CONSTRUCTION WASTE CONTAMINATION AND HAZARDOUS MATERIALS MANAGEMENT PLAN – STAGE A

A2I | Albury to Illabo

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Revision History

REVISION	REVISION DATE	AMENDMENT	DATE TO CLIENT
A	13 August 2024	First revision for client and ER review	13 August 2024
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GLOSSARY

TERM	DEFINITION
ARTC	Australian Rail Track Corporation
CCS	Community Communication Strategy
CEMF	Construction Environmental Management Framework
CEMP	Construction Environmental Management Plan
CEPS (CEnvP) - Contam	A suitably qualified person holding valid 'Site Contamination' certification under the Certified Environment Practitioners Scheme (CEnvP)- Environment Institute of Australia and New Zealand or Certified Professional Soil Scientist – Contaminated Site Assessment and Management under the Soil Science Australia Certification Scheme
CWCHMMP	Construction Waste Contamination and Hazardous Materials Management Plan (this Plan)
CoA	Conditions of Approval
Construction	Includes work required to construct the CSSI as defined in the Project Description described in the documents listed in Condition A1 including commissioning trials of equipment and temporary use of any part of the CSSI but excluding Low Impact Work which is carried out or completed prior to approval of the CEMP.
Construction boundary	The area physically affected by work as defined in the Project Description as described in the documents listed in Condition A1.
Contamination	The presence in, on or under the land of a substance at a concentration above the concentration at which the substance is normally present in, on or under (respectively) land in the same locality, being a presence that presents a risk of harm to human health or any other aspect of the environment.
CSSI	Critical State Significant Infrastructure
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DPE	NSW Department of Planning and Environment
DPHI	Department of Planning, Housing and Infrastructure
EAD	Environmental Assessment Documentation that includes: • Inland Rail – Albury to Illabo Environmental Impact Statement (ARTC, August 2022); • Albury to Illabo Response to Submissions (ARTC, November 2023); • Albury to Illabo Preferred Infrastructure Report (ARTC, November 2023); • Albury to Illabo Preferred Infrastructure Report Response to Submissions (ARTC, February 2024); • Inland Rail – Albury to Illabo (SSI-10055) Response to request for additional information – Air Quality Assessment (letter dated 1 May 2024); • Part 1 - Revised Technical Paper 8: Biodiversity Development Assessment Report (WSP, February 2024); • Part 2 - Revised Technical Paper 8: Biodiversity Development Assessment Report (WSP, February 2024).
EIS	Environmental Impact Statement
EPA	Environmental Protection Authority (NSW)
EPBC Act	*Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (Federal)
EPL	Environment Protection Licence

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TERM	DEFINITION
Environmental Representative (ER)	The Environmental Representative(s) for the CSSI approved by the Planning Secretary
GSW	General Solid Waste
IRPL	Inland Rail Pty Ltd
ISC	Infrastructure Sustainability Council
IWTS	Integrated Waste Tracking Solution
km	Kilometre
LEP	Local Environment Plan
m	metre
MR	Martinus Rail
MR ESM	Martinus Rail Environment, Approvals and Sustainability Manager
NSW	New South Wales
Planning Secretary	Planning Secretary of the Department (or nominee, whether nominated before or after the date on which this approval was granted)
PIR	Preferred Infrastructure Report
Primary CoA/UMM	CoA and/or UMMs that are specific to the development of this Plan
RRE	Resource Recovery Exemption
RRO	Resource Recovery Order
SAP	Sensitive Area Plan
SuMP	Sustainability Management Plan
TfNSW	Transport for New South Wales (formerly Roads and Maritime Services)
VENM	Virgin Excavated Natural Material
UMM	Updated Mitigation Measures
WARR Act	Waste Avoidance and Resource Recovery Act 2001

1 INTRODUCTION

1.1 Project overview

Inland Rail is an approximate 1,600 kilometres (km) freight rail network that will connect Melbourne and Brisbane via regional Victoria, New South Wales (NSW) and Queensland. The Inland Rail route would involve using approximately 1,000 km of existing track (with enhancements and upgrades where necessary) and 600 km of new track, passing through 30 local government areas (LGAs). Inland Rail will accommodate double-stacked freight trains up to 1,800 metres (m) long and 6.5 m high.

The Australian Government has confirmed that Inland Rail is an important project to meet Australia's growing freight task, improve road safety and help decarbonise the economy. Inland Rail will enhance our national freight and supply chain capabilities, connecting existing freight routes through rail, roads and ports, and supporting Australian's growth. Inland Rail is being delivered by Australian Rail Track Corporation (ARTC) and Inland Rail Pty Ltd (IRPL).

Comprising 12 sections, a staged approach is being undertaken to deliver Inland Rail. Each of these projects can be delivered and operated independently with tie-in points to the existing railway. Work south of Parkes has been prioritised, which will enable Inland Rail to initially connect to existing rail networks between Melbourne, Sydney, Perth and Adelaide via Parkes and Narromine. The Parkes to Narromine and Narrabri to North Star Phase 1 sections are complete.

The Albury to Illabo (A2I) project (the project) will enable enhancement works to structures and sections of track along 185 km of the existing operational standard-gauge railway in the Albury to Illabo (A2I) section of the Inland Rail program. Enhancement works are required to provide the increased vertical and horizontal clearances required for double-stacked freight trains. Works would include track realignment, lowering and/or modification within the existing rail corridor, modification, removal or replacement of bridge structures (rail, road and/or pedestrian bridges), raising or replacing signal gantries, level-crossing modifications and other associated works.

A detailed project description is provided in Section 4 of the Construction Environmental Management Plan (CEMP).

1.2 Planning context

The project is declared State significant infrastructure (SSI) and critical State significant infrastructure (CSSI) under Division 5.2 of the *Environmental Planning and Assessment Act 1979* (NSW) (EP&A Act). The project (SSI-10055) is permissible without development consent and is subject to assessment and approval by the NSW Minister for Planning.

An environmental impact statement (EIS) was prepared to support ARTC's application for approval of the project in accordance with the requirements of the EP&A Act and the environmental assessment requirements of the Secretary of the (then) NSW Department of Planning, Industry and Environment (the SEARs) (now the Department of Planning, Housing and Infrastructure (DPHI)).

The EIS was placed on public exhibition from 17 August 2022 to 28 September 2022. During the exhibition period, interested stakeholders and members of the community were able to review the EIS online, participate in consultation and engagement activities held by ARTC, and make a written submission to the DPE for consideration in its assessment of the project.

In accordance with section 5.17(6)(b) of the EP&A Act, on 13 April 2023 the Planning Secretary directed ARTC to submit a Preferred Infrastructure Report (PIR) that provides further assessment of traffic and transport, noise and vibration, and air quality impacts. The PIR was also prepared to consider changes to the exhibited project that have arisen as a consequence of these further assessments and related submissions.

1.3 Statutory context and approval

The Inland Rail – Albury to Illabo project was assessed as part of the following documents:

- Inland Rail – Albury to Illabo Environmental Impact Statement (ARTC, August 2022);
- Albury to Illabo Response to Submissions (ARTC, November 2023);
- Albury to Illabo Preferred Infrastructure Report (ARTC, November 2023);
- Albury to Illabo Preferred Infrastructure Report Response to Submissions (ARTC, February 2024);
- Inland Rail – Albury to Illabo (SSI-10055) Response to request for additional information – Air Quality Assessment (letter dated 1 May 2024);
- Part 1 - Revised Technical Paper 8: Biodiversity Development Assessment Report (WSP, February 2024);

- Part 2 - Revised Technical Paper 8: Biodiversity Development Assessment Report (WSP, February 2024);

Together these documents are referred to as the Environmental Approvals Documentation (EAD).

Approval for the project under the EP&A Act was granted by the Minister for Planning on 8 October 2024.

1.4 Scope of this Stage A Plan

The scope of this Stage A Construction Contamination Waste and Hazardous Materials Management Plan (CWCHMMP or this Plan) is to describe how potential impacts to contamination, waste and hazardous materials during Stage A will be managed during construction of the project.

This Plan addresses the requirements of the EAD including incorporating the relevant updated mitigation measures (UMMs), and CoAs. SMART (Specific, Measurable, Achievable, Realistic and Timely) principles have been considered and applied during the preparation of this Plan which will be implemented for the duration of construction.

This Plan is applicable to all activities during Stage A construction of the project, including all areas where physical works will occur or areas that may otherwise be impacted by the Stage A construction works, and under the control of Martinus Rail. All Martinus Rail staff and sub-contractors are required to comply with and operate fully under the requirements of this Plan and related environmental management plans, over the full duration of the Stage A construction program.

A copy of this Plan will be kept on the premises for the duration of Stage A construction.

1.4.1 Staging

The Staging Report describes how the construction and operation of the project will be staged in accordance with CoA A9, A10 and A11. A staged approach has been primarily adopted for the project to prioritise critical activities that are reliant upon infrequent and fixed rail possessions. It overall de-risks the construction program for the project, ensuring that the project is operational within the timeframe committed to by the NSW Government.

