)
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Q. What is the depth of the tunnels?

A. Station box is between 30 and 37m from surface, stub tunnels are 25 metres from surface and the crown of the cross cavern tunnel is 15m from the surface.

Q. Does tunnel depth limit basement depth for future developments?

A. (GLC) Potentially. There will be restrictions on depth from operating rail lines which may impact future developments.

Action: GLC, via Sydney Metro/TfNSW will provide CCC with depth restrictions for future development.

Q. With respect to the environmental management plans, is GLC seeking technical advice or fact-checking?

A. Both. If the Council has feedback on technical issues GLC welcomes those issues being raised at this early stage so it can be discussed. GLC suggests that any feedback clearly identify the particular sections of a plan and clearly states the outcome CCC wants.

Action: Sydney Metro, when sending plans to CCC for review and feedback should address to Daniel Cavallo and copied to his EA, Sarah Hussein, to coordinate input from CCC.

	Meeting finish
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4	Next meeting
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Date: Consultation workshop date to be determined

Time: TBD

Location: TBD



West

Document Transmittal

Transmittal No:	SMWSTWTP-GLO-TX-000072
Contract No:	WTP - Western Tunnelling Package
Sub Contract:	WTP
Date:	07 April 2022, 09:47 AM

Issued	Name
By	Liem Ngo (Gamuda Laing O'Rourke JV)

Issued	Name
To	Alicia Hatton (Sydney Metro) ; Andrew Hendy (Sydney Metro) ; Nick Nathans (Sydney Metro) ; Kate Brooks (Sydney Metro)
Cc	Hayley Young (Gamuda Laing O'Rourke JV) ; Steph Mfsud (Gamuda Laing O'Rourke JV)

Reason for Issue	Issued for Information
Subject	SOPA Project & CEMP briefing - Meeting Minutes - 1 April 2022

Dear all

Please find attached for your information, meeting minutes for the 1 April 2022 meeting with SOPA.

Regards
Liem Ngo

[Click here to download all Transmittal files.](#)

Item	Document No	Title	Rev	Sts	Type	Design Lots	Alt Doc No
1	SMWSTWTP-GLO-QLP-SK-MN-000001	SOPA Project & CEMP briefing - Meeting Minutes - 1 April 2022	-01	S2	MIN		

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Attachment(s):

MEETING MINUTES

Meeting details							
Meeting title	Briefing for SOPA - Sydney Metro West Western Tunnelling Package Project and Environmental Management Plan consultation introduction						
Date Time	1 April 2022						
Location	MS Teams (online)						
Attendees	<table border="0"> <tr> <td>Gamuda Australia Laing O'Rourke (GLC):</td> <td>Simon Hussey, Andy Thompson, Hayley Young, Huw Griffiths, Liem Ngo, Stephanie Mifsud</td> </tr> <tr> <td>Sydney Metro (SM)</td> <td>Nick Nathan (Facilitator/Chair), Andrew Hendy, Alicia Hatton, Sarah Lepre, Nikkita Cullum, Ian Subramanian</td> </tr> <tr> <td>Sydney Olympic Park Authority (SOPA)</td> <td>Sally Hamilton, John Ferguson, Vivienne Albin, Julie Currey</td> </tr> </table>	Gamuda Australia Laing O'Rourke (GLC):	Simon Hussey, Andy Thompson, Hayley Young, Huw Griffiths, Liem Ngo, Stephanie Mifsud	Sydney Metro (SM)	Nick Nathan (Facilitator/Chair), Andrew Hendy, Alicia Hatton, Sarah Lepre, Nikkita Cullum, Ian Subramanian	Sydney Olympic Park Authority (SOPA)	Sally Hamilton, John Ferguson, Vivienne Albin, Julie Currey
Gamuda Australia Laing O'Rourke (GLC):	Simon Hussey, Andy Thompson, Hayley Young, Huw Griffiths, Liem Ngo, Stephanie Mifsud						
Sydney Metro (SM)	Nick Nathan (Facilitator/Chair), Andrew Hendy, Alicia Hatton, Sarah Lepre, Nikkita Cullum, Ian Subramanian						
Sydney Olympic Park Authority (SOPA)	Sally Hamilton, John Ferguson, Vivienne Albin, Julie Currey						

Item	Information
1	Introductions and welcome

Introductions of meeting participants were conducted

Nick Nathan (SM) provided an overview of the Sydney Metro West Project, including the three tunnelling packages and of the Stage 3 EIS currently open for public consultation.

