Waste Management and Recycling Plan

SMCSWSSJ-JHL-WEC-SU-PLN-000002

Document and Revision History

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Revisions

Revision	Date	Description	Prepared by	Reviewed by
0	03/05/2021	Draft Issued for Review	Charlotte Roberts	Vereine Masson
1	14/03/2022	Updated to include BEW	Michelle Huang	Thiru Jallendran
2	20/06/2022	Updated to include BAC	Michelle Huang	Chris McCallum
3	15/07/2022	Updated to include SMA and ER comments	Michelle Huang	Chris McCallum

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Terms of definitions

The following terms, abbreviations and definitions are used in this plan.

Terms	Explanation
ASR	Annual Sustainability Report
BCA	Building Code of Australia
CBD	Central Business District
CEMF	Construction Environmental Management Framework
CERT	Carbon Estimate and Reporting Tool
CoA	Conditions of Approval
DPE	Department of Planning & Environment
ECMP	Energy and Carbon Management Plan
EIS	Environmental Impact Statement
EPL	Environmental Protection Licence
GHG	Greenhouse Gas
FTE	Full Time Employee
ISCA	Infrastructure Council of Australia
IS	Infrastructure Sustainability
JH	John Holland Group Pty Limited
JHLOR	John Holland and Laing O'Rourke joint venture
Laing O'Rourke	Laing O'Rourke Australia Construction Pty Limited
Minister, the	NSW Minister for Planning
MMP	Materials Management Plan
MSDR	Monthly Sustainability Data Report
NCC	National Construction Code
ODS	ODS Track (web based submission management framework)
SLC	Sustainability Leadership Committee
SMCSW	Sydney Metro City and Southwest
SME's	Small and Medium sized Enterprises
SMP	Sustainability Management Plan
QSDR	Quarterly Sustainability Design Report
TfNSW	Transport for New South Wales
WMRP	Waste Management and Recycling Plan

1. Introduction

1.1 Purpose and Application

This Waste Management and Recycling Plan (WMRP) outlines John Holland and Laing O'Rourke Joint Venture's (JHLOR) approach to managing the waste and recycling sustainability requirements during the construction of the Southwest Metro Corridor works (SWMC), Bankstown Early Works (BEW) and the Bankstown and Additional Corridor works (BAC) as part of the Sydney Metro City and Southwest program of work. Specified requirements must be met in order to enhance its sustainability performance. Consistent with the Projects Sustainability Policy, the intended outcomes of the WMRP with regards to waste and recycling include:

- enhancement of sustainability performance in relation to waste and recycling;
- fulfilment of compliance obligations in relation to waste and recycling; and,
- achievement of sustainability objectives in relation to waste and recycling.

The WMRP enables the Project to manage sustainability in relation to waste in a systematic manner, and is applicable to the Project, and all of the Project's activities, products and services that the Project determines it can either control or influence considering a life cycle perspective.

This WMRP is a sub plan of the Sustainability Management Plan (SMP) and shall be read in conjunction with it.

1.2 Project Requirements

The Project is as described in the Scope of Works and Technical Criteria (SWTC). For further detail regarding the overall scope of works see SMP (SMCSWSSJ-JHL-WEC-SU-PLN-000001).

This Plan specifically addresses the requirements detailed in the Construction Environmental Management Framework (CEMF) Clauses 3.2, 17.1, 17.2 and 17.3, the Scope of Works and Technical Criteria (SWTC) Appendix B07, SWTC Appendix F08 and Schedule D1 Management requirements - Sustainability (MR-Sy), Schedule E3 – Project Planning Approvals and Conditions, Planning & Environment conditions of approvals (CoA) and Revised Environmental Mitigation Measures (REMMs) as seen in the Plan Compliance in Appendix A.

The table below specifies which documents are relevant to each portion of the works.

Table 1. Project requirement documentation for SWMC, BEW and BAC

Project	CEMF	SWTC Appendix B07	SWTC Appendix F08	Schedule D1 MR-Sy	Schedule E3	COA	REMMs
SWMC	Yes	Yes – Annexure D	N/A	Yes – Third Amendment Deed	N/A	Yes	Yes
BEW	Yes	N/A	Yes	N/A	N/A	Yes	Yes
BAC	Yes	Yes – Annexure E	N/A	Yes – Fifth Amendment Deed	Yes – Fifth Amendment Deed	Yes	Yes

1.3 Consultation

A summary of consultation undertaken as per Conditions of Approval (CoAs) C3(c) for the preparation of this WRMP is provided in Table 1. The WRMP will be updated further following receipt of comments, as required. Records of consultation will be contained in a separate document to this plan for the information of the Department of Planning and Environment (DPE) as required.

Table 1 Summary of Consultation

CoA SSI-8256	Agency Consultation	Requirements and date submitted	Key issues raised
3(c)	City of Canterbury-Bankstown	Plan for BAC submitted 15/07/2022. Comments received 08/08/2022	"Had a review of the Spoil Management Plan. Nothing major to comment on it, overall looks satisfactory and suitable for its purpose."
	Inner West Council	Revised Plan for BAC submitted 15/07/2022. Comments received 09/08/2022	No comment.

1.4 Approval

This Sub-plan will be reviewed and endorsed by the Independent Environmental Representative (ER) in accordance with CoA-A26. Sydney Metro will also review the Plan in accordance with condition 3.3e) of the Construction Environmental Management Framework (CEMF).

In accordance with CoA-C6 the Sub-plan must be submitted to the Secretary one month prior to the commencement of Construction. Construction must not commence until the Secretary has approved the Sub-plan in accordance with CoA-C7.

2. Context

2.1 Sydney Metro

Sydney Metro is Australia's biggest public transport project. Services started in May 2019 in the city's North West (Stage 1) with a train every four minutes in the peak. Metro rail Stage 2 will be extended into the CBD and beyond to Bankstown in 2024. There will be new CBD metro railway stations underground at Martin Place, Pitt Street and Barangaroo and new metro platforms under Central Station.

In 2024, Sydney will have 31 metro railway stations and a 66 km standalone metro railway system – the biggest urban rail project in Australian history. There will be ultimate capacity for a metro train every two minutes in each direction under the Sydney city centre.

Sydney Metro City and Southwest project comprises of two (2) core components:

- Chatswood to Sydenham, includes works associated with the Sydney Station Upgrade and
- Sydenham to Bankstown which received planning approval on 19 December 2018. This component includes works associated with the Southwest Metro Corridor works (SWMC), Bankstown Early Works (BEW) and Bankstown and Additional Corridor works (BAC). SWMC, BEW and BAC will be referred to as "the Project" or 'the works" in this document, or as abbreviated.

2.2 Understanding the Project's Context

The Project has determined external and internal issues that are relevant to its purpose and that affect its ability to achieve its intended sustainability outcomes.

According to Sydney Metro's Sustainability Strategy for Stage 2, their sustainability objectives relating to Waste and Recycling include:

- Resources – Waste & Materials
  - Minimise waste through the Project lifecycle.
  - Reduce materials consumption.
  - Consider embodied impacts in materials selection.
  - Maximise beneficial reuse of spoil.

An overview of the key high-level issues that are relevant is provided below.

2.2.1 Structure and interface with other management plans

The Sydney Metro Sustainability Framework as mentioned in the SMP describes how the project-wide Sustainability objectives, targets and initiatives were developed and how they interface with the Project's specific targets and initiatives, contract requirements and the Sustainability Management Plan and the sub-plan.

Extracted from Sydney Metro's Sustainability Strategy for Stage 2, the project-wide sustainability objectives can be seen in Table 2 below, the objectives relevant to this sub plan are highlighted:

Table 2. Sydney Metro Sustainability objectives (source: Sydney Metro City & Southwest Sustainability Strategy 2017 - 2024, 2019 update)

SUSTAINABILITY THEMES & OBJECTIVES	
Governance	› Demonstrate leadership by embedding sustainability objectives into decision making. › Demonstrate a high level of performance against objectives and appropriate benchmarks. › Be accountable and report publicly on performance.
Carbon & energy management	› Improve the shift toward lower carbon transport. › Reduce energy use and carbon emissions during construction. › Reduce energy use and carbon emissions during operations. › Support innovative and cost effective approaches to energy efficiency, low-carbon / renewable energy sources and energy procurement.
Environmental performance	› Reduce sources of pollution and optimise control at source to avoid environmental harm. › Comply with environmental obligations outlined in applicable project planning approvals.
Climate change resilience	› Infrastructure and operations will be resilient to the impacts of climate change.
Resources – water efficiency	› Minimise use of potable water. › Maximise opportunities for reuse of rainwater, stormwater, wastewater and groundwater.
Resources – waste & materials	› Minimise waste through the Project lifecycle. › Reduce materials consumption. › Consider embodied impacts in materials selection. › Maximise beneficial reuse of spoil.
Biodiversity conservation	› Protect and create biodiversity through appropriate planning, management and financial controls.