As required by CoA A14 and C16, a Construction Environmental Management Framework (CEMF) has been prepared to be consistent with the Staging Report. The CEMF has been prepared to facilitate the preparation and approval of CEMPs, Sub-plans, and construction monitoring plans (CMPs) during the construction phase of the project. It includes a guide to the general environmental, stakeholder and community management requirements which will be implemented during construction and provides a road map for environmental management documentation.

In accordance with CoA C16, the CEMF must be endorsed by the Environmental Representative (ER) and then submitted to the Planning Secretary (for approval) no later than one (1) month before the lodgement of any CEMP, CEMP Sub-plan, or Construction Monitoring Program (CMP).

This Plan has been prepared to be consistent with the Staging Report and the CEMF, as required by CoA A11 and A12, as well as C16. This Plan has therefore been prepared to address how Martinus Rail will manage potential waste, contamination and hazardous materials impacts during construction of the first stage of the project – Stage A.

Stage A, as described in Section 2.1.2 of the Staging Report will comprise preparation activities for the March 2025 rail possession (Substage A1), the rail possession activities themselves (Substage A2), and post-possession activities (Substage A3). No construction works will occur at the follow enhancement sites as part of Stage A:

- Murray River Bridge;
- Albury Station pedestrian bridge;
- Albury Yard clearances;
- Riverina Highway bridge;
- Billy Hughes bridge;
- Culcairn pedestrian bridge;
- Culcairn Yard clearances;
- Uranquinty Yard clearances;
- Pearson Street bridge (with exception of short-term utility works);
- Cassidy Parade pedestrian bridge (with exception of short-term utility works);
- Edmondson Street bridge (with exception of short-term utility works);
- Wagga Wagga Station pedestrian bridge;
- Wagga Wagga Yard clearances;
- Bomen Yard clearances;

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- Kemp Street bridge;
- Junee pedestrian bridge.

This plan applies to the entirety of Stage A.

Based on the approved CEMF approach, this Plan has been approved by the ER.

Construction work during Stage A will generally include:

- Utility works, including drainage;
- Site establishment and operation;
- Traffic management and access, including material haulage;
- Minor clearing, grubbing and topsoil strip;
- Earthworks including preparation of pads and stockpiling;
- Track work including realignment and lowering;
- Gantry and signalling work.

1.5 Interactions with other managements plans and strategies

This Plan has the following interrelationships with other management plans and documents:

- Community Communication Strategy (CCS) details the procedures and processes for community notification, consultation and complaints management;
- Unexpected Finds Procedure for Contamination (Appendix B).
- Sustainability Management Plan (SuMP) which addresses the socio-economic and environmental impacts and opportunities associated during design, delivery and operation of the project under the Infrastructure Sustainability Council rating system.

1.6 Consultation

1.6.1 Consultation for this Plan

In accordance with CoA C6(i) and C6 (j), this Plan has been prepared in consultation with:

- DPHI;
- Albury City Council;
- Greater Hume Council;
- Wagga Wagga City Council;
- Lockhart Shire Council;
- Junee Shire Council.

The consultation report prepared for this Plan in accordance with CoA C6 outlines what feedback was provided (if any), and where stakeholders' responses have been addressed in this Plan. Table 1 summarises consultation undertaken and outlines how stakeholders' responses have been addressed.

TABLE 1: CONSULTATION SUMMARY – STAGE A

Stakeholder	Dates	Feedback provided	How Addressed
DPHI	24/10/2024 – comments received from DPHI	DPHI noted that the sections of the plan covering Condition E123 to E129 need further work.	These sections of the plan were updated with additional information to satisfy DPHI's comments.
Albury City Council	11/10/2024 – CWCHMMP issued to Council. 14/10/2024 – briefing held with Albury Council. 22/10/2024 to 12/11/2024 – 9 follow up attempts	No response received from Albury City Council.	N/A

Stakeholder	Dates	Feedback provided	How Addressed
	made to Council to provide comment on the Plan.		
Greater Hume Shire Council	13/11/2024 – correspondence from Greater Hume Council received	No comments noted from Council.	NA
Wagga Wagga City Council	04/11/2024 – comments from Wagga Wagga Council received	No comments noted from Wagga Wagga Council.	NA
Junee Shire Council	12/11/2024 – comments received	▪ Has naturally occurring asbestos been considered? ▪ Queries regarding the identified CoC in Section 4. ▪ A note that lead-based paint and asbestos are likely to present at structures or houses in Junee. ▪ Is initial contamination testing being completed at all sites? Can the SAQP be confirmed? ▪ Junee Shire Council has limited capacity to accept contaminated waste. ▪ Waste confirmed to be VENM ENM could be accepted by Junee Landfill or at Junee stockpile sites free of charge. ▪ Can the waste exemptions be clarified?	▪ Section 4 has been updated to reference the EAD findings regarding naturally occurring asbestos. ▪ The CoC identified in Section 4 are the findings of the EAD. ▪ Lead based paint and asbestos are identified in the EAD as CoC – Table 5 notes where these may be present at Stage A sites. ▪ Additional details on the SAQP process have been added to Section 6.1.1. ▪ Noted. ▪ Noted. ▪ Additional details regarding waste exemptions have been provided in Section 6.2.8.
Lockhart Shire Council	13/11/2024 – correspondence from Lockhart Council received	No comments noted from Council.	NA

1.6.2 Ongoing consultation during construction

Ongoing consultation between Martinus Rail, IRPL, other construction projects, stakeholders, the community and relevant agencies regarding the management of contamination, waste and hazardous materials will be undertaken during the construction of the project as required.

Engagement with licensed waste facilities will also occur throughout construction as required.

The process for consultation is described in the CCS.

1.7 Endorsement and approval

In accordance with CoA C3, CEMP(s) (and relevant CEMP sub-plans) not requiring the Planning Secretary's approval, but requiring ER endorsement, must be submitted to the ER no later than one (1) month before the commencement of construction or where construction is staged no later than one (1) month before the commencement of that stage. The CEMPs (and relevant CEMP sub-plans) must be endorsed by the ER as being consistent with the conditions of this approval and all undertakings made in the documents listed in CoA A1.

Construction will not commence until the relevant CEMP(s) and Sub-plans have been endorsed by the ER (as applicable and as identified in the CEMF approved under CoA C16), in accordance with CoA C15, and approved by the Planning Secretary in accordance with CoA C3 and C4.

Additionally, the CEMP and CEMP Sub-plans, as endorsed by the ER or approved by the Planning Secretary, including any minor amendments approved by the ER, must be implemented for the duration of Stage A of construction.

2 PURPOSE

2.1 Purpose

The purpose of this Plan is to describe how contamination, waste and hazardous materials would be managed during Stage A construction of the project.

2.2 Objectives

The key objective of this Plan is to ensure that waste, contamination and hazardous material impacts are managed appropriately throughout the construction of the project. To aid in achieving this objective this Plan incorporates the relevant management requirements from the following sources:

- The project EAD;
- Inland Rail – Albury to Illabo Infrastructure Approval CoA (SSI-10055);
- All relevant legislation and other requirements described in Section 3 of this Plan.

As discussed further in Section 2.6, sustainability is integral to the project. The Sustainability Management Plan (SuMP) (5-0052-210-PMA-00-PL-0001) includes environment and heritage theme objectives and targets. In relation to air quality, waste, contamination and hazardous materials, the relevant targets are no major exceedances of relevant air quality and no significant pollution incidents are to occur during construction.

In addition to the above, a Social Impact Management Plan (SIMP) has been developed for the project. The SIMP identifies desired outcomes for the project, including that 'amenity impacts are minimised through monitoring, engagement and continuous improvement initiatives'. Although not specifically referenced, the implementation of this Plan assists the project to manage waste, contamination and hazardous materials in a manner that will minimise amenity impacts.

2.3 Targets

Targets for the management of contamination, waste and hazardous materials during the project include:

- Ensure full compliance with the relevant legislative requirements;
- Follow correct procedures and ensure implementation of the Unexpected Finds Procedure for Contamination during construction of the project;
- Ensure appropriate controls and procedures are implemented during construction activities to avoid or minimise potential adverse impacts from waste, contamination and hazardous materials.

2.4 Performance outcomes

Performance outcomes identified in Chapter 27 of the EIS that are relevant to the management of waste, contamination and hazardous materials during construction of the project are identified in Table 2.

TABLE 2: PERFORMANCE OUTCOMES FOR WASTE CONTAMINATION AND HAZARDOUS MATERIALS

Performance outcomes	How performance outcome will be achieved
Manages any contamination in accordance with relevant regulatory requirements.	Implementation of the management measures outlines in Section 6.3
Assesses, classifies, manages and disposes of any soil waste in accordance with the Waste Classification Guidelines (NSW EPA, 2014b).	Measures to assess, classify, manage and dispose of soil waste are described in Section 6.2.
Implements the preferred waste management hierarchy of avoidance, minimisation, reuse, recycling and disposal.	The waste hierarchy and its implementation is described in Section 6.2.1.