Alicia Hutton (SM) introduced the GLC team, including Andy Thompson (GLC) to provide details about the Western Tunnelling Package (WTP)

2	Western Tunnelling Package & CEMP Consultation
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2.1 Andy Thompson delivered a presentation to provide an overview of the Sydney Metro West Western Tunnelling Package (WTP) including:

- Introduction about Gamuda Australia and Laing O'Rourke
- Introducing the project team and key providers
- A construction overview, including project staging
- Explanation of the combined Sydney Metro West construction site, including the WTP and the Central Tunnelling Package (CTP) sections
- The stages for the TBM retrieval and nozzle construction, site demobilisation and handover to CTP contractor

2.2 Liem Ngo provided an overview of potential stakeholder impacts, mitigation and engagement

2.3 Stephanie Mifsud presented the WTP Project's environmental approvals framework, including:

- The environmental approvals process, including the Construction Environmental Management Plans.
- WTP Environmental Management plans framework and their interconnectedness with a range of WTP procedures and strategies
- CEMP relationship with the WTP project's environmental management systems
- Inviting feedback on the various tranches of the CEMP, with the first tranches to submitted shortly to



Item	Information
	<p>SOPA and other key stakeholders for consultation, with a 4-week consultation process proposed, involving:</p> <ul style="list-style-type: none">• Step 1. 2-weeks for written feedback, Step 2 - in week 3, a comment review workshop for subject matter experts to address SOPA feedback, Step 3 - in week 4, CEMPS to be amended to address comments discussed in the workshop

3	Questions and Answers (SOPA questions, GLC or SM answers)
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Q. Will the WTP project tunnel under Haslams Creek?

A. Yes

Q. Is a site auditor involved and will a meeting be setup with SOPA?

A. (GLC) Yes, Kylie Lloyd has been appointed the WTP site auditor and a meeting can be set up. It was noted that CTP will have a separate site auditor.

Action: GLC to set up meeting between the site auditor and SOPA.

Q. Will the issues raised by SOPA during the CEMP consultation be addressed and closed out?

A. (GLC) Yes. The workshop is designed to have the subject matter experts present to address SOPA's feedback and ensure any necessary changes to the CEMPs to reflect the discussions.

Q. When will more detailed stakeholder engagement occur?

A. (GLC) Since GLC is not planning to take possession of the site until December 2023 or early 2024. More detailed stakeholder engagement is likely to commence in first half of 2023. Although it was noted that both parties welcome dialogue on any issues that may emerge in the meantime.

Q. How will the CEMPs be transmitted for consultation

A. (GLC) GLC will submit to Andrew Hendy at Sydney Metro who will then distribute to respective stakeholder and interface managers to send to SOPA and other key stakeholders for consultation.

Q. Is there an unexpected finds protocol?

A. (GLC) Yes, there is.

Q. Can the feedback given to CTP be shared with the WTP team?

A. (SM) Feedback from consultation on CTP plans should be included within the respective plans which are now publicly available. Andrew Hendy will provide links to the GLC Environment and Planning team.

Q. How with Sydney Metro coordinate WTP and CTP activities?

A. (SM) Nick Nathan will coordinate CTP and WTP teams for SOP interface, via joint SOPA meetings or meet separately with each contract teams, as required.

	Meeting finish
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10	Next meeting
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Date: Consultation workshop date to be determined (late April/early May)