Extracted from Sydney Metro's Sustainability Strategy for Stage 2, the project-wide sustainability targets and initiatives can be seen in Table 3 below, the targets relevant to this sub plans are highlighted. Noting that the ISC requirements differ for SWMC, BEW and BAC as defined in Section 4.3:

Table 3. Sydney Metro Sustainability objectives and targets (source: Sydney Metro City & Southwest Sustainability Strategy 2017 - 2024, 2019 update)

SUSTAINABILITY THEMES & TARGETS	
Governance	› A high level of attainment (minimum ISCA IS Rating of 65 'Excellent') for relevant infrastructure. › 5 Star Green Star ratings for relevant buildings. › Align with a high rating using the TfNSW Sustainable Design Guidelines.
Carbon & energy management	› Achieve at least a 20 per cent reduction in carbon emissions associated with construction, when compared to business as usual.* › Offset 25 per cent of the electricity needs for the construction phase of the project. › Achieve at least a 20 per cent reduction in carbon emissions associated with operations, when compared to business as usual.* › Maximise the capture and reuse of energy generated from braking trains. › Design buildings (stations and stabling buildings) to achieve at least a 15 per cent improvement over performance requirements set out in Section J of the National Construction Code. › Source 5-20 per cent of the low voltage electricity required at above ground stations from onsite renewable energy sources where feasible. › Offset 100 per cent of the electricity needs for the operational phase of the project.
Environmental performance	› Zero major pollution incidents. › New emission standards will be identified and applied to diesel equipment and vehicles during construction.
Climate change resilience	› Mitigate all extreme and high level risks. › Mitigate a minimum of 25 per cent of medium level risks (examples include increased flooding, increased temperatures, sea level rise, and increased storm events).
Resources – water efficiency	› Reduce water use by at least 10 per cent compared to business as usual.* › Source at least 33 per cent of the water used in construction from non-potable sources. › Source at least 33 per cent of the water used in operations from non-potable sources. › Implement rainwater harvesting and reuse systems at construction sites and feasible above ground stations.

2.3 Needs and Expectations of Interested Parties

The Project has determined the interested parties that are relevant to the Project; the relevant needs and expectations of these interested parties, and which of these needs and expectations become its compliance obligations with regards to sustainability.

Substantial ongoing effort will be made to manage the Project's understanding of the needs and expectations of Interested Parties, further detail can be found in the Interface Management Plan (SMCSWSSJ-JHL-WSS-IF-PLN-000019) and the Community and Stakeholder Engagement Plan (SMCSWSSJ-JHL-WSS-CL-PLN-000023). A high level overview of the most relevant parties is provided in the table below.

Table 4. Relevant parties and their needs and expectations

Interested Party	Needs and Expectations
Transport for NSW	Environment and Sustainability Policy Environment and Sustainability Framework
Sydney Metro	Environment and Sustainability Policy Sustainability Strategy Contract documents
Parent Companies	Policies Systems Procedures
Infrastructure Sustainability Council of Australia (V1.2)	Technical Manual V1.2

2.4 Project Scope and Targets

The Project is as described in the Scope of Works and Technical Criteria (SWTC). For further detail regarding the overall scope of works see the SMP (SMCSWSSJ-JHL-WEC-SU-PLN-000001). A brief overview of the targets for relevant content in relation to waste and recycling is provided below (adapted from Sydenham to Bankstown Planning Conditions of Approval (CoA), Revised Environmental Mitigation Measures (REMMs), Schedule E3, Part B (xlvi) (a) and (b), Appendix B07 and Appendix F08 of the SWTC);

Table 5. Overview of project scope and waste and recycling targets

Waste and Recycling requirement	SWMC	BEW	BAC
Recycle or reuse at least 96% of inert and non-hazardous construction and demolition waste, and 60% of office waste is recycled or alternatively beneficially reused	X	X	X
Implement opportunities for recycling and reuse of non-putrescible general solid wastes (other than construction and demolition waste and office waste)	X	X	
Implement packaging take-back arrangements with suppliers	X	X	
Use compostable or reusable temporary erosion control devices where practicable	X	X	
Provide construction recycling facilities within the Site where practicable	X		

Waste and Recycling requirement	SWMC	BEW	BAC
Use reusable formwork where practicable	X		
Reduce spoil quantities which will be generated during the Project works and beneficially reuse spoil, including topsoil	X		
100% reuse of reusable spoil	X	X	X
Reuse appropriate site-won materials onsite	X		
Achieve or exceed the specified ISCA IS Rating Scheme version 1.2 credit requirements.	X		
Minimise the generation of waste	X	X	
Demonstrate through construction planning and construction methods, the achievement of waste minimisation, recycling and resource recovery	X	X	
Avoid the production of hazardous waste where practicable		X	
Waste requirements for BAC to be updated once App B07 (5th amendment deed) is finalised			

3. Leadership

3.1 Sustainability Leadership Committee

A Sustainability Leadership Committee (SLC) will be established on the project. The Sustainability Leadership Committee will meet on a regular basis to demonstrate leadership and commitment with respect to sustainability, including in relation to materials, by taking accountability for the effectiveness of the Project's approach to sustainability.

See the SMP (SMCSWSSJ-JHL-WES-SU-PLN-000001) for more information regarding membership and duties of the SLC.

3.2 Sustainability Policy

Project management have written a Sustainability Policy for the Project. It provides a framework for the objectives that have been set in this WMRP and includes a commitment to going beyond the mitigation of negative impacts to restorative actions (i.e. net positive benefits for society and the environment) and also to sustainable procurement.

The Project Sustainability Policy supports the Metro Environment and Sustainability Policy. For further information on the Project Sustainability Policy and Metro's Environment and Sustainability Policy see Appendix B.

3.3 Project Roles, Responsibilities and Authorities

Project management ensure that the responsibilities and authorities for relevant roles are assigned and communicated within the Project. Sustainable infrastructure cannot be delivered by one person or one discipline, it requires a multidisciplinary approach underpinned by collaboration. On the Project the following roles are critical to the management of waste management and recycling:

Table 6. Project roles and responsbilities

Role	Responsibility
Project Director	Overall responsibility and authority for; • ensuring that the management of waste and recycling conforms to the requirements of this WRMP • reporting on the performance of the Project with regards to energy and carbon, to top management and interested parties
Sustainability Manager	IS Assessor Day to day responsibility and authority for; • ensuring that the management of sustainability conforms to the requirements of this WRMP • reporting on the performance of the Project with regards to material, to project management As per the applicable compliance obligations, the Sustainability Manager must; • possess a recognised qualification relevant to the position and the SWMC Contractor's Activities and have recent relevant experience in sustainability management on projects similar to the Project Works; • have at least five years' sustainability management experience in the design and construction of sustainable infrastructure or buildings; • be available as the Principal's Representative's primary contact with the SWMC Contractor on environmental matters; • be engaged throughout the execution of the SWMC Contractor's Activities and be on or around the Site during the construction phase of the Project Works and Temporary Works with responsibilities limited to senior environmental management of the SWMC Contractor's Activities.
Sustainability Co-ordinator	IS Assessor Dedicated to assisting the Sustainability Manager fulfil their duties, must; • have at least two years' sustainability management experience in the design and construction of sustainable infrastructure or buildings
Environmental Manager	As per the Sustainability Manager, but with a focus on environmental matters
Environmental Co-ordinator	Dedicated to assisting the Environmental Manager fulfil their duties
Commercial Manager	As per the Sustainability Manager, but with a focus on commercial and procurement matters.
Design Manager	As per the Sustainability Manager, but with a focus on design matters
Construction Manager	As per the Sustainability Manager, but with a focus on construction matters

Also noteworthy are critical roles undertaken by personnel external to the JHLOR JV. They have been identified as key facilitators which the Project will proactively seek to work with, they are detailed in the table below.

Table 7. External roles and responsibilities

Role	Responsibility
Independent Certifier	Responsibility and authority for certifying compliance with all applicable sustainability compliance obligations

4. Planning

4.1 Risks and Opportunities

The Project Team have determined the sustainability risks and opportunities, including in relation to waste and recycling, associated with its activities, products and services that it can control and those that it can influence, and their associated impacts, considering a lifecycle perspective.

The Project has determined those aspects that have or can have a significant impact, by using established criteria. Comprehensive information has been consolidated within the Project's Risk and Opportunity Register prepared in accordance with the Risk Management Plan (SMCSWSSJ-JHL-WSS-RM-PLN-000010).

Lifecycle assessments will also be used ahead of detailed design to determine issues that have or can have a significant impact, with a view to identifying and prioritising opportunities.

Sustainability opportunities, including in relation to waste and recycling, will also be documented within a stand-alone Sustainability Opportunities Register (see Appendix D and E for an excerpt).

Effectively managing opportunities, including in relation to waste and recycling, is central to achieving sustainable outcomes. It is typically the management of opportunities, rather than risks, that allow compliance benchmarks to be surpassed and best practice to be achieved. In order to do this the Project has leveraged recent experience from other successful projects Laing O'Rourke and John Holland have been involved in. These relevant projects include:

- John Holland's NorthLink WA Southern Section project for Main Road Western Australia as part of the $1.2bn NorthLink WA Program. This project achieved a Leading IS Design rating of 93 (version 1.2) and in doing so achieved a number of firsts, all of which stemmed from effectively and proactively managing sustainability opportunities
- Laing O'Rourke Fulton Hogan and AECOM in an alliance with Public Transport Victoria, Metro Trains Melbourne and Vic Roads delivered the Bayswater Level Crossing Removal Project. It was the first project completed under the Level Crossing Removal Program to be certified with a sustainability rating. The project received a 'Leading' IS Design Rating with an unprecedented score of 93.5 out of 110, and set a new industry benchmark in sustainable delivery
- CPB Contractors John Holland Dragados Joint Venture for the $1.15bn Sydney Metro Northwest Tunnel and Stations Civil Works project, which achieved a Leading IS As-Built Rating of 92 (version 1.2), the highest As-Built rating achieved to date

4.2 Compliance Obligations

The Project has determined the compliance obligations related to sustainability (including waste and recycling) how these obligations apply and taken these compliance obligations into account when establishing this WRMP.