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Performance outcomes	How performance outcome will be achieved
Implements measures to minimise waste, manage waste and conserve resources throughout the construction of the proposal.	Waste management measures and their implementation are outlined in Section 6.3
Reuses spoil as part of the proposal, as far as practicable.	Spoil reuse is described in Section 6.2.4.
Disposes of waste at appropriately licensed facilities.	Waste will be disposed of at appropriately licenced facilities, as described in Section 6.2.6.

2.5 SMART principles

This Plan has been developed with the consideration of SMART principles. This was achieved as follows:

- **Specific**: The measures listed this Plan are specific to waste, contamination and hazardous materials during construction. They include the development and implementation of plans and procedures tailored to address identification, and management of specific issues;
- **Measurable**: The document provides specific measures, requirements, and references that enable the evaluation and measurement of the effectiveness of each control measure;
- **Achievable**: The control measures outlined in the document are practical and achievable within the construction context. They involve the implementation of plans, investigations, and management strategies that can be feasibly executed during the construction phase;
- **Relevant**: The measures are directly relevant to waste, contamination and hazardous material management during construction;
- **Time-bound**: The document specifies when each measure should be implemented, such as prior to and during construction. It also assigns responsibilities to specific roles, indicating the timeline and accountability associated with each measure.

2.6 Infrastructure Sustainability Council Requirements

Both Martinus Rail and Inland Rail are committed to ensuring the projects are designed and constructed with high levels of sustainability integrated throughout the projects. Martinus Rail has developed and will implement a Sustainability Management Plan (SuMP) that is compliant with:

- Project Approvals
- Inland Rail Sustainability Strategy (0-0000-900-ESS-00-RP-0003)
- Inland Rail Sustainability Requirements – Albury to Parkes (3-0000-210-ESS-00-SP-0001)
- A2P Enhancement Projects Incentivised Target Cost Deed (ARTC Contract No. 2140-0001)

Martinus Rail will aim to achieve a certified minimum rating of 'Excellent' under the Infrastructure Sustainability Council (ISC) IS Technical Manual version 1.2. For further detail please refer to the SuMP.

The specific IS air quality, waste, contamination and hazardous material target can be found in Section 2.2. The following table outlines the relevant IS credits and where they are addressed in this plan. See *Appendix C – ISC Requirements* for a detailed compliance table.

TABLE 3: WASTE AND AIR QUALITY SPECIFIC SUSTAINABILTY TARGETS

ISC Credit		Where addressed
Waste Management (Was-1)		
Level 1 Benchmark	Predictions for waste quantities and types have been developed for construction and operation. AND	Section 5.3.2 Section 6.3

ISC Credit		Where addressed
	Measures to minimise waste during construction and operation have been identified and implemented AND Monitoring of all wastes is undertaken during construction	Section 6.2.3
Level 2 Benchmark	Waste monitoring and management has been managed, reviewed or audited by a suitably qualified professional AND Waste handling and disposal/recycling all the way to final destination has been audited at appropriate intervals	Section 7.3.1 Section 6.2.9

3 ENVIRONMENTAL REQUIREMENTS

3.1 Legislation

Legislation and regulations relevant to the management of waste, contamination and hazardous materials includes:

- *Contaminated Land Management Act 1997*;
- *Environmentally Hazardous Chemicals Act 1985*;
- *Environmental Planning and Assessment Act 1979* (EP&A Act);
- *Protection of the Environment Operations Act 1997 (NSW);*
- *Protection of the Environment Operations (Waste) Regulation 2014;*
- *Waste Avoidance and Resource Recovery Act 2001;*
- *Work Health and Safety Act 2011.*

A register of legal requirements for the project is contained in Appendix A1 of the CEMP.

3.2 Guidelines and standards

The main guidelines, specifications, and policy documents relevant to this Plan include:

- Contaminated Land Sampling Design Guidelines (2022), Guidelines for the NSW Sit Auditor Scheme (EPA, 2017);
- Consultants reporting on contaminated land: Contaminated Land Guidelines (EPA, 2020);
- Environmental Management Plan Guideline – Guideline for Infrastructure Projects (DPIE, April 2020);
- Department of Infrastructure, Planning and Natural Resources Guideline for the Preparation of Environmental Management Plans (DIPNR, 2004);
- NSW EPA Strategic Plan 2021-24 (EPA, 2021);
- NSW EPA Contaminated Land Guidelines - Consultants Reporting on Contaminated Land & Sampling Design;
- NSW Waste and Resource Recovery Strategy 2014-21 (EPA, 2014);
- NSW Government Resource Efficiency Policy (GREP) (OEH, 2014);
- Waste Classification Guidelines (EPA, 2014);
- Managing Urban Stormwater: Soils and Construction Volume 1 (Landcom 2004) and Volume 2 (A. Installation of Services; B. Waste Landfills; C. Unsealed Roads; D. Main Roads; E. Mines and Quarries) (NSW Department of Environment and Climate Change, 2008);
- AS2601: 2001 The Demolition of Structures;
- Code of Practice for the Safe Removal of Asbestos 2nd Edition (National Occupational Health and Safety Commission, 2005a);
- Code of Practice for the Management and Control of Asbestos in Workplaces (National Occupational Health and Safety Commission 2005b);
- National Environment Protection (assessment of site contamination) Measure (1999);
- Storing and Handling Liquids: Environmental Protection – Participants Manual (NSW Department of Environment and Climate Change (DECC), 2007);
- Preparation of Environmental Management Plans (NSW Department of Environment, Climate Change and Water (DIPNR), 2004);
- Construction and demolition waste: A management toolkit (EPA, 2019);
- Hazardous waste storage and processing Guidance for the liquid waste industry (EPA, 2017).
- Inland Rail Sustainability Strategy (0-0000-900-ESS-00-RP-0003)
- Inland Rail Sustainability Requirements – Albury to Parkes, sustainability requirements specified in 3-0000-210-ESS-00-SP-0001

3.3 Minister's Conditions of Approval

The requirements of the CoA relevant to the development of this Plan are shown in Table 4. Secondary CoA have been listed in Appendix A. A cross reference is also included to indicate where the CoA is addressed in this Plan or other project management document.

TABLE 4: COA RELEVANT TO THIS PLAN

No.	Requirement	Where addressed
C3	CEMP(s) (and relevant CEMP sub-plans) must be submitted to the Planning Secretary for approval except those permitted to be endorsed by others pursuant to a CEMF approved by the Planning Secretary under Condition C16.	Section 1.7
C4	Where a CEMP (and relevant CEMP sub-plans) requires Planning Secretary's approval, the CEMP (and relevant CEMP sub-plans) must be endorsed by the ER and then submitted to the Planning Secretary for approval no later than one (1) month before the commencement of construction, or where construction is staged, no later than one (1) month before the commencement of each stage.	Section 1.7
C5	CEMP(s) (and relevant CEMP sub-plans) not requiring the Planning Secretary's approval, but requiring ER endorsement, must be submitted to the ER no later than one (1) month before the commencement of construction or where construction is staged no later than one (1) month before the commencement of that stage. The CEMPs (and relevant CEMP sub-plans) must be endorsed by the ER as being consistent with the conditions of this approval and all undertakings made in the documents listed in Condition A1.	Section 1.7
C6	Except as provided by Condition C16 the following CEMP Sub-plans must be prepared in consultation with the relevant government agencies identified for each CEMP Sub-plan. Details of all information requested by an agency during consultation must be provided to the Planning Secretary as part of any submission of the relevant CEMP Sub-plan, including copies of all correspondence from those agencies as required by Condition A8. (i) Contamination and hazardous materials plan – DPHI and relevant councils (j) Waste management plan – Relevant councils	This Plan Section 1.6
C7	The CEMP Sub-plans must state how:	-
	a) the environmental performance outcomes identified in the documents listed in Condition A1 will be achieved;	Section 2.4
	b) the mitigation measures identified in the documents listed in Condition A1 will be implemented;	Section 6
	c) the relevant terms of this approval will be complied with; and	Table 4 Appendix A
	d) issues requiring management during construction (including cumulative impacts), as identified through ongoing environmental risk analysis, will be managed through SMART principles.	Section 5
C15	Construction must not commence until the relevant CEMP(s) and CEMP Sub-plans have been approved by the Planning Secretary or endorsed by the ER, (as applicable and as identified in the CEMF approved under Condition C16). The CEMP and CEMP Sub-plans, as approved by the Planning Secretary, including any minor amendments approved by the	Section 1.7

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No.	Requirement	Where addressed
	ER, must be implemented for the duration of construction. Where the CSSI is being staged, construction of that stage is not to commence until the relevant CEMP and sub-plans have been endorsed by the ER and approved by the Planning Secretary or ER.	

3.4 Updated Mitigation Measures

There are no primary UMMs presented in the EAD relevant to the development of this Plan. Secondary UMMs have been listed in Appendix A.

4 EXISTING ENVIRONMENT – STAGE A

The following sections summarise what is known about waste, contamination and hazardous materials within and adjacent to the project. The key reference documents are:

- EIS Chapter 20 (Soils and contamination);
- EIS Chapter 23 (Waste and resource management);
- EIS Technical Paper 13 (Contamination).

The construction boundary and relevant content is shown on the example Sensitive Area Maps (SAPs) included as Appendix A5 of the CEMP.