Time: TBD

Location: TBD

Meeting Summary**Total Number of Participants**

20

Meeting Title

SMW Introduction and CEMP Sub-Plans Briefing

Meeting Start Time

3/24/2022, 3:59:12 PM

Meeting End Time

3/24/2022, 4:46:41 PM

Meeting Id

18d00fea-6311-4935-8a5d-d89b04fb3722

Full Name	Join Time	Leave Time	Duration
Tania Page	3/24/2022, 3:59:12 PM	3/24/2022, 4:46:41 PM	47m 29s
Andy Thompson (GAB)	3/24/2022, 3:59:20 PM	3/24/2022, 4:46:37 PM	47m 17s
Sarah Lepre	3/24/2022, 3:59:51 PM	3/24/2022, 4:46:35 PM	46m 44s
Andrea Giusa	3/24/2022, 3:59:55 PM	3/24/2022, 4:46:41 PM	46m 45s
Ngo, Liem	3/24/2022, 4:00:04 PM	3/24/2022, 4:46:37 PM	46m 33s
Steph Mifsud (GAB)	3/24/2022, 4:00:09 PM	3/24/2022, 4:46:37 PM	46m 28s
Griffiths, Huw	3/24/2022, 4:00:25 PM	3/24/2022, 4:46:38 PM	46m 13s
Andrew Hendy	3/24/2022, 4:00:26 PM	3/24/2022, 4:46:38 PM	46m 11s
Bishwanand Mishra	3/24/2022, 4:00:30 PM	3/24/2022, 4:46:36 PM	46m 6s
Nikkita Cullum	3/24/2022, 4:00:32 PM	3/24/2022, 4:46:36 PM	46m 4s
Jim Tsom	3/24/2022, 4:00:34 PM	3/24/2022, 4:46:39 PM	46m 4s
Hayley Young (GAB)	3/24/2022, 4:01:17 PM	3/24/2022, 4:46:36 PM	45m 19s
Pino Todarello	3/24/2022, 4:01:22 PM	3/24/2022, 4:46:35 PM	45m 12s
Phillip Kelly	3/24/2022, 4:01:35 PM	3/24/2022, 4:46:36 PM	45m
Ian Subramaniam	3/24/2022, 4:01:35 PM	3/24/2022, 4:46:35 PM	45m
Simon Hussey (GAB)	3/24/2022, 4:01:55 PM	3/24/2022, 4:46:36 PM	44m 41s
Adrian Mihaila	3/24/2022, 4:03:52 PM	3/24/2022, 4:46:36 PM	42m 44s
Stuart Pike	3/24/2022, 4:04:52 PM	3/24/2022, 4:46:36 PM	41m 43s
Matthew Marrinan	3/24/2022, 4:05:05 PM	3/24/2022, 4:46:36 PM	41m 30s
Sasi Kumar	3/24/2022, 4:06:28 PM	3/24/2022, 4:46:36 PM	40m 8s

Email

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andy.thompson@gamuda.com.au
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SPike@cityofparramatta.nsw.gov.au
Matthew.Marrinan@transport.nsw.gov.au
SKumar@cityofparramatta.nsw.gov.au

Role

SM, Snr Project Manager Interfaces West
GALC, Surface Works Construction Manager
SM, Project Officer Environment
CoPC, Heritage Advisor
GALC, Stakeholder & Engagement Manager
GALC, Environmental Manager
GALC,
SM, Manager Environment
CoPC, Senior Catchment Referral Engineer
SM, Graduate
CoPC, Supervisor Catchment Management
GALC, Environment & Sustainability Lead
CoPC, Supervisor Open Space & Natural Resources
SM, Stakeholder & Engagement Manager
SM, Project Manager Interfaces West
GALC, Deputy Project Director
CoPC, Health & Building Services Manager
CoPC, Team Leader Environmental Health Compliance
SM, Snr Manager Environment
CoPC, Development Manager Sydney Metro

Copies of Correspondence



5 April 2022

Attn Ms Shona Porter
Executive Manager City Strategy
Cumberland City Council
PO Box 42
MERRYLANDS NSW 2160

Dear Shona,

Sydney Metro SSI 10038 – Western Tunnelling Package – Gamuda Australia and Laing O’Rourke Consortium – Construction Spoil Management Sub-Plan

The Western Tunnelling Package (WTP) Package was recently awarded to Gamuda Australia and Laing O’Rourke Consortium (GALC). These works form part of the Sydney Metro West – Concept and Stage 1 (major civil construction between Westmead and The Bays) planning approval.

An introductory presentation was arranged by Sydney Metro to be provided by GALC on 7 April 2022.

The planning approval requires the preparation of environmental management plans prior to construction commencing. Please find attached the Western Tunnelling Package (WTP) Construction Spoil Management Sub-Plan, issued to the Cumberland City Council for consultation in accordance with CSSI 10038 Condition of Approval C5.

Accompanying this letter are the following document:

- WTP Spoil Management Sub-Plan

Consultation on this document is required under condition C5 of SSI 10038 and we are commencing a 3-week consultation process with you as of 5 April 2022 with this submission. During this period, we will hold a comment workshop in the third week (week commencing 19 April 2022). Your attendance is not mandatory, but highly advised to ensure you get the most out of the opportunity.