The key project sustainability compliance obligations are derived from the following contract documents:

- Scope of Works and Technical Requirements (SWTC)
- Management Requirements – Sustainability (MR-Sy)
- Construction Environmental Management Framework (CEMF)
- Revised Environmental Management Measures (REMMs)
- Planning Approval – Conditions of Approval (CoA)
- Environmental Protection License (EPL)

These key obligations also address applicable requirements arising from a complex legislative framework and numerous state guidelines including;

- *Environmental Planning and Assessment Act 1979*
- *Protection of the Environment Operations Act 1997*
- *Protection of the Environment Operations (Waste) Regulation 2014*
- *Waste Avoidance and Resource Recovery Act 2001*
- Waste Classification Guidelines, Part 1: Classifying Waste (NSW EPA, November 2014)
- Waste Classification Guidelines, Part 4: Acid Sulfate Soils (NSW EPA, November 2014)
- NSW Government's Waste Reduction and Purchasing Policy
- Environmental Best Practice Guidelines for Concreting Contractors (Department of Environment and Conservation, 2004)
- Local government guidelines for waste/recycling as appropriate
- Australian Dangerous Goods Code Edition 7.6 (ADG7) (National Transport Commission, October 2018)
- TfNSW Standard Requirements TSR E1 – Environmental Management
- General resource recovery exemptions under Part 6, Clause 51 and 51A of the Protection of the Environment Operations (Waste) Regulation 2005
- Waste Reduction and Purchasing Policy (WRAPP)

  NSW Government Resource Efficiency Policy

4.3 Objectives

The Project has established sustainability objectives, taking into account risks and opportunities and compliance obligations. These objectives have been determined in direct response to the commitments articulated in the sustainability policies. The primary sustainability objectives are detailed in the table below;

Table 8. Primary Objectives for SWMC, BEW and BAC

Project	Primary Sustainability Objective
SWMC	Achieve an Excellent IS As-built rating score of at least 55 points
BEW	Achieve a Gold TfNSW SDG Rating score (achieve a total score between 245 and 289 as per Table 6 in the TfNSW SDG v4.0)
BAC	Achieve an Excellent IS Design and As-Built rating score of at least 65

Table 6: Requirements to achieve Sustainable Design Guidelines rating

Rating	Percentage of points
Pass	All applicable P1 performance level requirements must be met.
Bronze	All applicable P1 performance level requirements and minimum 85% of the total applicable points in the P2 column.
Silver	All applicable P1 performance level requirements and minimum 85% of the total applicable points in the P3 column.
Gold	All applicable P1 performance level requirements and minimum 85% of the total applicable points in the P4 column.
Platinum	All applicable P1 performance level requirements and minimum 85% of the total applicable points in the P5 column.

Supporting the Project's Design and As-Built ISC and SDG rating objectives are a number of more specific targets. Details on all of these targets is available in the SMP. For convenience specific targets in relation to waste and recycling are presented in the table below;

Table 9. Sustainability Rating Objectives for SWMC, BEW and BAC

Project	Rating	Objective/Target
SWMC	ISC As-Built only	• Level 2 - IS Credit Was-1 'Waste management'; this aims for waste to be predicted, minimisation measures to be implemented, monitored and audited. • Level 3 - IS Credit Was-2 'Diversion from landfill', this aims for 100% of spoil, 95%* of inert waste, and 60% of office waste to be diverted from landfill • Level 1 - IS Credit Was-3 'Deconstruction/Disassembly/Adaptability'
BEW	TfNSW SDGs	• P4 - Compulsory Requirement 4 'Materials and Waste', this aims for 96%* of construction and demolition waste (by weight) to be diverted from landfill • Compliance – Compulsory Requirement 5 'Materials and Waste', this aims for 100% of spoil (by weight) to be beneficially reused

Project	Rating	Objective/Target
BAC	ISC Design and As-built	• Level 2 - IS Credit Was-1 'Waste management'; this aims for waste to be predicted, minimisation measures to be implemented, monitored and audited. • Level 3 - IS Credit Was-2 'Diversion from landfill', this aims for 100% of spoil, 90% of inert waste, and 60% of office waste to be diverted from landfill • Level 1- IS Credit Was-3 'Deconstruction/Disassembly/Adaptability'

*increase above the 90% requirement of V1.2 of the IS Technical Manual and TfNSW SDGs to match compliance obligations.

The project will aspire to significantly exceed the minimum stipulated scores outlined in the table above, or any equivalent level of performance using a demonstrated equivalent rating tool, as per Condition E42 of SSI 8256. The objectives and targets have been designed to encompass and exceed similar sustainability obligations detailed elsewhere within the contract documents. For example, the target to achieve Level 3 in relation to the IS Was-1 credit, addresses the requirements of the SWTC which requires '95% of inert waste and 60% of office waste to be to recycled or beneficially reused. This has been done to rationalise the number of objectives which the project needs to manage.

4.4 Planning Action

The Project has planned to take actions to address waste management and recycling risks and opportunities, its compliance obligations, and its objectives. The Project has determined what will be done, what resources will be required, who will be responsible, when it will be completed and how the results will be evaluated. Supporting this is a Sustainability Action Plan which will be completed by all subcontractors within 4 weeks of subcontract award.

When planning action the project has and shall apply the waste hierarchy detailed below, focusing on the waste streams with the most significant lifecycle impacts first, by prioritising (in order of preference):

1. Waste elimination
2. Waste reduction
3. Waste reuse onsite
4. Waste reuse offsite
5. Waste recycling
6. Waste to energy generation
7. Waste to landfill

Prior to reuse on site or disposal off site, materials will be classified in accordance with the *Waste Classification Guidelines, Part 1:* Classifying Waste (NSW EPA, November 2014), further details on this process are provided below in section 4.4.1 Classification of Waste Streams. No waste shall be permitted to be received on site, unless permitted by the EPL.

Actions to mitigate risks and opportunities have been planned in accordance with the Risk Management Plan (SMCSWSSJ-JHL-WSS-RM-PLN-000010). Actions to attend to sustainability opportunities have also been documented and planned within a Sustainability Opportunity Register (see Appendix C for an excerpt in relation to waste and recycling). This Register shall be a key item reviewed by the SLC.

Actions to attend to compliance obligations have been planned and documented within an Obligations Register (RAATM) (see Appendix F, G and H for an excerpt in relation to waste and recycling for SWMC, BEW and BAC respectively). Items from the Obligation Register shall be discussed by the Sustainability Leadership Committee wherever non-conformance is determined.

Actions to attend to objectives are being planned and documented within multiple trackers including:

- IS Rating Tracker (for SWMC and BAC) – See Appendix I for an excerpt
- SDG Rating Tracker (for BEW) – See Appendix J for an excerpt
- Program Tracker to track high level deliverables for the Project See Appendix K for an excerpt

These are excel-based documents for submission management and deliverables associated with the IS Rating, the SDGs Rating and contract deliverables. These trackers have been designed to assist in the management of the large number of deliverables for the sustainability ratings and contract requirements. Review of these trackers will be undertaken weekly and have been tailored to prompt actions from the Sustainability team or deliverables that must be requested from multiple parties and allows what, when, who and how to be defined for each deliverable (see Appendix J for an excerpt). These trackers are key items reviewed within regular sustainability leadership committee meetings and are also shared with the client when requested.

Note, all registers/trackers detailed within this section will be live documents and will be regularly reviewed and adapted as new information comes to hand. Where possible registers/trackers centralise information from multiple management plans, removing duplication and providing improved flexibility. Increasing efficiency, performance and outcomes

4.4.1 Classification of Waste Streams

Where waste cannot be avoided, reused or recycled it will be classified and appropriate disposal will then occur. The classification of waste is undertaken in accordance with the EPA's Waste Classification Guidelines Part 1: Classifying Waste (NSW EPA, 2014). This document identifies six classes of waste as defined in clause 49 of Schedule 1 of the *Protection of the Environment Operations Act 1997* (POEO Act):

- Special Waste
- liquid waste
- hazardous waste
- restricted solid waste
- general solid waste (putrescible)
- general solid waste (non-putrescible)

The steps below will be implemented to determine which of the above classifications applies to the Projects waste. Once a classification has been established under a particular step, the waste will be taken to have that classification and will be managed accordingly.

Step 1: Is it 'special waste'?

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

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

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

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

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

Step 3: Has the waste already been pre-classified by the NWS EPA?

The EPA has pre-classified several commonly generated wastes in the categories of hazardous, general solid waste (putrescibles) and general solid waste (non-putrescibles). If a waste is listed as 'pre-classified', no further assessment is required. Details are provided in the guidelines.

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

If the waste is not special waste, liquid waste or pre-classified, establish if it has certain hazardous characteristics and can therefore be classified as hazardous under the classes or divisions of the *Transport of Dangerous Goods Code* which include explosives, flammable solids, substances liable to spontaneous combustion, oxidizing agents, toxic substances and corrosive substances.

Step 5: Chemical assessment to determine classification?

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

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

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

If the waste is chemically assessed as general solid waste, a further assessment is available to determine whether the waste is putrescible or non-putrescible. The assessment determines whether the waste is capable of significant biological transformation. If this assessment is not undertaken, the waste must be managed as general solid waste (putrescible).

4.4.2 Waste Disposal, Recycling and Reuse Locations

Waste disposal and potential offsite recycling or spoil reuse locations have been identified by the Project, and written confirmation has been received from each place of disposal confirming that they can lawfully receive the types of waste proposed (i.e. the waste facility sites are licensed by the EPA for storage, treatment, processing, reprocessing or disposal of the subject waste). See Appendix L for an excerpt register of places that waste will be transported to by the Project.

See the Construction Environmental Management Plan (SMCSWSSJ-JHL-WEC-EM-PLN-000011) and Spoil Management Plan (SMCSWSSJ-JHL-WEC=EM-PLN-XXXXXX) for further details on spoil disposal management.

Recyclable wastes, including paper at site offices, and other wastes, will be stored separately from other wastes.