4.1 Contamination and hazardous materials

The project is located within an industrial context, being an existing rail corridor, which will be considered to contain a general level of risk associated with contamination from historical development and activities associated with its operation. A range of sites can also be included within or adjacent to the rail corridor which will be considered to have associated contaminated risk, including agricultural land. Whilst these have been identified in discrete locations in some instances, they will also be considered to have the potential to occur in other areas and thus a level of general contamination risk is present. These sources include:

- Fill used in construction of the existing rail line, possible historical waste disposal along the project site;
- Weed suppression activities;
- Buildings potentially containing hazardous materials;
- Rail line ballast;
- Contamination from maintenance activities undertaken at sidings and near silos or other areas;
- Use of chemicals on agricultural land;
- Machinery storage and maintenance, refuelling and spray rig filling, agricultural sheds and silos.

These are assessed as a general contamination risk and whilst may be limited in area, are not assigned to discrete locations.

A search of applicable regulatory databases and review of historical aerial photographs was undertaken for the EIS. A summary of the results for the Stage A enhancement sites is presented in Table 5 and support figures shown in Figure 1 to Figure 9.

No Areas of Environmental Concern (AECs) and potential contaminates were identified within the Albury Precinct at the Table Top Yard clearances enhancement site. Additionally, the EIS concludes that no naturally occurring asbestos was noted within the vicinity of any of the project precincts.

TABLE 5: AREAS OF ENVIRONMENTAL CONCERN AND POTENTIAL CONTAMINANTS – STAGE A

Enhancement site	AEC Number	Description of AEC	Potential contaminants of concern	Summary of contamination risks from EAD
Wagga Wagga Precinct				
Pearson Street bridge	AEC 32	Wagga show campground; storage of unknown minor chemicals	TRH, BTEX, PAHs, heavy metals and/or asbestos	This is a proposed laydown area and so there is low risk to human health receptors. Groundwater is a potential receptor if bulk fuel and chemical storage is present.
	AEC 33	Potential ACM on the ground surface and fill containing anthropogenic material	Heavy metals, TRH, BTEX, PAHs, asbestos, lead containing dust and/or paint	Where the fill in this location had been excavated for trenching works, it was also observed to contain anthropogenic material. ACM should not present a risk to human health receptors during the track lowering works at this enhancement site if the ACM is removed prior to works

Enhancement site	AEC Number	Description of AEC	Potential contaminants of concern	Summary of contamination risks from EAD
				and correct construction practices are followed.
	AEC 34	Former Council depot, storage of unknown chemicals or fuel, machinery maintenance	TRH, BTEX, PAHs, heavy metals and/or asbestos	This is a proposed laydown area and so there is low risk to human health receptors. Groundwater is a potential receptor if bulk fuel and chemical storage is present.
Edmondson Street bridge	AEC 36	Potential USTs, formerly storage of firefighting storage tanks and former fuel store (not part of the enhancement site) – Former District Engineers Office, workshop and branch depot	TRH, BTEX, PAHs, PFAS and asbestos	Historical contamination reports for the Edmondson Street bridge and Wagga Wagga Station pedestrian bridge enhancement sites identified potential USTs which were reported by SKM (1999a) outside and to the north of the enhancement site (AEC 36) and gas cylinders, grease and drums, transformers, rail components, battery acid and ACM in buildings was reported by SKM (1999b) within the proposal area at AEC 37. Cavvanba (2019) undertook a review of these reports and also noted the potential for historical use of PFAS at AEC 36. No sampling or other work has been undertaken to confirm the presence or absence of PFAS use at this site. There is a potential risk to groundwater receptors if PFAS was historically used at this site.
	AEC 37	Historical storage of gas cylinders, grease and drums, transformers, rail components and battery acid containers and potential asbestos in buildings – former gang shed.	Asbestos and lead dust and/or paint	
Greater Hume-Lockhart Precinct				
Henty Yard clearances	AEC 16	Soil stockpiles, chemical (Penetrol) storage and sleepers	Heavy metals, TRH, BTEX, PAHs, asbestos, lead containing dust and/or paint	Containers of chemicals may present a risk to construction workers when working in the vicinity of the drums if they still contain chemicals. There is a low potential risk of groundwater contamination from these drums as no staining or leaking was observed.
	AEC 17	Stockpiles of soil and ballast	Heavy metals, TRH, BTEX, PAHs, asbestos, lead containing dust and/or paint	Dumped waste materials and ballast stockpiles may present a risk to construction workers when working in the vicinity of the hazardous material.
	AEC 18	Dumped metal drums	TRH, BTEX, PAHs, asbestos, lead containing dust and/or paint	Dumped metal drums may present a risk to construction workers when working in the vicinity of the drums if they still contain chemicals. There is a low potential risk of groundwater contamination from these drums as no staining or leaking was observed.

Enhancement site	AEC Number	Description of AEC	Potential contaminants of concern	Summary of contamination risks from EAD
	AEC 19	Henty RFS—potential historical storage of fire suppressants potentially used	TRH, BTEX, and PAHs The RFS have advised that this site has not been identified as a location where there has been historical use of PFAS. Therefore, this contaminant was not considered further.	Information provided by RFS on 19 and 21 October 2021 states that a number of years ago audits were undertaken on all RFS stations regarding the use of firefighting foams that contain PFAS. They advised that, to the best of their knowledge, no firefighting foams that contained PFAS were used at any of the RFS stations.
	AEC 20	Shell service station	TRH, BTEX, PAH, PFAS, and/or lead.	The service station.
Yerong Creek Yard clearances	AEC 21	Metals drums, tires and other debris stored (outside of site areas)	TRH, BTEX, PAHs, asbestos, lead containing dust and/or paint	Dumped waste materials may present a risk to construction workers when working in the vicinity of the hazardous material.
	AEC 22	Storage of old electronic equipment including signal boxes, metal, pipes and ladders	TRH, BTEX, PAHs, asbestos, lead containing dust and/or paint	Dumped waste materials may present a risk to construction workers when working in the vicinity of the hazardous material.
	AEC 23	Stockpiles of ballast and old rails	Heavy metals, TRH, BTEX, PAHs, asbestos, lead containing dust and/or paint	Potentially contain isolated spills or metals dust from trains. Ballast is typically an inert metamorphosed basalt or granite and not considered a contaminant source in of itself.
	AEC 24	Yerong Creek fire station—historical storage of fire suppressants potentially used	TRH, BTEX, PAHs The RFS have advised that this site has not been identified as a location where there has been historical use of PFAS. Therefore, this contaminant was not considered further.	Dumped waste materials and ballast stockpiles may present a risk to construction workers when working in the vicinity of the hazardous material. Information provided by RFS on 19 and 21 October 2021 states that a number of years ago audits were undertaken on all RFS stations regarding the use of firefighting foams that contain PFAS. They advised that, to the best of their knowledge, no firefighting foams that contained PFAS were used at any of the RFS stations.
The Rock Yard clearances	AEC 25	The Rock RFS—historical storage of fire suppressants potentially used	TRH, BTEX, PAHs The RFS have advised that this site has not been identified as a location where there has been historical	Information provided by RFS on 19 and 21 October 2021 states that a number of years ago audits were undertaken on all RFS stations regarding the use of firefighting foams that contain PFAS. They advised that, to the best of their knowledge, no firefighting foams that

Enhancement site	AEC Number	Description of AEC	Potential contaminants of concern	Summary of contamination risks from EAD
			use of PFAS. Therefore, this contaminant was not considered further.	contained PFAS were used at any of the RFS stations.
Junee precinct				
Harefield Yard clearances	AEC 40	Herbicide spraying around the station	N/A	Use of herbicides is not likely to present a risk to human health receptors if correct construction practices are used. The risk to groundwater from use of herbicides is considered to be low.
	AEC 41	Potential ACM and glass, ceramic, ballast and plastic on the site surface	TRH, BTEX, PAHs, asbestos, lead containing dust and/or paint	ACM should not present a risk to human health receptors during the track realignment works at this enhancement site if the ACM is removed prior to works and correct construction practices are followed.
Olympic Highway underbridge	AEC 46	Shell service station with drums labelled as cooking oil stored close to the tracks	N/A	This site presents a low risk to the enhancement site as it is not in the immediate vicinity of the enhancement site and contaminants unlikely to be present in significant quantities in soil or groundwater within the site.
Junee to Illabo clearances	AEC 47	Illabo RFS—potential historical chemical storage at the Illabo RFS building	TRH, BTEX, and PAHs The RFS have advised that this site has not been identified as a location where there has been historical use of PFAS. Therefore, this contaminant was not considered further.	The site presented a low risk to the enhancement site as concentrations at the enhancement site unlikely to exceed industrial health based levels but may have impacts on suitability for material reuse and disposal. Information provided by RFS on 19 October 2021 states that a number of years ago audits were undertaken on all RFS stations regarding the use of firefighting foams that contain PFAS. They advised that, to the best of their knowledge, no firefighting foams that contained PFAS were used at Illabo RFS.
	AEC 48	Ballast stockpiles	N/A	Stockpiles of ballast were noted at AEC 48which may present a risk to construction workers when working in the vicinity of the stockpile.