As the comment workshop is intended to respond to your comments, we would also like to receive comments prior to the workshop date. Please provide any comments via a comments register.

The consultation process will conclude on the date of the final workshop.

Should you have any questions or comments on the attached, please do not hesitate to contact Matthew Marrinan, Senior Manager Environment on Matthew.Marrinan@transport.nsw.gov.au or 0475 966 938.

Sydney Metro

Level 43, 680 George Street, Sydney NSW 2000 | PO Box K659, Haymarket NSW 1240
T 02 8265 9400 | sydneymetro.info | ABN 12 354 063 515

Yours sincerely

A handwritten signature in blue ink, appearing to read "Stuart Hodgson", is enclosed in a light blue rectangular box.

Stuart Hodgson
Director Sustainability, Environment & Planning
Metro West
Sydney Metro



5 April 2022

Attn Mr Sasi Kumar
Development Project Manager – Sydney Metro West
City of Parramatta Council
PO Box 32
PARRAMATTA NSW 2124

Dear Sasi,

Sydney Metro SSI 10038 – Western Tunnelling Package – Gamuda Australia and Laing O’Rourke Consortium – Construction Spoil Management Sub-Plan

The Western Tunnelling Package (WTP) Package was recently awarded to Gamuda Australia and Laing O’Rourke Consortium (GALC). These works form part of the Sydney Metro West – Concept and Stage 1 (major civil construction between Westmead and The Bays) planning approval.

An introductory presentation was arranged by Sydney Metro and provided by GALC on 24 March 2022.

The planning approval requires the preparation of environmental management plans prior to construction commencing. Please find attached the Western Tunnelling Package (WTP) Construction Spoil Management Sub-Plan, issued to the Parramatta City Council for consultation in accordance with CSSI 10038 Condition of Approval C5.

Accompanying this letter is the following document:

- WTP Spoil Management Sub-Plan

Consultation on this document is required under condition C5 of SSI 10038 and we are commencing a 3-week consultation process with you as of 5 April 2022 with this submission. During this period, we will hold a comment workshop in the third week (week commencing 19 April 2022). Your attendance is not mandatory, but highly advised to ensure you get the most out of the opportunity.

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Yours sincerely

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Stuart Hodgson
Director Sustainability, Environment & Planning
Metro West
Sydney Metro



5 April 2022

Attn: Sally Hamilton
Director, Environment and Planning
Sydney Olympic Park Authority
Locked Bag 3
SYDNEY OLYMPIC PARK NSW 2127

Dear Sally,

Sydney Metro SSI 10038 – Western Tunnelling Package – Gamuda Australia and Laing O’Rourke Consortium – Construction Spoil Management Sub-Plan

The Western Tunnelling Package (WTP) Package was recently awarded to Gamuda Australia and Laing O’Rourke Consortium (GALC). These works form part of the Sydney Metro West – Concept and Stage 1 (major civil construction between Westmead and The Bays) planning approval.

An introductory presentation was arranged by Sydney Metro and provided by GALC on 1 April 2022.

The planning approval requires the preparation of environmental management plans prior to construction commencing. Please find attached the Western Tunnelling Package (WTP) Construction Spoil Management Sub-Plan, issued to the Sydney Olympic Park Authority (SOPA) for consultation in accordance with CSSI 10038 Condition of Approval C5.

Accompanying this letter is the following document:

- WTP Spoil Management Sub-Plan

Consultation on this document is required under condition C5 of SSI 10038 and we are commencing a 3-week consultation process with you as of 5 April 2022 with this submission. During this period, we will hold a comment workshop in the third week (week commencing 19 April 2022). Your attendance is not mandatory, but highly advised to ensure you get the most out of the opportunity.

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Yours sincerely

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Stuart Hodgson
Director Sustainability, Environment & Planning
Metro West
Sydney Metro

Attachment 3 – Waste and Spoil Reveal Sites

The table below provides a guide as to the potential reveal sites GALC will utilise. All the listed sites may not be used with the list updated throughout the course of works as new opportunities come online. Each disposal site will be reviewed and approved prior to use with a live register maintained by the Spoil Team recording details such as Name, Landowner, Principal Manager, Licencing, Approvals, Location, Capacity, Site Owner and which tier the site is classified as under the spoil reuse hierarchy.