4.4.3 Deconstruction Good Practice

A deconstruction plan for the SWMC works is currently being developed and a draft will be included in the next revision of the plan in Appendix M. The Project will apply the Deconstruction Good Practice waste hierarchy as applicable, as detailed below;

- Document materials and methods for deconstruction. As-built drawings, labelling of connections and materials, within the specifications and/or operational manuals (or similar).
- Select materials using the precautionary principle. Materials that are chosen with consideration for future impacts and that have high quality will retain value and/or be more feasible for reuse and recycling.
- Design connections that are accessible. Visually, physically, and ergonomically accessible connections will increase efficiency and avoid requirements for expensive equipment or extensive environmental health and safety protections for workers.
- Minimize or eliminate chemical connections. Binders, sealers and glues on, or in materials, make them difficult to separate and recycle, and increase the potential for negative human and ecological health impacts from their use.
- Use bolted, screwed and nailed connections. Using standard and limited palettes of connectors will decrease tool needs, and time and effort to switch between them.
- Separate mechanical, electrical and plumbing (MEP) systems. Disentangling MEP systems from the assemblies that host them makes it easier to separate components and materials for repair, replacement, reuse and recycling.
- Design to the worker and labour of separation. Human-scale components or conversely attuning to ease of removal by standard mechanical equipment will decrease labour intensity and increase the ability to incorporate a variety of skill levels.
- Simplicity of structure and form. Simple open-span structural systems, simple forms, and standard dimensional grids will allow for ease of construction and deconstruction in increments.
- Interchangeability. Using materials and systems that exhibit principles of modularity, independence, and standardization will facilitate reuse.
- Safe deconstruction. Allowing for movement and safety of workers, equipment and site access, and ease of materials flow will make upgrade and disassembly more economical and reduce risk.

5. Implementation

5.1 Resources

The Project has determined and made provision for the resources needed for the establishment, implementation, maintenance and continual improvement of the waste and recycling management system on the Project. Key human resources have been allocated as per Section 3 Roles, Responsibilities and Authorities.

5.2 Competence and Awareness

The Project shall:

- Use Training Needs Analysis to determine the necessary competence of persons doing work under its control that affects its materials performance and its ability to fulfil its compliance obligations;
- Obtain records of suitable education, training, experience and verification of competency to ensure that these persons are competent on the basis of appropriate education, training or experience;
- Determine any further training needs associated with waste;
- where applicable, take actions to acquire the necessary competence, and evaluate the effectiveness of the actions taken

The Project shall ensure, via the Project Induction, Tool Box Talks and Pre-Start Meetings (or similar) that persons doing work under the Projects control are aware of the:

- sustainability policy;
- the significant waste issues and related actual or potential impacts associated with their work, including in relation to waste;
- their contribution to the effectiveness of waste management, including the benefits of enhanced waste performance;
- the implications of not conforming with the waste management requirements, including not fulfilling the organisation's compliance obligations

5.3 Knowledge Sharing

Effective and ongoing waste and recycling knowledge sharing has occurred within the Project team and with the client, supply chain and parent organisations during the tender and target costing phases. Knowledge sharing will continue post-award with these and other key stakeholders and wider industry.

Knowledge sharing will take many forms: informal and formal, spoken and written. It will be encouraged at all times, and will involve the sustainability leadership committee, facilitated workshops and regular meetings in order to foster mutually beneficial relationships with key stakeholders and subject matter experts.

Knowledge sharing will be undertaken in a timely and targeted manner to enable enhanced outcomes to be achieved. While the knowledge sharing process is ongoing, critical junctures are identified below;

- Stakeholder engagement
- Design management
- Procurement
- Construction planning

See the Interface Management Plan (SMCSWSSJ-JHL-WSS-IF-PLN-000019) and the Community and Stakeholder Engagement Plan (SMCSWSSJ-JHL-WSS-CL-PLN-000023) for further information.

5.4 Decision Making

JHLOR ensures that decision making in relation to significant issues is characterised by:

- A consideration of options including business-as-usual and other proven approaches taken in comparable situations.
- An evaluation of options that considers environmental, social and economic aspects through multi-criteria analysis or other scored means
- An evaluation of options based on the useful forecast life of the infrastructure asset (i.e. 100-year design life).

Generally, when determining what opportunities (derived from knowledge sharing activities) to include, the following question applies:

- Will undertaking the opportunity reduce capital expenditure and comply with applicable requirements?

Where the answer is ‘yes’, the opportunity will typically be included automatically. Other opportunities that may require additional expenditure, or modification/relaxation of applicable requirements are considered for inclusion based on the following questions (a consensus on the answers to these questions will generally be sought during SLC meetings):

- Will undertaking the opportunity reduce whole-of-life cost or impacts?
- Will undertaking the opportunity attend to a material risk or opportunity for the Project, the client or other stakeholders?

Accordingly, once decision making in relation to opportunities has occurred, the opportunities’ status will be updated in the Opportunity Register (Appendix C) as either ‘Included’ or ‘Abandoned’. If the answers to the relevant questions are unclear, the opportunity status will remain 'Under consideration' and further information will be sought.

6. Performance Evaluation

6.1 Monitoring Measurement and Analysis

The Project team shall monitor, measure, analyse and evaluate its waste, reuse and recycling performance. The Project shall undertake weekly sustainability (including waste) inspections during construction.

Monitoring in relation to waste, reuse and recycling will also be undertaken in accordance with the applicable compliance requirements.

Monitoring shall include details pertaining to;

- Types and quantity of waste generated
- Types and quantity of waste reused or recycled
- Types and quantity of waste disposed to landfill
- Percentage of waste reused or recycled
- Quantity of spoil generated

Preliminary waste estimates for construction are included below and are based on SDR Cert/ 40% cost plan (stage 1). Assumptions are based on 5% wastage of materials and similar projects where applicable. Each waste type represents an opportunity to apply the waste hierarchy (eliminate, reduce, reuse, recycle, waste to energy, landfill).

Table 10. Waste estimates for construction for SWMC, BEW and BAC

Waste Type	SWMC Estimate of Quantities (tonnes or other weight noted)	BEW Estimate of Quantities (tonnes or other weight noted)	BAC Estimate of Quantities (tonnes or other weight noted)	Dispose or Recycle
General mixed construction waste	254m^3	-	TBA	Recycle
Concrete	248m^3	108m3	1285	Recycle
Waste Soil	6653	-	65,218	Recycle
Ballast	1172	38.25	TBA	Recycle
Timber/wood	80m^3	-	4	Recycle
Hazardous Waste	1,111	0	539	Dispose
Restricted Waste	TBA	589	215	Dispose
Liquid Waste	800	0	2,900	Recycle
Metals	108	93.2	27	Recycle
Asphalt	72	N/A	5	Recycle
Masonry	30	N/A	49	Recycle
Tiles	0	0	2	Recycle
Paper/Cardboard	100	-	TBA	Recycle
Plastic	4.95	1864m2	TBA	Recycle
Oil & Lubricants	5m^3	5m3	TBA	Recycle
Tyres	Volumes as generated	Volumes as generated	Volumes as generated	Recycle
Solvents	Volumes as generated	Volumes as generated	Volumes as generated	Dispose
Glass	4.15	-	TBA	Recycle
Organic waste and food waste	100m^3	25 m3	TBA	Recycle
Co-mingled recyclables	250	62.5	TBA	Recycle
Cables	4.25	2.5	TBA	Recycle
e-Waste	Volumes as generated	Volumes as generated	Volumes as generated	Recycle
Vegetation	254m^3	-	TBA	Recycle

6.2 Reporting

The Project shall evaluate its sustainability performance, including in relation to waste, reuse and recycling. The Project shall communicate relevant waste and recycling performance information both internally and externally, as identified in its communication processes and as required by its compliance obligations. The Project shall evaluate and document compliance within Project reports and take action if needed, reports include;

Table 11. Reporting requirements for SWMC, BEW and BAC

SWMC	BEW	BAC
Monthly Project Reports	N/A	Monthly Project Reports
Monthly Sustainability Data Report (MSDR)	N/A	Monthly Sustainability Data Report (MSDR)
	N/A	Quarterly Sustainability Report (QSR)
Annual Sustainability Report (ASR)	N/A	Annual Sustainability Report (ASR)

Compliance records will be retained centrally and will include:

- Records of inspections in relation to waste and reuse management and recycling activities, including weekly inspections of waste storage facilities
- Records detailing the beneficial re-use or recycling of material either within the project or at off-site locations
- Waste tracking forms and dockets for any material disposed of to land-fill sites
- Waste register detailing the date, types and quantities of waste disposed and the receiving facility

6.3 Audit

The Project shall establish, implement and maintain an audit programme for the Project, including the frequency, methods, responsibilities, planning requirements and reporting of its audits. Sustainability audits will be conducted at least quarterly with at least one per year being 'independent'. The scope of the audits may vary but it is important that the most material issues are audited regularly during the rating period. Sustainability audits should cover the most material environmental, social and economic issues. 'Regularly' needs to be described and justified for each project. The audit reports must demonstrate that these requirements have been fulfilled.

As per IS v1.2 'Man-3', 'Man-4' and 'Man-5' requirements, the Project shall be audited at planned intervals as per the to provide information on whether the Project:

- is meeting its compliance obligations, refer to SMP;
- conforms to the WMRP; and,
- determine if the WMRP is effectively implemented and maintained.