FIGURE 1: AREAS OF ENVIRONMENTAL CONCERN FOR WAGGA WAGGA PRECINCT ENHANCEMENT SITES (1 OF 2)

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FIGURE 2: AREAS OF ENVIRONMENTAL CONCERN FOR WAGGA WAGGA PRECINCT ENHANCEMENT SITES (2 OF 2)

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FIGURE 3: AREAS OF ENVIRONMENTAL CONCERN FOR GREATER HUME-LOCKHART PRECINCT ENHANCEMENT SITES (1 OF 3)

FIGURE 4: AREAS OF ENVIRONMENTAL CONCERN FOR GREATER HUME-LOCKHART PRECINCT ENHANCEMENT SITES (2 OF 3)

FIGURE 5: AREAS OF ENVIRONMENTAL CONCERN FOR GREATER HUME-LOCKHART PRECINCT ENHANCEMENT SITES (3 OF 3)

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FIGURE 6: AREAS OF ENVIRONMENTAL CONCERN FOR JUNEE PRECINCT ENHANCEMENT SITES (1 OF 4)

FIGURE 7: AREAS OF ENVIRONMENTAL CONCERN FOR JUNEE PRECINCT ENHANCEMENT SITES (2 OF 4)

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FIGURE 8: AREAS OF ENVIRONMENTAL CONCERN FOR JUNEE PRECINCT ENHANCEMENT SITES (3 OF 4)

FIGURE 9: AREAS OF ENVIRONMENTAL CONCERN FOR JUNEE PRECINCT ENHANCEMENT SITES (4 OF 4)

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5 ENVIRONMENTAL ASPECTS AND IMPACTS – STAGE A

5.1 Construction activities

Key aspects of Stage A activities that could result in adverse impact to waste, contamination and hazardous materials include:

- Earthworks;
- Demolition;
- Track lowering;
- Vegetation removal (soil caught in root systems of trees);
- Removal and replacement of utilities and stormwater drainage;
- Spoil and material handling, storage, treatment (of ASS/PASS as required) and disposal. ASS/PASS will be managed in accordance with the measures contained in the Construction Soil and Water Management Plan.

5.2 Contamination and hazardous materials

There is a general contamination risk present across all enhancement sites, based on their general setting within an existing rail corridor and land uses that occur in and adjacent to these areas. Where even limited ground penetration is to take place, there is some potential for source, pathway and receptor linkages to be present from contamination. A review of available information did not identify widespread significant contamination within the proposal site; however, the AECs identified in Table 5 present potential contamination risk.

The EIS concludes that this risk can be effectively managed through construction management measures, including an Unexpected Finds Procedure for Contamination. Spoil or material being reused onsite will be tested to inform waste classification and/or beneficial reuse of spoil, and further investigation would be completed to inform waste management (including management of contamination) during construction.

Based on the desktop assessment and site inspection, the risk of contamination across the proposal site is considered to be low within the context of the continuing railway land use; however, some discrete areas of medium risk have been identified, such as areas of waste within the rail corridor, fill used in the construction of the existing rail line and structures containing hazardous materials (such as lead paint and asbestos).

Based on the intensity of historical activities observed within the rail corridor, including the presence of operational facilities, and development in the surrounding area, enhancement sites within and surrounding Albury Station are considered to have a higher likelihood of contamination being present. Equally, enhancement sites with more extensive (including area and depth) excavation proposed, including Riverina Highway bridge, may also be considered to have a higher likelihood for the proposal to encounter contamination.

Contamination likely to be encountered during construction is likely to be isolated contamination hotspots across the enhancement sites and would include heavy metals, TRH, BTEX, PAHs, asbestos, lead dust and/or paint, OCPs and OPPs. Where the risk of asbestos and lead dust and/or paint has been identified, further assessment will be completed prior to construction and suitable remediation or management completed.

5.3 Waste

5.3.1 Waste generating activities

The activities likely to generate potential waste during construction include:

- Bridge modification/replacement;
- Footbridge removal/replacement;
- Gantry works;
- Track lowering;
- Track slews and related works;
- Vegetation clearing;
- Site establishment activities;
- Operation of construction and ancillary sites.

5.3.2 Estimated quantities and classification of waste to be generated

Table 6 summarises the potential waste types, their waste class, and quantities estimated to be generated during construction.

TABLE 6: CONSTRUCTION WASTE TYPES AND ESTIMATED QUANTITIES – STAGE A AND STAGE B

Waste type	Estimated quantity per precinct			
	Albury (m^3)	Wagga Wagga (m^3)	Greater Hume-Lockhart(m^3)	Junee (m^3)
Excavated material	27,300	28,400	7,800	68,500
Vegetation cleared	1,200	400	-	80
Track replacement (sleepers, ballast, rail)	3,800	6,100	2,200	5,200
Concrete piping	25	10	-	-
Mixed construction waste	45	40	-	15
Mixed demolition waste	100	550	75	400
Domestic waste (garbage)	200	150	50	100
Domestic (commingles)	200	200	50	100
Domestic waste (cardboard)	200	200	50	100
Domestic waste (food organics)	20	20	20	10

Note that the above waste types are provided as general categories only, and should not be considered an exhaustive list of material types and/or volumes generated in Stage A. Examples of additional waste streams that may generated include:

- Metal from welding and temporary and permanent fencing;
- Aggregate from track works;
- Timber from temporary and permanent fencing;
- Electrical and electronic waste from site-office facilities and public utility works;
- Waste from vehicle/plant equipment.

There is a low risk of waste entering site via illegal dumping from non-project related parties. Illegally dumped waste would be managed in accordance with the measures outlined in Section 6 and with guidance taken (where relevant) from the NSW EPA 'Report illegal dumping – RIDonline' website (https://www.epa.nsw.gov.au/your-environment/illegal-dumping/report-illegal-dumping).

5.3.3 Impacts of improperly managed waste

Potential impacts associated with aspects of improperly managed waste during construction are outlined in Table 7.

TABLE 7: POTENTIAL IMPACTS ASSOCIATED WITH IMPROPERLY MANAGED WASTE

Waste lifecycle	Impacts of improperly managed waste
Waste generation, including excavation and handling	▪ Dust from excavation, handling and movement of waste onsite; ▪ Erosion and sedimentation due to runoff from excavations; ▪ Mobilisation of acid sulfate or saline soils, where present;

Waste lifecycle	Impacts of improperly managed waste
	▪ Sediment laden/contaminated runoff and leachate generation, which, if located near to receiving watercourses, can impact water quality; ▪ Noise from plant and equipment movement.
Waste storage and separation	▪ Odours and dust from stockpiling/storage of spoil and other wastes; ▪ Cross-contamination of wastes due to improper segregation; ▪ Erosion and sedimentation due to runoff from temporary stockpiles; ▪ Sediment laden/contaminated runoff and leachate generation, which, if located near to receiving watercourses, can impact water quality; ▪ Increased volume of contaminated soils due to improper storage/segregation.
Waste transportation and disposal	▪ Dust from loading waste onto vehicles and movement of waste collection on haul roads; ▪ Road traffic noise from waste collection vehicles and from movement of spoil; ▪ Traffic due to haulage of spoil to reuse locations (such as use for fill) and/or disposal locations; ▪ Odours from loading waste onto vehicles and movement of waste collection vehicles to disposal or recycling facilities; ▪ Mud tracking on road from waste collection vehicles; ▪ Regulatory non-compliance; ▪ Contamination of recycling facilities/landfills; ▪ Contamination of soils, groundwater and/or surface water.

5.4 Cumulative impacts

5.4.1 Contamination

No cumulative impacts relating to contamination were identified in the EAD.

5.4.2 Waste

Construction waste management activities for the proposal will not have a significant impact on the environment or human health, provided mitigation measures are implemented, and construction wastes are managed in accordance with these measures. This includes the focus on the waste management hierarchy (avoid, reduce, re-use/recycle and dispose). Similarly, impacts of other identified projects in regard to construction waste are also considered negligible.

There is the potential for cumulative impacts in relation to capacity at waste management facilities within the EIS study area. The majority of the landfill and transfer stations are operated by local councils for use by residents; however, the larger landfills and transfer stations are able to accept commercial waste. Many of the facilities in remote locations do not have large capacities and they may also have restrictions on throughput. Should the closer local (but generally smaller) facilities be unable to accept the waste quantities from all projects, then there may be a requirement to truck the waste further distances to larger regional facilities.

The other projects identified in Chapter 26 of the EIS would also potentially be sending construction waste to facilities. Consultation would need to be undertaken with each local council to ensure there is sufficient capacity for waste disposal from the proposal. The generation of construction waste would be limited by avoidance and reuse programs, as far as practicable, and implementation of the waste mitigation measures provided in Section 6.

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6 MANAGEMENT AND MITIGATION – STAGE A

6.1 Contamination and hazardous materials

6.1.1 Sampling, Analysis, and Quality Plan

In accordance with UMM SC5, site investigations at more developed railway precincts (Albury and Wagga Wagga) and enhancement sites with more significant excavation (Riverina Highway bridge, Billy Hughes bridge, Pearson Street bridge and Kemp Street bridge) will be undertaken by a suitably qualified and experienced consultant, as defined in Schedule B9 of the NEPM (2013), to inform the detailed design and the subsequent management and classification of waste soil.