Disposal Site	Address	Accepted Waste Types	EPL number/ Planning Approval reference
Australian Native Landscapes Pty Ltd	60 Crawford Road, Cooranbong NSW 2265	<ul style="list-style-type: none"> • Virgin Excavated Natural Material (VENM) • Material which complies with a Resource Recovery order/exemption 	EPL No. 11324
AWJ	657-769 Mamre Rd Kemp's Creek	<ul style="list-style-type: none"> • Virgin Excavated Natural Material (VENM) • Material which complies with a Resource Recovery order/exemption 	SSD9522
Bingo Industries Recycling Park	1 Kangaroo Ave, Eastern Creek	<ul style="list-style-type: none"> • Building and Demolition Waste (concrete, brick etc.) • Asphalt waste • Waste Concrete Slurry • Concrete bricks and roof tiles • Cured Concrete waste from a batch plant • Virgin Excavated Natural Material (VENM) • Excavated Natural Material (ENM) 	EPL No. 13426, 20121
Boral Recycling Pty Ltd, St Peters	25 Burrows Road South, St Peters NSW 2044	<ul style="list-style-type: none"> • Building and Demolition Waste (concrete, brick etc.) • Asphalt waste • Virgin Excavated Natural Material (VENM) 	EPL No. 12418

Disposal Site	Address	Accepted Waste Types	EPL number/ Planning Approval reference
Boral Recycling Pty Ltd, Wetherill Park	39 Widemere Road, Wetherill Park NSW 2164	<ul style="list-style-type: none"> • Building and Demolition Waste (concrete, brick etc.) • Asphalt waste • Waste Concrete Slurry • Concrete bricks and roof tiles • Cured Concrete waste from a batch plant • Virgin Excavated Natural Material (VENM) • Excavated Natural Material (ENM) 	EPL No. 11815
Brandown, Kemps Creek	Lot 90 Elizabeth Drive, Kemps Creek NSW 2178	<ul style="list-style-type: none"> • Recycling waste, concrete bricks asphalt mixed building and construction waste, soil that meets the CT1 threshold for General Solid Waste • Landfill, material that is un- recyclable and contaminated soils classified as General Solid Waste, as by test results 	EPL No. 5186
Breen Holdings, Kurnell	330 Captain Cook Drive, Kurnell NSW 2231	<ul style="list-style-type: none"> • General Solid Waste • Virgin Excavated Natural Material (VENM) 	EPL No. 4608
Bringelly Business Hub	50 Bringelly Road, Horningsea Park NSW	<ul style="list-style-type: none"> • Virgin Excavated Natural Material (VENM) • Excavated Natural Material (ENM) • Material which complies with a Resource Recovery order/exemption 	SSD6324 and CO11994.01 (under CC SY170236C01)
Cleanaway t/a Enviroguard Pty Ltd, Erskine Park Landfill	85–87 Quarry Road, Erskine Park NSW 2759	<ul style="list-style-type: none"> • General Solid Waste (non- putrescible), including immobilised waste which is assessed as General Solid Waste (non- putrescible) and are subject to general or specific immobilisation approvals 	EPL No. 4865

Disposal Site	Address	Accepted Waste Types	EPL number/ Planning Approval reference
		<ul style="list-style-type: none"> Asbestos waste 	
Cleanaway, Kooragang Island Hazardous Waste Treatment Facility	Raven Street, Kooragang Island NSW 2304	<ul style="list-style-type: none"> Hazardous Solid Waste 	EPL No. 6124
Cleanaway, Homebush	Hill Rd & Pondage Link, Sydney Olympic Park	<ul style="list-style-type: none"> Waste types listed in Condition L3.1 of EPL 4560, including lead contaminated liquid waste. 	EPL No. 4560
Concrete Recyclers, Camellia	14 Thackeray Street, Camellia NSW 2142	<ul style="list-style-type: none"> Building and demolition waste (concrete, brick, asphalt) 	EPL No. 6664 No night tipping.
CPB Northern Road	Stage 5 and Stage 6, Northern Road, Bringelly NSW	<ul style="list-style-type: none"> Virgin Excavated Natural Material (VENM) Material which complies with a Resource Recovery order/exemption 	EPL No. 21189 and EPL No. 21248
CSR	Martins Rd, Badgerys Creek	<ul style="list-style-type: none"> Virgin Excavated Natural Material (VENM) 	EPL No. 684
Dial a Dump Industries Pty Ltd, Eastern Creek (Genesis Recycling Facility)	Honeycomb Drive, Eastern Creek NSW 2766	<ul style="list-style-type: none"> Wood waste Garden waste Waste tyres Building and demolition waste GSW (CT1) Soils 	EPL No. 20121