In addition, waste specific audits shall include as per IS v1.2 'Was-1' Level 2 requirements:

- Annual review covering systems used to manage waste and the data recording and reporting. Must be an objective assessment of the accuracy and completeness of reported waste information with the aim to provide confidence that the reported information represent a faithful, true, and fair account of waste management practices and performance. Must be undertaken by a suitably qualified person (someone with at least five years' waste management experience, or a NABERS Assessor, or equivalent)

- Auditing to final destination must be undertaken at least 6 monthly for construction. Final destination means at least to a waste facility where the waste is transformed into another product or material or into landfill. Physical sorting of waste is not considered a final destination. The audit should include a physical/visual verification of waste destinations.

Refer to environmental waste audit requirements in the Construction Environmental Management Plan (CEMP) for 6-monthly EMS and CEMP internal audit processes.

6.4 Management Review

Project Management shall review the implementation of the WMRP at Project level, at planned intervals, to ensure its continuing suitability, adequacy and effectiveness, including in relation to waste and recycling. Reviews will be performed by the sustainability leadership committee.

The management review shall include consideration of:

- the status of actions from previous management reviews;
- changes in:
  - external and internal issues that are relevant to waste and recycling;
  - the needs and expectations of interested parties, including compliance obligations;
  - risks and opportunities;
- the extent to which sustainability objectives have been achieved;
- information on the Project's waste, reuse and recycling performance, including trends in:
  - nonconformities and corrective actions;
  - monitoring and measurement results;
  - fulfilment of its compliance obligations;
  - audit results;
- adequacy of resources;
- relevant communication(s) from interested parties, including the community; and,
- opportunities for continual improvement

The outputs of the management review shall include:

- conclusions on the continuing suitability, adequacy and effectiveness of the WMRP;
- decisions related to continual improvement opportunities;
- decisions related to any need for changes to the WMRP, including resources;
- actions, if needed, when waste and recycling objectives have not been achieved;
- opportunities to improve integration of the WMRP with other Project processes, if needed; and,
- any implications for the strategic direction of the Project.

The Project shall retain documented information as evidence of the results of management reviews.

7. Improvement

When a nonconformity occurs, including in relation to waste and recycling, the Project shall:

- react to the nonconformity and, as applicable:
  - take action to control and correct it;
  - deal with the consequences, including mitigating adverse sustainability impacts;
- evaluate the need for action to eliminate the causes of the nonconformity, in order that it does not recur or occur elsewhere, by:
  - reviewing the nonconformity;
  - determining the causes of the nonconformity;
  - determining if similar nonconformities exist, or could potentially occur;
- implement any action needed;
- review the effectiveness of any corrective action taken; and,
- make changes to the WRMP, if necessary.

Corrective actions shall be appropriate to the significance of the effects of the nonconformities encountered, including the sustainability outcomes(s).

The Project shall retain documented information as evidence of:

- the nature of the nonconformities and any subsequent actions taken; and,
- the results of any corrective action

Appendix A Plan Compliance

Project	Document	Deed Clause	Description	Where Addressed
All	S2B CEMF	3.2 (c)	Depending on the scope of the works, the SMP will also include, as a separate sub plan: (ii) A Waste Management & Recycling Plan (WRMP)	This WRMP
All	S2B CEMF	17.1	Waste Objectives	Section 2.2
All	S2B CEMF	17.1 (a)	The following waste objectives will apply to construction:	Section 2.2
All	S2B CEMF	17.1 (a)(i)	Minimise waste throughout the project lifecycle; and	Section 2.2,
All	S2B CEMF	17.1 (a)(ii)	Waste management strategies will be implemented in accordance with the Waste Avoidance and Resource Recovery Act 2001 management hierarchy as follows: • Avoidance of unnecessary resource consumption; • Resource recovery (including reuse, reprocessing, recycling and energy recovery); and • Disposal.	Section 2.4, section 4.3 and Section 4.4
All	S2B CEMF	17.1 (b)	Targets for the recovery, recycling or reuse of construction waste, and beneficial reuse of spoil will be provided by the Principal Contractor.	Section 2.4, Section 4.3
All	S2B CEMF	17.2	Waste Implementation	This WRMP
All	S2B CEMF	17.2 (a)	Principal Contractors will develop and implement a Waste Management and Recycling Plan which will include as a minimum:	This WRMP
All	S2B CEMF	17.2 (a)(i)	The waste management and recycling mitigation measures as detailed in the environmental approval documentation;	Section 4.2, Section 4.4.2
All	S2B CEMF	17.2 (a)(ii)	The responsibilities of key project personnel with respect to the implementation of the plan;	Section 3.3
All	S2B CEMF	17.2 (a)(iii)	Waste management and recycling monitoring requirements;	Section 6.1
All	S2B CEMF	17.2 (a)(iv)	A procedure for the assessment, classification, management and disposal of waste in accordance with the Waste Classification Guidelines (DECC, 2008); and	Section 4.2
All	S2B CEMF	17.2 (a)(v)	Compliance record generation and management.	Section 4.2
All	S2B CEMF	17.2 (b)	Principal Contractors will undertake the following waste monitoring as a minimum:	This WRMP
All	S2B CEMF	17.2 (b)(i)	Weekly inspections will include checking on the waste storage facilities on site; and	Section 6.1

Project	Document	Deed Clause	Description	Where Addressed
All	S2B CEMF	17.2 (b)(ii)	All waste removed from the site will be appropriately tracked from 'cradle to grave' using waste tracking dockets.	Section 6.2
All	S2B CEMF	17.2 (c)	Principal Contractors will report all necessary waste and purchasing information to TfNSW as required for TfNSW to fulfil their WRAPP reporting requirements.	Section 4.2
All	S2B CEMF	17.2 (d)	Compliance records will be retained by the Principal Contractors in relation to waste management including records of inspections and waste dockets for all waste removed from the site.	Section 6.2
All	S2B CEMF	17.3	Waste Mitigation	This WRMP
All	S2B CEMF	17.3 (a)	Examples of waste management and recycling mitigation measures include:	This WRMP
All	S2B CEMF	17.3 (a)(i)	All waste materials removed from the sites will be directed to an appropriately licensed waste management facility;	Section 4.4, Section 6.2, Section 6.3 and Appendix L
All	S2B CEMF	17.3 (a)(ii)	The use of raw materials (noise hoarding, site fencing, etc...) will be reused or shared, between sites and between construction contractors where feasible and reasonable; and	Section 4.4.3
All	S2B CEMF	17.3 (a)(iii)	Recyclable wastes, including paper at site offices, will be stored separately from other wastes.	Section 4.4.2
All	Conditions of Approval (CoA)	C3	The CEMP Sub-plans must be prepared in consultation with the relevant government agencies identified for each CEMP Sub-plan and be consistent with the CEMF and CEMP referred to in Condition C1: (c) Waste and Spoil	This WRMP, see also Spoil Management Plan
All	CoA	E73	Any items or infrastructure that are salvageable must be identified in the relevant CEMP Sub-plan (Condition C3). Note: reuse of items may include signal boxes, indicators, ballast or other rail infrastructure. These items should be offered to Sydney Trains or reuse.	Section 6
All	CoA	E74	The importation of waste and the storage, treatment, processing, reprocessing or disposal of such waste must comply with the Protection of the Environment Operations Act 1997, under the Protection of the Environment Operations (Waste) Regulation 2014, and orders or exemptions made under the regulation.	Section 4.2

Project	Document	Deed Clause	Description	Where Addressed
All	CoA	E75	Waste must only be exported to a site licensed by the EPA for the storage, treatment, processing, reprocessing or disposal of the subject waste, or in accordance with a Resource Recovery Exemption or Order issued under the Protection of the Environment Operations (Waste) Regulation 2014, or to any other place that can lawfully accept such waste.	Section 4.4.2
All	CoA	E76	All waste must be classified in accordance with the EPA's Waste Classification guidelines, with appropriate records and disposal dockets retained for audit purposes.	Section 4.4.1
All	Revised Environmental Management Measures (REMMs)	WM1	Detailed design would include measures to minimise excess spoil generation. This would include a focus on optimising the design to minimise spoil volumes, and the reuse of material on-site.	Section 2.4
All	REMMs	WM2	A recycling target of at least 90 per cent would be adopted	Section 2.4, Section 4.3
All	REMMs	WM3	Spoil would be managed in accordance with the spoil management hierarchy	Section 4.4.2, see also Spoil Management Plan
All	REMMs	WM4	Target 100 per cent reuse of reusable spoil	Section 2.4, Section 4.3
All	REMMs	WM5	Construction waste would be minimised by accurately calculating materials brought to the site and limiting materials packaging.	Section 6
All	REMMs	WM6	All waste would be assessed, classified, managed and disposed of in accordance with the Waste Classification Guidelines (EPA, 2014).	Section 6, Section 4.4.1, Section 4.4.2
All	REMMs	WM7	Waste segregation bins would be located at various locations within the project area, if space permits, to facilitate segregation and prevent cross contamination.	Section 4.4.2

Appendix B Policies

Transport for NSW

Environment & Sustainability Policy

sydney METRO

This Policy reflects a commitment in our delivery of the Sydney Metro program to:

- Align with, and support, Transport for NSW (TfNSW) Environment & Sustainability Policy.
- Optimise sustainability outcomes, transport service quality, and cost effectiveness.
- Develop effective and appropriate responses to the challenges of climate change, carbon management, resource and waste management, land use integration, customer and community expectation, and heritage and biodiversity conservation.
- Be environmentally responsible, by avoiding pollution, enhancing the natural environment and reducing the project ecological footprint, while complying with all applicable environmental laws, regulations and statutory obligations.
- Be socially responsible by delivering a workforce legacy which benefits individuals, communities, the project and industry, and is achieved through collaboration and partnerships.

To deliver on these commitments, the Sydney Metro team will:

Industry leadership

- Implement coordinated and transparent decision making, by engaging with stakeholders and suppliers, encouraging innovation and demonstrating sustainability leadership.
- Explore new benchmarks for the transport infrastructure sector by requiring high standards from our designers, contractors and suppliers, building on experience gained through development of Sydney Metro Northwest.