Any excavated material would be suitably managed in accordance with the Soil and Water Management sub-plan and the spoil management strategy (mitigation measure WM2).

The scope of site investigations will be informed by a Sampling, Analysis, and Quality Plan (SAQP) that will be prepared, or reviewed and approved, by certified site contamination consultants. A certified contamination consultant is considered to be someone who has obtained certification through either the Environment Institute of Australia or Soil Science Australia. Martinus is in the process of developing the SAQP in accordance with the project requirements. Following the development of the SAQP, contamination investigations will be completed across the project to ensure that potential risks to the project works as a result of contamination present at the site are mitigated. For Stage A, this includes the sites as listed in the Staging Report and Section 4.2.2 of the CEMP.

The results of site investigations will be reviewed against the criteria in the National Environment Protection Measures (NEPM) (2013) to identify where additional actions are required.

Any excavated material would be suitably managed in accordance with the Soil and Water Management Sub-plan and the Spoil Management Strategy (UMM WM2).

6.1.2 Unexpected Finds Procedure for Contamination

In accordance with CoA E129, an Unexpected Finds Procedure for Contamination (Appendix B) has been prepared and will be followed should unexpected contamination or asbestos (or suspected contamination) be excavated or otherwise discovered. The procedure details the process to be followed should unexpected contamination or asbestos be discovered during construction. This includes the requirements for ceasing work and isolating the potential contaminated material, requirements for site investigations, and procedures for reporting and response.

The procedure includes details of who is responsible for implementing the Unexpected Finds Procedure for Contamination and the roles and responsibilities of all parties involved. The procedure will be submitted to the Planning Secretary for information.

The Unexpected Finds Procedure for Contamination will be implemented throughout work.

6.1.3 Site Contamination Assessment Report

A Site Contamination Assessment Report will be prepared for the sampling outlined in Section 6.1.1 (where required) or if soils suspected to be contaminated are unexpectedly found.

The project will engage a suitably experienced and qualified contaminated land consultant holding valid ‘Site Contamination’ certification under the Certified Environment Practitioners Scheme (CEnvP) - Environment Institute of Australia and New Zealand or Certified Professional Soil Scientist – Contaminated Site Assessment and Management under the Soil Science Australia Certification Scheme to undertake further investigations to determine the type and extent of any contamination. The investigation must be undertaken in accordance with guidelines made or approved under the *Contaminated Land Management Act 1997* (NSW).

The results of the investigation will be documented in a Site Contamination Assessment Report.

6.1.4 Remediation Report

In accordance with CoA E124, where the results of site investigations required by CoA E123 indicate that the contamination poses unacceptable risks to human health or the environment under either the present or proposed land use, the Proponent will engage a suitably experienced and qualified contaminated land consultant to develop and implement any necessary remediation measures. The remediation measures must be documented in a Remediation Report.

6.1.5 Site Audit Statement and Site Audit Report

In accordance with CoA E125, if remediation is required under CoA E124, a Site Audit Statement and a Site Audit Report will be prepared by a NSW EPA Accredited Site Auditor. Contaminated land will not be used for the purpose approved under the terms of the planning approval until a Site Audit Statement determines the land is suitable for that purpose and any conditions on the Site Audit Statement have been complied with.

A copy of the Site Audit Statement and Site Audit Report will be submitted to the Planning Secretary and Council for information no later than one (1) month before the commencement of operation.

6.1.6 Occupational hygienist

An occupational hygienist will be engaged to complete survey of areas known or suspected to contain asbestos or lead-based paint potentially impacted by the project. Refer to Table 5 for a list of known or suspected areas to contain asbestos.

Areas of known or suspected lead-based paint relevant to Stage A include Harefield Yard clearances (AEC 41).

6.2 Waste

6.2.1 Waste management hierarchy

To achieve positive waste and resource management outcomes, the project will adopt waste management strategies in accordance with the waste hierarchy and requirements identified in the CoA, EAD, NSW Waste Avoidance and Resource Recovery Act 2001 (WARR Act) and the NSW Waste Avoidance and Resource Recovery Strategy 2014-21 (EPA 2014).

Waste generated during delivery of the Project will be dealt with in accordance with the following priorities (in order of preference):

- Waste generation is to be avoided, and where avoidance is not reasonably practicable, waste generation is to be reduced;
- Where avoiding or reducing waste is not possible, waste is to be reused, recycled, or recovered;
- Where re-using, recycling or recovering waste is not possible, waste is to be treated or disposed of at a waste management facility, premise lawfully permitted to accept the materials, 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.

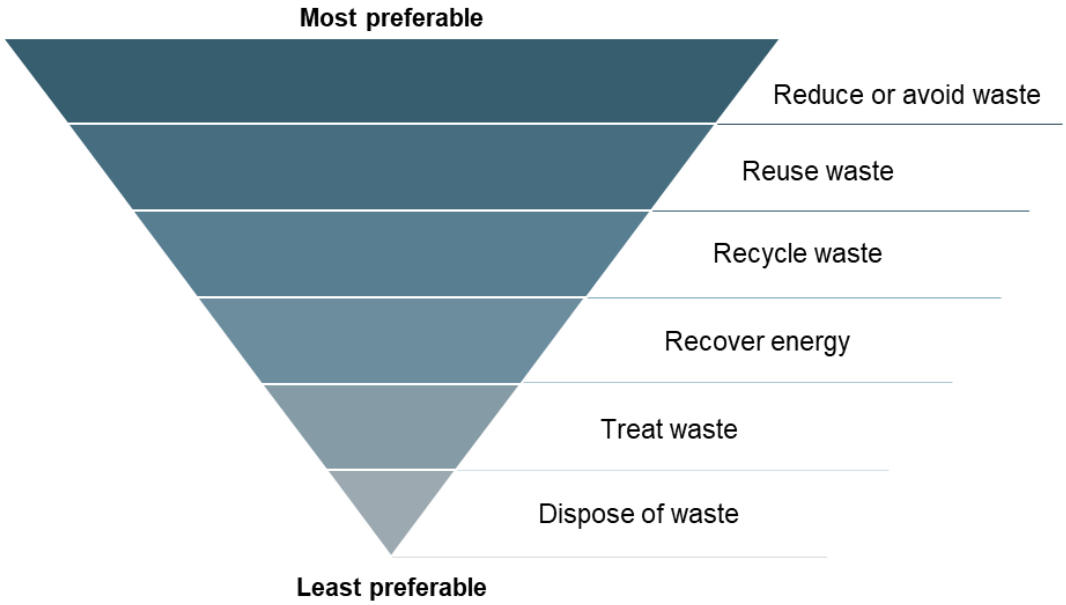

FIGURE 10: WASTE HIERARCHY

6.2.2 Waste avoidance and reduction

As demonstrated in Figure 10, the waste hierarchy nominates waste avoidance as the most important priority. During the construction phase, the following measures will be implemented to avoid creation of waste:

- Ensuring that the necessary planning is undertaken to enable efficient management of the delivery and storage of materials, to avoid spoilage of materials;
- Wherever possible, establishing agreements with suppliers for 'take back' arrangements for packaging/pallets/drums;
- Highlighting the minimisation of packaging as an important factor in the product procurement process;
- Ensuring correct types and quantities of materials are ordered, essentially avoiding excess material waste;
- Coordinating site activities to minimise waste through utilisation of unused materials;
- Employing trained and qualified plant and machinery operators to avoid damage to materials and reduce wastage of consumables during plant and machinery maintenance;
- Ensure that stored supplies are properly protected from the weather;
- Regular reporting of waste avoidance data.

6.2.3 Reuse and recycling

The project aims to minimise the amount of waste generated and disposed at landfill and contribute to a circular economy by establishing responsible waste handling and reuse procedures on all sites. Further details are contained in the Sustainability Strategy.

When avoiding or reducing waste is not possible, waste is to be reused on site or off site for the same or a similar use. It may also be recovered through recycling and reprocessing, so that waste can be processed into a similar non-waste product.

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

- Waste segregation on site (construction activities) – Waste materials, including spoil and demolition waste, will be separated on site into dedicated bins / areas for either reuse on site or collection by a waste contractor and transported to facilities off site;
- Waste segregation on site (office) – Waste within the office will be segregated on site with colour coded bins being provided for mixed recyclable, organic waste, landfill and paper. Paper bins will be provided throughout the office to encourage the recycling of scrap paper;
- Waste separation off site at an appropriately licenced facility – Wastes to be deposited into one bin where space is not available for placement of multiple bins, and the waste is to be sorted off site by a waste contractor.

When possible, waste shall be beneficially reused on or off site in accordance with relevant approvals. This may occur through the following pathways and in compliance with appropriate legislation:

- Resource recovery exemptions;
- Appropriately approved recycling facility;
- Appropriately approved developments which are able to accept waste through the use of a notice under Section 143(3A) of the POEO Act (s.143 Notice).