Disposal Site	Address	Accepted Waste Types	EPL number/ Planning Approval reference
Dial a Dump Industries Pty Ltd, Eastern Creek (Genesis Waste Facility (Landfill))	Honeycomb Drive, Eastern Creek NSW 2766	<ul style="list-style-type: none"> Asbestos contaminated wastes (including asbestos soils) Waste tyres General Solid Waste (non- putrescible) Acid sulphate soil and potentially acid sulphate soil that has been treated and meets the definition of General Solid Waste (non putrescible) 	EPL No. 13426
Elford Group, Badgerys Creek	320–400 Badgerys Creek Road, Badgerys Creek NSW 2555	<ul style="list-style-type: none"> Virgin Excavated Natural Material (VENM) Excavated Natural Material (ENM) 	EPL No. 20498 Development Application No. DA-693/2009/C
Environmental Treatment Solutions, Blayney and associated disposal sites	79 Marshalls Lane, Blayney NSW 2799	<ul style="list-style-type: none"> Waste types listed in Condition L2.1 of EPL No. 13230, including (but not limited to): Hydrocarbons waste Tyres Asbestos PCB waste Various chemical wastes Filter cake Lead Waste 	EPL No. 13230
Enviropacific Barangaroo	30–38 Hickson Road, Millers Point NSW 2000	<ul style="list-style-type: none"> Virgin Excavated Natural Material (VENM) Material which complies with a Resource Recovery order/exemption 	EPL No. 13336
Enviropacific Prestons	57 Jedda Road, Prestons, NSW 2170	<ul style="list-style-type: none"> GSW-CT1 and CT2, RSW, Special Waste, Bricks, Concrete, Asphalt, Timber, Green waste, VENM 	Take any type of waste, and they have an agreement with multiple waste transfer stations

Disposal Site	Address	Accepted Waste Types	EPL number/ Planning Approval reference
Fairfield City Council's Sustainable Resource Centre, Wetherill Park	Hassall Street, Wetherill Park NSW 2164	<ul style="list-style-type: none"> • Building and demolition waste, including terracotta roof tiles, clay bricks, and clean concrete (with or without steel) • Asphalt waste (ripped and profiled) • Virgin Excavated Natural Material (VENM) 	EPL No. 5713
Gow Street Recycling Centre	81-87 Gow Street, Padstow NSW 2211	<ul style="list-style-type: none"> • Building and demolition waste and asphalt waste, classified as General Solid Waste recyclable 	EPL No. 10943
Hi-Quality Waste Management Pty Ltd, St Marys	37 Lee Holm Road, St Marys NSW 2760	<ul style="list-style-type: none"> • General Solid Waste Recyclable, including recyclable soils and building and demolition waste (concrete, brick, asphalt) • Virgin Excavated Natural Material (VENM) 	EPL No. 5857
MET Recycling, Silverwater	Cnr Newton Street North and Carnarvon Street, Silverwater NSW 2128	<ul style="list-style-type: none"> • General Solid Waste Recyclable 	EPL No. 20948
Metropolitan Demolition and Recycling, St Peters	396 Princes Highway, St Peters NSW 2044	<ul style="list-style-type: none"> • Building and demolition waste • Asphalt waste 	EPL No. 11483
MIRVAC	Mamre Road, Kemps Creek	<ul style="list-style-type: none"> • Virgin Excavated Natural Material (VENM) 	To be confirmed once approved by the Planning Secretary
Northwest Recycling Centre	132 Burfitt Rd, Riverstone NSW 2765	<ul style="list-style-type: none"> • Green waste 	Can only take green waste