Community and customer

- Provide accessible, safe, pleasurable, and convenient access and transport service for all customers.
- Establish positive relationships with community and stakeholders to maximise opportunities to add value to local communities.

Land use integration and place making

- Create desirable places, promote liveability and cultural heritage, and optimise both community and economic benefit.
- Balance transit oriented development opportunities with stakeholder expectations.

Embedding environmental and social sustainability

- Establish robust sustainability objectives and targets.
- Maintain an environmental management system that is integrated into all our project activities.
- Ensure thorough and open environmental assessment processes are developed and maintained.
- Develop and maintain an environmental management framework to embed best practice pollution management and sustainable outcomes during construction.
- Apply effective assurance processes to monitor performance against the project environment and sustainability objectives and identify appropriate reward or corrective action, as required.
- Apply environment and sustainability specific processes to the procurement of delivery activities.

Accountability

- Undertake public sustainability reporting.
- Hold employees and contractors accountable for proactively meeting their environmental and social sustainability responsibilities.
- Provide appropriate training and resources necessary to meet our responsibilities.

Rodd Staples
Program Director, Sydney Metro

SM ES-ST-209 Sydney Metro Environment and Sustainability Policy

Sustainability Policy

August 2018

Our vision

The JHLOR JV understand that achieving sustainability is an integral part of delivering our works. We will seek opportunities to go beyond current legal requirements and business as usual to deliver value for the project's stakeholders.

This Policy sits alongside our Health and Safety, Quality, Environment, Supply Chain and People policies as part of the JHLOR JV policy framework, underpinned by our Code of Conduct.

Our approach

JHLOR JV will work collaboratively with our client, stakeholders and the supply chain to ensure the best sustainable outcomes for the project and ultimately the asset owner are attained.

Our pledge

The JHLOR JV are committed to achieving positive environmental, social and economic outcomes in relation to the SSJ Project. We will achieve this by:

- Implementing coordinated and transparent decision making, by engaging with stakeholders and suppliers, encouraging innovation and demonstrating sustainability leadership.
- Establishing robust sustainability objectives and targets, and applying effective assurance processes to monitor performance.
- Requiring high standards from our designers, contractors and suppliers
- Adopting ethical and responsible procurement practices by incorporating environmental and social performance in subcontractor selection; adopting a preference for local industry participation and encouraging the supply chain to adopt sustainability practices.
- Developing effective and appropriate responses to the challenges of climate change, carbon management, resource and waste management, land use integration, customer and community expectation, and heritage and biodiversity enhancement.
- Assessing and managing all environmental risks.
- Being socially responsible and delivering a workforce legacy which benefits individuals, communities, the project and industry, and is achieved through collaboration and partnerships.
- Creating desirable places, promoting liveability and cultural heritage, and optimising both community and economic benefit.
- Consolidating upon existing relationships with community and stakeholders to maximise opportunities to add value to local communities.
- Providing the appropriate training and resources necessary to meet our sustainability responsibilities
- Undertaking public sustainability reporting.

Our policies are regularly updated to ensure currency and strive for best practice as our environment evolves.

John Holland Group and Laing O'Rourke fully endorse this JHLOR JV Policy.

Chris Jones, Operations Manager
John Holland Group

Patrick Cashin, Director
Laing O'Rourke Australia

Darren Hayward, Rail Manager
John Holland Group

David D Robotham, General Manager – Rail
Laing O'Rourke Australia

SMCSWSSJ-JHL-WSS-WD-POL-000004

Appendix C Objectives

The following is an excerpt from the draft ISCA Scorecard prepared during the Tender phase and draft SDG Scorecard prepared during the SDG design phase by Metron T2M. The scorecards are a stand-alone spreadsheet which shall remain live until project completion is achieved. Details shall be updated upon finalising the weightings assessment. Note: Was-3 will be a targeted credit and this change will be reflected in the finalised weighting assessment.

SWMC

Category	Credit		Materiality Score	Score Possible	Target Level	Target Score
Waste						
Was-1	Waste management		2	2.20	2/2	2.20
Was-2	Diversion from landfill		2	3.85	3/3	3.85
Was-3	Deconstruction/ Disassembly/ Adaptability		2	1.65	1/3	0.55
		Sub-total		7.70		6.60

BEW

Initiative #	Theme	Description	Threshold	Is threshold triggered ? Help	Is the requirement within scope ? Help	Comments
4	*Materials and waste*	90% of construction waste and demolition waste (by weight) to be diverted from landfill for all projects with a CapEx > $15million.	All projects with a CapEx > $15million	Yes	Yes	Target: P4 Weighted score: 18 At least 96% of inert and non-hazardous construction and demolition recyclable waste, excluding spoil to be recycled or reused.
5	*Materials and waste*	100% of usable spoil (by weight) to be beneficially reused for all projects generating >300m³ of spoil.	All project generating >300m³ of spoil	Yes	Yes	Target: Compliance The contractor must beneficially reuse 100% of reusable spoil, including topsoil, in accordance with the spoil hierarchy in environmental documents.

BAC

Category	Credit		Materiality Score	Score Possible	Target Level	Target Score
Was-1	Waste management		2	1.68	2/2	1.68
Was-2	Diversion from landfill		2	2.93	3/3	2.93
Was-3	Deconstruction/ Disassembly/ Adaptability		2	1.26	1/3	0.42
		Sub-total		5.86		5.03

Appendix D Opportunity Register – SWMC and BEW

The following is an excerpt from the Sustainability Opportunity Register. The Sustainability Opportunity Register is a stand-alone register which shall remain live until project completion is achieved. Further details shall be populated during the course of design.

Project	Category	Title	Description	Status	Materiality
SWMC	**Waste and Recycling**	**Optimise C&D Waste**	There is an opportunity to apply the waste hierarchy (eliminate (e.g. pre-cast systems, reusable form, packaging take back), reuse (preferably onsite), recycle, waste to energy, dispose) so that waste is diverted from landfill	Included	Medium
BEW	**Waste and Recycling**	**Optimise C&D Waste**	There is an opportunity to apply the waste hierarchy (eliminate (e.g. pre-cast systems, reusable form, packaging take back), reuse (preferably onsite), recycle, waste to energy, dispose) so that waste is diverted from landfill	Included	Medium
SWMC	**Waste and Recycling**	**Optimise Spoil Handling**	There is an opportunity to apply the waste hierarchy (eliminate e.g. avoid disturbing large areas)and utilise geogrid for track formation.	Included	High
BEW	**Waste and Recycling**	**Optimise Spoil Handling**	There is an opportunity to apply the waste hierarchy (eliminate e.g. avoid disturbing large areas)and utilise geogrid for track formation.	Included	High
SWMC	**Waste and Recycling**	**Divert Waste from Landfill**	There is an opportunity to reduce single use material consumption on site.	Included	Medium
BEW	**Waste and Recycling**	**Divert Waste from Landfill**	There is an opportunity to reduce single use material consumption on site.	Included	Medium

Project	Category	Title	Description	Status	Materiality
SWMC	**Waste and Recycling**	**Divert Waste from Landfill**	There is an opportunity to divert soft plastic from landfill by recycling it through REDCycle (https://www.redcycle.net.au/) or Plastic Police (https://crossconnections.com.au/plastic-police-partnerships/)	Under Consideration	Medium
BEW	**Waste and Recycling**	**Divert Waste from Landfill**	There is an opportunity to divert soft plastic from landfill by recycling it through REDCycle (https://www.redcycle.net.au/) or Plastic Police (https://crossconnections.com.au/plastic-police-partnerships/)	Under Consideration	Medium
SWMC	**Waste and Recycling**	**Divert Waste from Landfill**	There is an opportunity to be part of the Return and Earn scheme, and donate proceeds to a charity organisation.	Under Consideration	Medium
BEW	**Waste and Recycling**	**Divert Waste from Landfill**	There is an opportunity to be part of the Return and Earn scheme, and donate proceeds to a charity organisation.	Under Consideration	Medium
SWMC	**Waste and Recycling**	**Recycled Geofab**	Recycled geofab in place of BAU	Abandoned	Low
BEW	**Waste and Recycling**	**Recycled Geofab**	Recycled geofab in place of BAU	Under Consideration	Low
SWMC	**Waste and Recycling**	**Coffee Cup Recycling**	Establish coffee cup recycling on site	Included	
BEW	**Waste and Recycling**	**Coffee Cup Recycling**	Establish coffee cup recycling on site	Included	
SWMC	**Waste and Recycling**	**Mask and Gloves Recycling**	Establish disposable mask and gloves recycling for Rapid Antigen Testing clinic on site	Included	
BEW	**Waste and Recycling**	**Mask and Gloves Recycling**	Establish disposable mask and gloves recycling for Rapid Antigen Testing clinic on site	Included	

Project	Category	Title	Description	Status	Materiality
SWMC	**Waste and Recycling**	**Cigarette butt recycling**	Establish cigarette butt recycling bin on site	Included	
BEW	**Waste and Recycling**	**Cigarette butt recycling**	Establish cigarette butt recycling bin on site	Under Consideration	
SWMC	**Waste and Recycling**	**Batteries and old technology recycling**	Establish batteries and old tech recycling bin on site	Under Consideration	
BEW	**Waste and Recycling**	**Batteries and old technology recycling**	Establish batteries and old tech recycling bin on site	Under Consideration	

Appendix E Opportunity Register – BAC

To be developed

Appendix F Obligations Register - SWMC

The following is an excerpt from the Sustainability Obligations Register pertaining to waste and recycling management obligations. This excerpt includes detail of the applicable materials obligations. The Register is a stand-alone register which shall remain live until project completion is achieved.