6.2.4 Spoil reuse

Where possible and fit for purpose, spoil would be beneficially reused as part of the project before alternative spoil disposal options are pursued. Excess or contaminated spoil which cannot be reused or recycled would be disposed of at a suitably licensed landfill, treatment or waste management facility. Spoil reuse would be prioritised in accordance with the spoil management hierarchy outlined below.

Where feasible and reasonable, spoil would be managed according to the following hierarchy:

- Minimisation of spoil generation through design and management
- Reuse of spoil within the Project
- Beneficial reuse of spoil outside the Project
- Where reuse is not possible, disposal of spoil would be the last resort.

Spoil reuse opportunities will be investigated during the construction of the project.

6.2.5 Waste handling and storage

Where waste is required to be handled and stored on site prior to either on site reuse or off-site recycling/disposal, it will be stored in accordance with Clause 42 (Schedule 1) of the POEO Act.

The following handling and storage measures will apply:

- Spoil, topsoil and mulch are to be stockpiled on site in allocated areas, where appropriate, and mitigation measures for dust control and surface water management will be implemented;
- Liquid wastes are to be stored in appropriate containers in bunded areas until transported off site. Further details are contained in the Construction Soil and Water Management Plan;
- Wastewater generated during construction activities will require collection and treatment onsite. If there is no opportunity for reuse wastewater will be discharged;
- The excavation, handling and storage of unexpected, contaminated material (i.e., ACM) will be undertaken in accordance with procedures detailed in the Unexpected Finds Procedure for Contamination (refer to Appendix B);
- Hazardous waste will be managed by appropriately qualified and licensed contractors, in accordance with the requirements of the Environmentally Hazardous Chemicals Act 1985 and the EPA waste disposal guidelines;
- Material that is identified as contaminated will be stockpiled and stored in suitable hardstand or lined areas and segregated from uncontaminated material on site to prevent cross-contamination, these stockpiles should be covered (where appropriate) and/or bunded, and signposted;
- Recyclable or previously unmentioned non-recyclable wastes will be stored in appropriately (e.g., bins or skips) on site. The bins will be regularly removed to approved disposal or recycling facilities.

6.2.6 Waste disposal and s.143 notices

Wastes and spoil that are unable to be reused, recycled on site will be disposed of off-site to an appropriately licenced waste management facility or spoil management sites following classification. The disposal of any waste including spoil generated from the construction of the Project is to be in accordance with the POEO Act and the WARR Act.

All waste generated during construction that is to be disposed of will be classified in accordance with the Waste Classification Guidelines (EPA 2014) (refer to Section 6.2.9), with appropriate records and disposal dockets retained for audit purposes). Details of waste types, volumes and destinations are to be recorded in the Waste and Spoil Management Tracking Register.

In the event that a waste is to be transported to a non-licensed facility for disposal the contractor would arrange for a notice under Section 143(3A) of the POEO Act to be completed and signed by the owner of the waste facility to demonstrate they are legally permitted to accept the waste type. This includes waste transported for reuse, recycling, disposal or stockpiling.

Waste in this context includes spoil, Virgin Excavated Natural Material (VENM), Excavated Natural Material (ENM), ballast, reclaimed asphalt pavement, mulched vegetation, waste concrete, etc.

Section 143 Notices must include:

- A letter, and a blank Section 143 Notice sent to the landholder that will receive the waste;
- An accurate description of the waste;
- Evidence that the waste site has the appropriate planning consent;
- Confirmation of the waste delivery arrangements with the landholder prior to transporting materials to the waste site;
- A copy of the s.143 Notice is provided to the waste transporter, who will be made aware of the waste's classification and the details on the s.143 Notice.

Waste will only be exported to a site that can lawfully accept it 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 in accordance with CoA E166.

Disposal of the spoil material will not occur until the Martinus Rail Environment, Approvals and Sustainability Manager (ER ESM) or delegate has released the s.143 Notice Hold Point.

6.2.7 Waste classification

Waste classification will be undertaken in accordance with the Waste Classification Guidelines (EPA 2014). Part 1 of the Waste Classification Guidelines (EPA 2014) identifies six classes of waste: Special, Liquid, Hazardous, Restricted Solid, General Solid (putrescible) and General Solid (non-putrescible) and describes a six-step process to classifying waste.

The general classification principles are as follows:

- If a special waste is mixed with another waste, the waste must be managed to meet the requirements of both the special wastes and the other class of waste;
- If asbestos waste is mixed with any other class of waste, all of the waste must be classified as asbestos waste;

- If liquid waste is mixed with hazardous or solid waste and retains the defined characteristics of liquid waste, it remains liquid waste;
- Two or more classes of waste must not be mixed in order to reduce the concentration of chemical contaminants. Dilution is not an acceptable waste management option;
- Where practicable, it is desirable to separate a mixture of wastes before classifying them.

The waste classification process is described below:

Step 1: Is it 'special waste'?

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

Note: Asbestos and clinical wastes will be managed in accordance with the requirements of Part 7 of the Protection of the Environment Operations (Waste) Regulation 2014.

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

If it is established that the waste is not special waste it will be decided if 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 2014;
- Non-trackable liquid waste.

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

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

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

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

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

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

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

Waste is assessed by comparing specific contaminant concentrations of each chemical contaminant, and where required the leachable concentration using the toxicity characteristics leaching procedure, against contaminant thresholds.

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

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

6.2.8 Waste exemptions – Resource Recovery Orders and Exemptions

Clause 91 *Protection of the Environment Operations (Waste) Regulation 2014* enables the EPA to grant exemptions to the licensing and payment of levies for the land application or use of waste. Under the *Protection of the Environment Operations (Waste) Regulation 2014*, there are a number of resource recovery orders and resource recovery exemptions currently in force.

Relevant Resource Recovery Exemptions and Orders that may be applicable to this project are included in Table 8. These are general gazette exemptions that do not require additional approval. The management of waste under an RRO/RRE will be done in accordance with the conditions contained in the relevant RRO/RRE.

TABLE 8: RRO/RRES THAT MAY BE APPLICABLE TO THE PROJECT

Exemption/Order	General conditions
General Orders and Exemptions	
The Excavated Natural Material Order and Exemption (2014)	The chemical concentration or other attributes of the excavated natural material listed in the Excavated Natural Material Exemption must not be exceeded. The excavated natural material can only be applied to land as engineering fill or used in earthworks. Material handling, processing and testing requirements are outlined in detail in the order and exemption.
The Excavated Public Road Material Order and Exemption 2014	To meet the requirements of this order and exemption, material can only be stored within the road corridor at the site where it is to be applied to land. Excavated public road material can only be applied to land within the road corridor for public road related activities including road construction, maintenance and installation of road infrastructure facilities. This exemption does not apply to the application of material on any land outside the road corridor. The Excavated Public Road Material Exemption does not apply to private land. This order applies to excavated public road material. In this order, excavated public road material means materials that have been excavated during the construction and maintenance of council and RMS public roads and public road infrastructure facilities. The consumer must apply the relevant waste within a reasonable period of time.

The Reclaimed Asphalt Pavement Order and Exemption 2014	Reclaimed asphalt can only be:
	
	• Applied to land for road related activities including road construction or road maintenance activities, being:
	  ○ A use as a road base and sub base;
	  ○ Applied as a surface layer on road shoulders and unsealed roads; and
	  ○ Use as engineering fill material.
	• Used as an alternative raw material in the manufacture of asphalt.
	• Must not contain a detectable quantity of coal tar or asbestos.

The Recovered Aggregate Order and Exemption 2014	The chemical concentration or other attribute of the recovered aggregate listed in the Recovered Aggregate Order must be met.
	
	The recovered aggregate material can only be applied to land for road making activities, building, landscaping and construction works. The order and exemption do not apply to any of the following applications:
	
	• Construction of dams or related water storage infrastructure;
	• Mine site rehabilitation;
	• Quarry rehabilitation;
	• Sand dredge pond rehabilitation;
	• Back-filling of quarry voids;
	• Raising or reshaping of land used for agricultural purposes;
	• Construction of roads on private land unless:
	  ○ The relevant waste is applied to land to the minimum extent necessary for the construction of a road;
	  ○ A development consent for the development has been granted under the relevant environmental planning Instrument.

The Recovered Railway Ballast Order and Exemption 2014	The material must meet all chemical and other material requirements for recovered railway ballast listed in the Recovered Railway Ballast Order. The recovered railway ballast can only be applied to land for building or maintaining railway infrastructure or for road making activities.