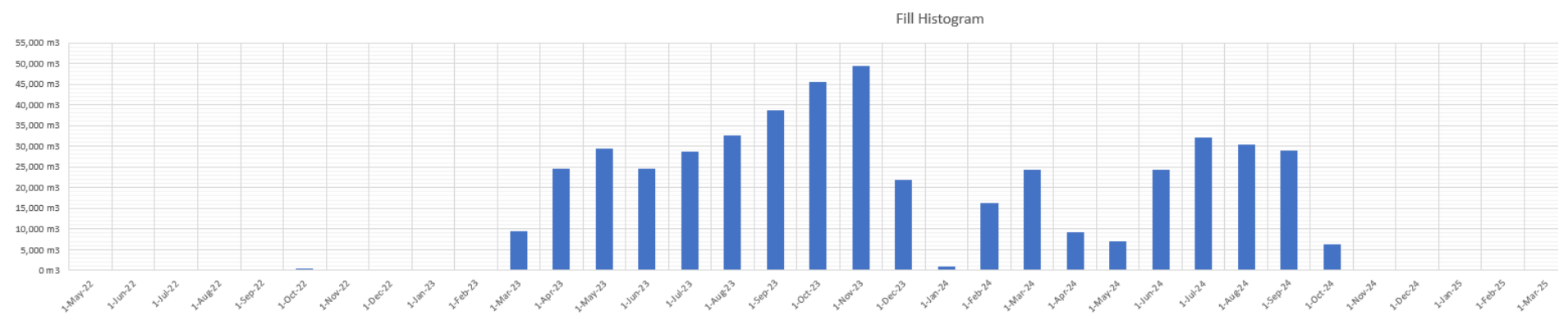
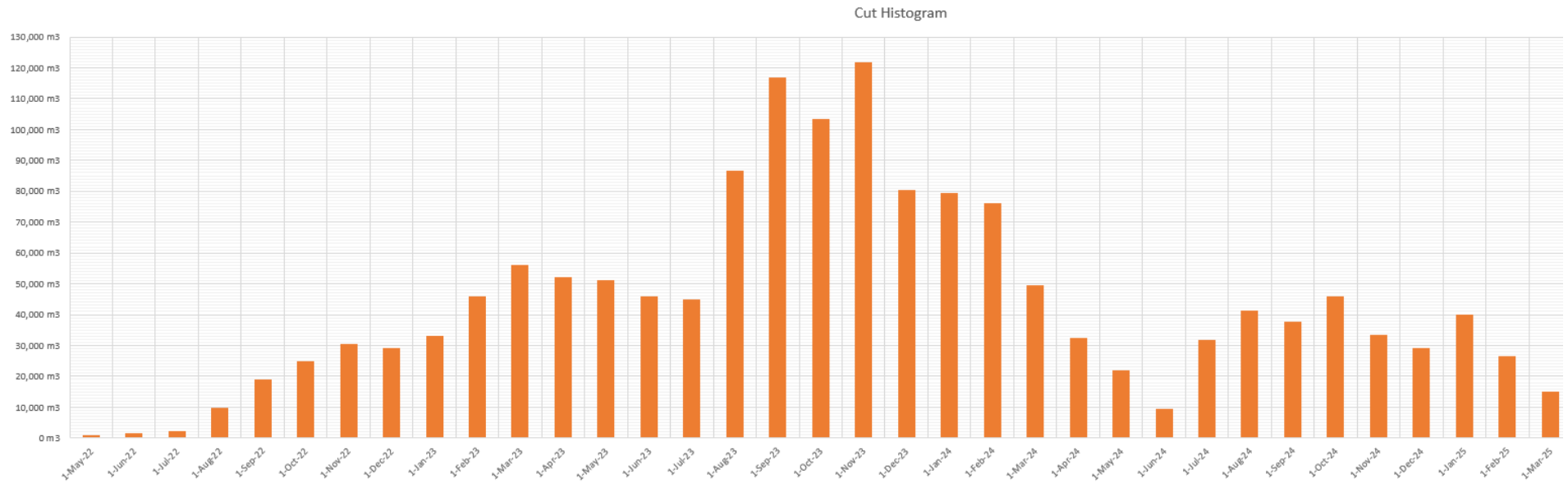
Disposal Site	Address	Accepted Waste Types	EPL number/ Planning Approval reference
Penrith Lakes Scheme	89–151 Old Castlereagh Road, Cranebrook NSW 2749	<ul style="list-style-type: none"> • Virgin Excavated Natural Material (VENM) • Excavated Natural Material (ENM) 	Development Approval (DA) 3, Modification 4, approved by DP&E on 30/04/15
Port Kembla Outer Harbour Reclamation	Port Kembla Outer Harbour	<ul style="list-style-type: none"> • Virgin Excavated Natural Material (VENM) 	Major Project Application No: 08_0249
Qube Moorebank	Moorebank Precinct East, Moorebank Avenue, Moorebank NSW 2170	<ul style="list-style-type: none"> • Virgin Excavated Natural Material (VENM) • Excavated Natural Material (ENM) • Material which complies with the November 2018 Resource Recovery order/exemption • Material which complies with the June 2019 Resource Recovery Order/Exemption 	MPE Stage 2 SSD 7628
Rock & Dirt, South Windsor	306 Racecourse Road, Clarendon NSW 2756	<ul style="list-style-type: none"> • General Solid Waste Recyclable 	EPL No. 4849
Sims Metal Management Alexandria		<ul style="list-style-type: none"> • Steel and scrap metal 	Can only take steel.
Spring Farm Development Site (Tripodi Transport)	1102 Glenee Road, Spring Farm NSW 2570	<ul style="list-style-type: none"> • Virgin Excavated Natural Material (VENM) • Excavated Natural Material (ENM) • Sandstone Only 	Development Application No. E3/94 (continuing DA)
Suez Eastern Creek	Eastern Creek Waste and Recycling Centre, Wallgrove Road	<ul style="list-style-type: none"> • Virgin Excavated Natural Material (VENM) 	EPL No. 12517