Source Document	Requirement Clause	Requirement	Document	Description	Responsibility	Timing
CEMF	3.2 c ii	A Waste Management & Recycling Plan	WMRP	Waste and Recycling	Sustainability Manager	Design and Construction
CEMF	17	Waste Management and Recycling	WRMP	Waste and Recycling	Sustainability Manager	Design and Construction
CEMF	17.1	Waste Objectives	WRMP	Waste and Recycling	Sustainability Manager	Design and Construction
CEMF	17.1 a	The following waste objectives will apply to construction: i. Minimise waste throughout the project life-cycle. ii. Waste management strategies will be implemented in accordance with the Waste Avoidance and Resource Recovery Act 2001 management hierarchy as follows: - Avoidance of unnecessary resource consumption. - Resource recovery (including reuse, reprocessing, recycling and energy recovery). - Disposal.	WRMP	Waste and Recycling	Sustainability Manager	Design and Construction
CEMF	17.1 b	Targets for the recovery, recycling or reuse of construction waste, and beneficial reuse of spoil will be provided by the Principal Contractor.	WRMP	Waste and Recycling	Sustainability Manager	Design and Construction
CEMF	17.2	Waste Implementation	WRMP	Waste and Recycling	Sustainability Manager	Design and Construction
CEMF	17.2 a	Principal Contractors will develop and implement a Waste Management and Recycling Plan which will include as a minimum: i. The waste management and recycling mitigation measures as detailed in the environmental approval documentation. ii. The responsibilities of key project personnel with respect to the implementation of the plan. iii. Waste management and recycling monitoring requirements. iv. A procedure for the assessment, classification, management and disposal of waste in accordance with the Waste Classification Guidelines (DECC, 2008). v. Compliance record generation and management.	WRMP	Waste and Recycling	Sustainability Manager	Design and Construction

Source Document	Requirement Clause	Requirement	Document	Description	Responsibility	Timing
CEMF	17.2 b	Principal Contractors will undertake the following waste monitoring as a minimum: i. Weekly inspections will include checking on the waste storage facilities on site. ii. All waste removed from the site will be appropriately tracked from 'cradle to grave' using waste tracking dockets	WRMP	Waste and Recycling	Sustainability Manager	Construction
CEMF	17.2 c	Principal Contractors will report all necessary waste and purchasing information to TfNSW as required for TfNSW to fulfil their WRAPP reporting requirements	WRMP	Waste and Recycling	Sustainability Manager	Construction
CEMF	17.2 d	Compliance records will be retained by the Principal Contractors in relation to waste management including records of inspections and waste dockets for all waste removed from site	WRMP	Waste and Recycling	Sustainability Manager	Construction
CEMF	17.3	Waste Mitigation	WRMP	Waste and Recycling		Design and Construction
CEMF	17.3 a	Examples of waste management and recycling mitigation measures include: i. All waste materials removed from the sites will be directed to an appropriately licensed waste management facility. ii. The use of raw materials (noise hoarding, site fencing, etc...) will be reused or shared, between sites and between construction contractors where feasible and reasonable. iii. Recyclable wastes, including paper at site offices, will be stored separately from the other waste	WRMP	Waste and Recycling		
SWTC Appendix B07	2.4	2.4 Resource – waste and materials	WRMP	Waste and Recycling	Sustainability Manager	n/a
SWTC Appendix B07	2.4.1	2.4.1 Waste	WRMP	Waste and Recycling	Sustainability Manager	n/a
SWTC Appendix B07	2.4.1 (a)	(a) The SSJ Contractor must ensure that at least 95% of inert and non-hazardous construction and demolition waste, excluding spoil, and at least 60% of office waste generated during the SSJ Contractor's Activities is recycled or alternatively beneficially reused.	WRMP	Waste and Recycling	Sustainability Manager	Construction
SWTC Appendix B07	2.4.1 (b)	(b) The SSJ Contractor must identify and implement opportunities for recycling and reuse of non-putrescible general solid wastes (other than construction and demolition waste and office waste) during the SSJ Contractor's Activities.	WRMP	Waste and Recycling	Sustainability Manager	Construction

Source Document	Requirement Clause	Requirement	Document	Description	Responsibility	Timing
SWTC Appendix B07	2.4.1 (c)	(c) The SSJ Contractor must negotiate and implement packaging take-back arrangements with suppliers.	WRMP	Waste and Recycling	Sustainability Manager	Construction
SWTC Appendix B07	2.4.1 (d)	(d) The SSJ Contractor must use compostable or reusable temporary erosion control devices where practicable.	WRMP	Waste and Recycling	Sustainability Manager	Construction
SWTC Appendix B07	2.4.1 (e)	(e) The SSJ Contractor must provide construction waste recycling facilities within the Construction Site where practicable.	WRMP	Waste and Recycling	Sustainability Manager	Construction
Management Requirements - Sustainability (MR-Sy) requirements	Annexure B (b)	The Contractor must comply with the requirements of CEMF Clause 2.1 Legislation except the Principal retains the obligation to address any legislation which is not relevant to the Contractor's Activities.	Relevant Management Plans	Sustainability Management		Design and Construction
Management Requirements - Sustainability (MR-Sy) requirements	Annexure B (o)	The Contractor must comply with the requirements of CEMF Clause 17.1 Waste Objectives	WRMP	Waste and Recycling	Sustainability Manager	Design and Construction
Management Requirements - Sustainability (MR-Sy) requirements	Annexure B (p)	The Contractor must comply with the requirements of CEMF Clause 17.2 Waste Implementation	WRMP	Waste and Recycling	Sustainability Manager	Design and Construction
Management Requirements - Sustainability (MR-Sy) requirements	Annexure B (q)	The Contractor must comply with the requirements of CEMF Clause 17.3 Waste Mitigation	WRMP	Waste and Recycling	Sustainability Manager	Design and Construction
IS Technical Manual V1.2	Was-1	Predictions for waste quantities and types have been developed for construction. Measures to minimise waste during construction have been identified and implemented. Monitoring of all wastes is undertaken during construction.	WRMP	Waste and Recycling	Sustainability Manager	Construction

Source Document	Requirement Clause	Requirement	Document	Description	Responsibility	Timing
IS Technical Manual V1.2	Was-1	Predictions for waste quantities and types have been developed for operation. Measures to minimise waste during operation have been identified and implemented	WRMP	Waste and Recycling	Sustainability Manager	Design
IS Technical Manual V1.2	Was-1	Waste monitoring and management has been managed, reviewed or audited by a suitably qualified professional. It should be undertaken at least annually for construction. A suitably qualified professional means someone with at least five years' waste management experience, or a NABERS Assessor, or equivalent. The review or audit should cover both systems and data i.e. the systems used to manage waste and the data recording and reporting. The scope of the waste review/audit should include an objective assessment of the accuracy and completeness of reported waste information	WRMP	Waste and Recycling	Sustainability Manager	Construction
IS Technical Manual V1.2	Was-1	Waste handling and disposal/recycling all the way to final destination has been audited at appropriate intervals. Auditing to final destination must be undertaken at least 6 monthly for construction. The audit should include a physical/visual verification of waste destinations.	WRMP	Waste and Recycling	Sustainability Manager	Construction
IS Technical Manual V1.2	Was-2	All of the following targets for landfill diversion have been achieved or bettered: 100% by volume of spoil >90% by volume of inert and non-hazardous waste >60% by volume of office waste material.	WRMP	Waste and Recycling	Sustainability Manager	Construction
IS Technical Manual V1.2	Was-3	A deconstruction plan is developed based on good practice. The deconstruction plan is reviewed and updated. Reviews should consider changes to technology and infrastructure planning.	WRMP	Waste and Recycling	Design Manager / Sustainability Manager	Design
IS Technical Manual V1.2	Was-3	50% by value of components or pre-fabricated units used can be easily separated on disassembly/ deconstruction into material types suitable for recycling or reuse.	WRMP	Waste and Recycling	Design Manager / Sustainability Manager	Design
S2B REMMS	WM1	Detailed design would include measures to minimise excess spoil generation. This would include a focus on optimising the design to minimise spoil volumes, and the reuse of material on-site.	WRMP	Waste and Recycling	Design Manager	Design
S2B REMMS	WM2	A recycling target of at least 90 per cent would be adopted.	WRMP	Waste and Recycling	Sustainability Manager	Design and Construction

Source Document	Requirement Clause	Requirement	Document	Description	Responsibility	Timing
S2B REMMS	WM6	All waste would be assessed, classified, managed and disposed of in accordance with the Waste Classification Guidelines (EPA, 2014).	WRMP	Waste and Recycling	Sustainability Manager / Environment Manager	Construction
S2B REMMS	WM7	Waste segregation bins would be located at various locations within the project area, if space permits, to facilitate segregation and prevent cross contamination.	WRMP	Waste and Recycling	Sustainability Manager	Design and Construction

Appendix G Obligations Register – BEW

Sydney Metro City & Southwest
Southwest Metro Bankstown Early Works
SWTC Appendix F08 - Sustainability
Requirements Tracker

Date Reviewed:

Secti	Title/Categories	Requirement	Action	Progress Comments	Responsible	D
6.3	Waste					
6.3 (a)	Waste	The SSJ Contractor must:				
6.3 (a)(i)	Waste	(i) minimise the generation of waste; and	Snapshots, Bins, Message boards, other waste stream sep, Toolbox talks etc - coffee machine etc. Save evidence in Waste folder		WC	
6.3 (a)(ii)	Waste	(ii) demonstrate through construction planning and construction methods, the achievement of waste minimisation, recycling and resource recovery	Waste management plan, reporting, emails, cut/fill (use this as evidence in reduction of cut) --> Ask Killian/Clint/Jithmi about this		MH	
6.3 (b)	Waste	The SSJ Contractor must:				
6.3 (b)(i)	Waste	(i) recycle or reuse at least 96% of inert and non-hazardous construction and demolition recycleable waste, excluding spoil; and	reporting and managing the waste contractor		MH	
6.3 (b)(ii)	Waste	(ii) recycle or reuse 60% of office waste	reporting and managing the waste contractor		MH	
6.3 (c)	Waste	The SSJ Contractor must identify and implement opportunities for recycling and reuse of non-putrescible general solid wastes (other than construction and demolition waste and office waste) during the SSJ Contractor's Activities.	Coffee cups, nespresso caps, masks, ciggie butts, batteries, cartridges, Initiatives: We have battery bins on site - brin gin all your tech and battery waste Mobile Muster - send a box for old mobiles and laptops - FREE program		WC : contact Mobile muster see if they give individual reports/can service our project	
6.3 (d)	Waste	The SSJ Contractor must investigate packaging take-back arrangements with suppliers and implement where feasible.	SAP			
6.3 (e)	Waste	The SSJ Contractor must use compostable or reusable temporary erosion control devices where practicable.	Weekly inspections and env initiatives			
6.3 (f)	Waste	The SSJ Contractor must avoid the production of hazardous waste where practicable.	Turning off plants, swapping out diesel powered plants with electrical, installing powerboards on site rather than utilising generators, solar panels in compound (connected to powergrid) rather than using generators			

Appendix H Obligations Register – BAC

To be developed

Appendix I ISC Rating Tracker

The following is an excerpt from the ISC Tracker. This excerpt includes detail of the applicable waste management deliverables. The tracker is a stand-alone tracker which shall remain live until project completion is achieved. Further detail shall be populated during the course of the Design and As-Built Rating.

CSF Completion and Review Register

Round 1 As-built Submission Target Date	11-Feb

Target Points:	74.63
Tracking Points:	74.63
Points Achieved:	-

Excluding innovation

THEME	CATEGORY	CREDIT	Mat	Pts Available	Levels	Target Level	Target Pts	Tracking Lvl	Tracking Pts	Assessor	Status	Completion %	Reviewer	Review Completion Date	Sydney Metro Review Status	Michelle Quality Check	Quality Check (Assign person)	Quality Check (Assign person)	Ready for Submission?
Emissions, Pollution & Waste	Waste	Was-1	2	2.02	2	2	2.02	2	2.02		Not Started		TJ						
		Was-2	2	3.54	3	3	3.54	3	3.54		Not Started		TJ						
		Was-3	1	0.76	3	1	0.25	1	0.25		Not Started		TJ						

Appendix J SDG Rating Tracker

The following is an excerpt from the SDG Tracker. This excerpt includes detail of the applicable waste management deliverables. The tracker is a stand-alone tracker which shall remain live until project completion is achieved. Further detail shall be populated during the course of the SDG Rating.

Sydney Metro City & Southwest
Southwest Metro Bankstown Early Works
SDGs v4.0
Requirements Tracker

Date Reviewed	20/06/2022
GOLD	245 - 289
PLATINUM	317 - 374
Estimated points achievable	292.25
Points Tracking	310.5
Potential Higher	

Sectio	Title/Categories	Level (@ CDR)	Requirement	Construction Level Aim	PTS	Level Tracking	PTS Tracking	Construction Level Requirements	Min Evidence Requirement	General Actions	Current Action	Compliance Check
CR04	Waste Diversion	P4	BEW targeting diversion of > 96% of C&D waste (by weight) from landfill (Hierarchy: Avoidance, Resource Recovery, Disposal)	P4	18	P4	18		Evidence can be from waste contractor info and/or onsite waste separation monitoring/register depending on waste management approach: - Waste registers which should include quants generated, reused/recycled and final destination (e.g. recycling facility, on site reuse etc.) for key waste streams at a min - Contractor info should include reports from waste management provider (in the form of an invoice or otherwise) that details quants generated and reused/recycled for key waste streams	Action to Update WMP MH/TJ/Adeel to set up Waste register - See Enviro folder if there is one Reports from Waste contractor Recycled and Final Destination (Waste to Dest Audits) See F08 6.3 (b)(ii) for Office Waste requirement (60%)	Contact Bingo re: C&D waste needs to achieve 96% - f08 Continue waste tracking	MH, OL and NC undertook Was Kick Off
CR05	Beneficial Spoil Reuse	P1	BEW is targeting 100% of usable spoil (by weight) to be beneficially reused (aim is to reduce resource consumption and waste generation) - balance site works to avoid excess or importation of spoil - reuse any excess reusable spoil on site - reuse any excess reusable spoil off site	P1	0	P1	0		Spoil register, including quants of usable spoil and where it has been reused at a min	Spoil Register - MH spoken with BH and KC. KC has sent over Spoil Register Check what is in Spoil reg and if it meets min req		Spoil Tracker meeting with KC: 23/03/2022 KC agreed to forward/cc all spoil movement emails to WC

Appendix K Program Tracker

SWMC																		
LEGEND																		
Develop	Review	Submission	Update															
Complete	In Progress	Delayed	Model															
	Deliverables		Person / People Responsible	06/06/20	13/06/20	20/06/20	27/06/20	04/07/20	11/07/20	18/07/20	25/07/20	01/08/20	08/08/20	15/08/20	22/08/20	29/08/20
	ISCA- Lan-3		Olivia													
	ISCA- Lan-4								D	D	D	D	D	R		
	ISCA- Was-1														D	D
	ISCA- Was-2														D	D

BEW												
LEGEND:												
Develop	Review	Submission	Update									
Complete	In Progress	Delayed										
	Deliverables		Person/People Responsible	21/02/2022	28/02/2022	07/03/2022	14/03/2022	21/03/2022	28/03/2022	04/04/2022	11/04/2022	18/04/2022	25/04/2
													complete
	CR4 Waste Diversion												
	CR4 brief with BEW team on waste		Michelle										
	Waste tracking		Wadeea/Michelle	D	S			D	S			D	S
				Complete	Complete			complete	complete			complete	complete
	Engage Grasshopper		Michelle				D	D	D	D	R	S	
							complete	complete	complete	complete	complete	complete	
	Complete draft scorecard/SM meeting to review evidence		Michelle/Dee								D	D	R
											complete	complete	complete
	CR5 Beneficial Spoil Reuse												
	CR5 brief with Engineers		Michelle										
	Spoil tracking		Wadeea/Michelle	D	S			D	S			D	S
				complete	Complete			Complete	Complete			complete	complete
	Meet with Engineers regarding Spoil tracker		Wadeea/Michelle					D					
								complete					
	Complete draft scorecard/SM meeting to review evidence		Michelle/Dee								D	D	R
											complete	complete	complete

Appendix L Waste Receiving Sites

Site Name	Location	Capacity	Site Owner
Bingo Recycling Centre Patrons Lane	123-129 Patrons Lane, Orchid Hills, NSW, 2748	205,000 tonnes per annum	SRC Operations Pty Ltd
Bingo Recycling Centre Auburn	3-5 Duck Street, Auburn, NSW 2144	24,000 tonnes	Adderley Recycling Pty Ltd
Cleanaway Resource Co	35-37 Frank Street, Wetherill Park, NSW 2164	7,000 tonnes	Resource Co RRF Pty Ltd
JJ Richards & Sons Pty Ltd	8 Kommer Place, Saint Marys, NSW 2760	1,100 tonnes	JJ Richards & Sons Pty Ltd
Banksmeadow Transfer Terminal	34-36 McPherson Street, Banksmeadow, NSW 2019	6,225 tonnes	Veolia Environmental Services (Australia) Pty Ltd
Polytrade Recycling Enfield	12-82 Madeline St, Strathfield, NSW 2136	4,200 tonnes	Polytrade Pty Ltd
VISY PAPER	6 Herbert Place, Smithfield, NSW 1264	7000 tonnes	Visy Recycling PTY LTD
SIMS Metal Management	76 Christie Street, St Mary's, 2760	As required	SIMS Metal Management (St Mary's)
Ballast Recycling Depot	Worth St Gate 1, Chullora, NSW, 2190	85,000 tonnes	Waste a Recycling Centre Chullora
Breen Recycling Facility	Captain Cook Drive Kurnell NSW 2231	1,450,000 tonnes	Breen Resources Pty Ltd

Site Name	Location	Capacity	Site Owner
Genesis Facility	Honeycomb Drive Eastern Creek NSW 2766	700,000 tonnes	Dial-a-dump (ED) Pty Ltd
Bingo Recycling Centre Banksmeadow	38 McPherson Street Banksmeadow NSW 2019	20,000 tonnes	McPherson Recycling Pty Ltd
MET Recycling Pty Ltd	134 Newtown Street Silverwater NSW 2128	20,000 tonnes	MET Recycling Pty Ltd
Sydney Recycling Park	16-23 Clifton Avenue Kemps Creek NSW 2178	147,000 cubic meters	Sydney Recycling Park Pty Ltd
Elizabeth Drive Landfill Facility	1725 Elizabeth Drive Kemps Creek NSW 2178	Tyre stockpile- 50 tonnes Other stockpiles- 4,000 cubic meters	Suez Recycling and Recovery Pty Ltd
Environmental Treatment – Solutions Blayney	79 Marshalls Lane Blayney NSW 2799	300 tonnes Environmental Treatment	Solutions Pty Ltd

Appendix M Deconstruction Plan

A deconstruction plan for the BAC works is currently being developed and a draft will be included in the next revision of the plan.