Disposal Site	Address	Accepted Waste Types	EPL number/ Planning Approval reference
	Eastern Creek NSW 2766		
Suez, Kemps Creek	1725 Elizabeth Drive, Kemps Creek NSW 2178	<ul style="list-style-type: none"> • Solid classified general dry wastes • Restricted classified wastes • Asbestos • Asbestos contaminated wastes 	EPL No. 4068
Suez, Lucas Heights	New Illawarra Road, Lucas Heights NSW 2234	<ul style="list-style-type: none"> • Excavated Natural Material (ENM) Virgin Excavated Natural Material (VENM) Clay only • Solid classified general dry waste • Asbestos • Asbestos contaminated waste 	EPL No. 5065
Sydenham Station	Sydenham Metro Gate 1, Railway Parade, Marrickville NSW 2204	<ul style="list-style-type: none"> • Virgin Excavated Natural Material (VENM) • Material which complies with a Resource Recovery order/exemption 	EPL No. 21147
Sydney Recycling Park, Kemps Creek	16–23 Clifton Avenue, Kemps Creek NSW 2178	<ul style="list-style-type: none"> • General Solid Waste 	EPL No. 12901
Tox Free St Marys	40 Christie Street, St Marys NSW 2760	<ul style="list-style-type: none"> • Absorbent pads/booms (used spill kits) • Hydraulic hoses • Fuel filters • Fuel drums (emptied) • Grease/oil/fuel stored in drums (used material) 	EPL No. 12628

Disposal Site	Address	Accepted Waste Types	EPL number/ Planning Approval reference
Tox Free, Narangba (QLD)	8–12 Krypton Street, Narangba QLD 4504	<ul style="list-style-type: none"> • Treatment and disposal of Polychlorinated • Biphenyl (PCB) impacted soil 	QLD DEHP Environmental Authority Permit number EPPR00461413
Tox Free, South Windsor	Cnr Blackman Crescent and Fairy Road, South Windsor NSW 2756	<ul style="list-style-type: none"> • Hazardous Waste 	EPL No. 4602
Tox Free, St Marys	42–46 Charles Street, St Marys NSW 2760	<ul style="list-style-type: none"> • Hazardous Waste 	EPL No. 20271
Veolia, Horsley Park	Walgrove Road, Horsley Park NSW 2175	<ul style="list-style-type: none"> • General Solid Waste • Asbestos Contaminated General Solid Waste b • Virgin Excavated Natural Material (VENM) • Excavated Natural Material (ENM) 	EPL No. 20339
Western Sydney Airport (WSA)	Western Sydney Airport, Badgerys Creek NSW	<ul style="list-style-type: none"> • Virgin Excavated Natural Material (VENM) 	Western Sydney Airport Plan and Construction Plan

Attachment 4 – Waste Tracking Register Template

Attachment 5 – Spoil Volumes Histogram



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