Exemption/Order	General conditions
The Stormwater Order and Exemption 2014	Stormwater can be applied to land by: • Spraying, spreading or depositing on the land; • Ploughing, injecting or mixing into the land; and • Filling, raising, reclaiming or contouring the land.
The Mulch Order and Exemption	The raw mulch can only be applied to land for the purposes of filtration or as a soil amendment material or used either singularly or in any combination as input material(s) to a composting process. The consumer must land apply the raw mulch within a reasonable period of time.
ARTC Named Orders	
ARTC Excavated Materials	ARTC excavated material means soil, sand, ballast, rock or aggregate that is derived through activities within the ARTC rail corridor, including redevelopment and reconditioning of railway lines, access roads and other ancillary railway systems. This order applies to ARTC excavated material that is, or is intended to be, applied to land for the purposes of: • Earthworks during construction activities on land zoned for industrial uses • Building or maintaining railway infrastructure Public road related activities within the road corridor, including road construction, maintenance and installation of public road infrastructure facilities.
ARTC Timbers Exemption	This order applies to ARTC waste timbers that are applied to land in civil engineering structures, as a soil amendment or as an input to compost. The chemical concentration or other attributes listed in the ARTC Waste Timbers Order must not be exceeded. ARTC waste timbers means turnout timbers, transoms and timber sleepers that: • Have been sourced from ARTC Inland Rail Network or from ARTC Railway Network as defined in EPL 3142 • Have been generated from ARTC re-sleepering programs and emergency track work • Have not been sourced from the Armidale – Werris Creek Line • Have not been sourced from locations within the ARTC Contaminated Land Database Meet all the criteria of the ARTC Waste Timber Separation and Management Protocol.

Specific exemptions may be granted where an application is made to the EPA, and it is likely that the Project team will seek additional exemptions as the project is delivered.

6.2.9 Waste transportation

Waste removed from project will be tracked using a Waste Register to record waste movements from cradle to grave, including but not limited to movement of waste within the boundaries of the site. The register will consolidate GPS tracking, landfill receival receipts, section 143 Notices and resource recovery order/exemption details. Specifically, the following details will be recorded:

1. Date;
2. Waste type/stream;
3. Waste classification;
4. Reference to Classification Report;
5. Quantity / Volume;
6. Source location;
7. Intended end use;

8. Waste receiver details;
9. Waste transport details;
10. Vehicle number / registration;
11. Landfill docket numbers.

All relevant documentation such as dockets and receipts will be retained within the Waste Tracking Register.

6.2.10 Waste tracking

Under the *Protection of the Environment Operations (Waste) Regulation 2014* (Waste Regulation), the transport and disposal of certain high-risk or hazardous waste must be tracked when it is transported into, within or out of NSW.

Consistent with the Waste Regulation the following wastes potentially encountered/generated are required to be tracked within NSW:

- Hazardous Wastes as defined by Table 3 on the NSW EPA Waste Tracking website (https://www.epa.nsw.gov.au/your-environment/waste/tracking-transporting-hazardous-waste/waste-must-tracked);
- Liquid Waste (Category 1 trackable waste);
- More than 100 kilograms of asbestos waste or more than 10 square meters of asbestos sheeting in any single load;
- Waste oil/water, hydrocarbon/water mixtures emulsions;
- Wastes listed in Table 1 on the NSW EPA Waste Tracking website (https://www.epa.nsw.gov.au/your-environment/waste/tracking-transporting-hazardous-waste/waste-must-tracked).

A waste Transport Certificate is the document used to record the transport of a load of trackable waste from the consignor to the receiving facility. The Transport Certificate is created from a Consignment Authorisation by the consignor, transporter or receiving facility nominated on the Consignment Authorisation.

The creation of the Consignment Authorisation is done by the receiving facility, while the transport certificates that must accompany each load can be created by any of the relevant parties (consignor, transporter or receiver) – where they have the required access to the online waste tracking system.

The EPA's Integrated Waste Tracking Solution (IWTS) will be used to track hazardous and other high-risk wastes, as required. The IWTS is a digital tool that enables waste consignors, transporters and receivers to track and report on the transport of hazardous and regulated waste. It is a key step towards delivering a nationally consistent hazardous waste tracking and data system, a commitment under the National Waste Policy Action Plan and NSW Waste and Sustainable Materials Strategy 2041.

Details of waste types (including spoil and waste subject to a Resource Recovery Order and/or Exemption), volumes and destinations will be recorded in the Waste and Spoil Management Register for all waste movements off site and, where required, on site. Martinus will use Inland Rail's Waste and Recycling Data Collection form to track all waste types. The Waste and Spoil Management Register will include:

- The quantity of each type of waste generated, its classification and source location (recorded using latitude and longitude coordinates);
- Whether the waste or spoil is suitable for reuse;
- The address and facility/business names of destination location(s) for all wastes generated during construction;
- Written confirmation from each place of disposal that they can lawfully receive the types of waste proposed to be transported there;
- The quantities of any waste types imported onto the CSSI site, including their classification and emplacement location (recorded using latitude and longitude coordinates);
- Details of all waste received on the premises or transported off the premises that is subject to a resource recover order and/or exemption, and demonstrating that the waste meets the requirements of the Order and/or Exemption;
- Disposal records demonstrating that receiving facilities have lawfully accepted the waste type; and
- Records of all compliance checks.
- Auditing to final destination of significant waste streams must be undertaken at least 6 monthly for construction.

6.3 Management and mitigation measures

A range of environmental requirements and management measures are identified in the EAD and CoA. Specific measures and requirements to address impacts to waste, contamination and hazardous materials are outlined in Table 9. The following mitigation measures have been developed with consideration of SMART (specific, measurable, achievable, relevant and time-based) principles.

TABLE 9: WASTE, CONTAMINATION AND HAZARDOUS MATERIALS MANAGEMENT AND MITIGATION MEASURES – STAGE A

ID	Management measure	Location	When to implement	Responsibility for implementation	Reference or source	Evidence of implementation
Waste						
W1	The resource management hierarchy principles established under the Waste Avoidance and Recovery Act 2001 of avoid/reduce/reuse/ recycle/dispose will be applied.	All	Pre-construction Construction	MR Superintendent/Supervisor MR Construction Manager	UMM WM1 CoA E164	Waste and Spoil Management Tracking Register
W2	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 the CSSI, or be done in accordance with a Resource Recovery Exemption or Order issued under the Protection of the *Environment Operations (Waste) Regulation* 2014, as the case may be.	All	Pre-construction Construction	MR Superintendent/Supervisor MR Construction Manager	UMM WM3 CoA E165	Waste and Spoil Management Tracking Register
W3	All staff and subcontractors will receive a site induction and ongoing toolbox talks that detail waste and resource management measures (including the waste management hierarchy).	All	Pre-construction Construction	MR Superintendent/Supervisor MR Construction Manager	Best practice	Induction records
W4	Waste must only be exported to a site that can lawfully accept it 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. Note: Notice must be given to the relevant site/s as soon as possible, and no more than 14 days before the proposed waste disposal.	All	Pre-construction Construction	MR Superintendent/Supervisor MR Construction Manager	UMM WM3 CoA E166	Waste Classification Reports Waste and Spoil Management Tracking Register records Waste Dockets

ID	Management measure	Location	When to implement	Responsibility for implementation	Reference or source	Evidence of implementation
W5	All waste generated during construction and operation must be classified in accordance with the EPA's Waste Classification Guidelines, with appropriate records and disposal dockets retained for audit purposes.	All	Pre-construction Construction	MR Superintendent/Supervisor MR Construction Manager	CoA E167	Waste Classification Reports Waste and Spoil Management Tracking Register records Waste Dockets
W6	A Waste and Spoil Management Tracking Register will be maintained until the construction completion date, to record the type, amount and location of waste reused, recycled, stockpiled and disposed of.	All	Prior to construction Construction	MR Construction Manager MR ESM	Best practice	Waste and Spoil Management Tracking Register records
Contamination and hazardous materials						
HZ1	The discovery of previously unidentified contaminated material will be managed in accordance with the Unexpected Finds Procedure for Contamination (Appendix B).	All	Pre-construction Construction	MR Superintendent/Supervisor MR Construction Manager	UMM SC6 CoA E129	Unexpected Finds Procedure
HZ2	An occupational hygienist will be engaged to complete survey of areas known or suspected to contain asbestos or lead-based paint potentially impacted by the project. This would include (but is not limited to) areas with known or suspected asbestos or lead-based paint, including Harefield Yard clearances (AEC 41).	All	Pre-construction Construction	MR Superintendent/Supervisor MR Construction Manager	UMM SC7	Certified occupational hygienist certificate Hazardous materials survey and report
HZ3	An appropriately licensed asbestos removal contractor will be engaged to remove all asbestos identified to be present. Removal will be undertaken in accordance	All	Construction	MR Superintendent/Supervisor	UMM SC8	Certified occupational

ID	Management measure	Location	When to implement	Responsibility for implementation	Reference or source	Evidence of implementation
	with How to Safely Remove Asbestos Code of Practice (Safe Work Australia, 2020) and relevant regulatory requirements.			MR Safety Manager		hygienist certificate Removal notice/permit Clearance certificate
HZ4	If soils suspected to be contaminated are unexpectedly found, the project must engage a suitably experienced and qualified contaminated land consultant to undertake further investigations to determine the type and extent of any contamination. Where the results of site investigations indicate that the contamination poses unacceptable risks to human health or the environment under either the present or proposed land use, the project must engage a suitably experienced and qualified contaminated land consultant to develop and implement any necessary remediation measures. If remediation is required, a Site Audit Statement and a Site Audit Report must be prepared by a NSW EPA Accredited Site Auditor.	All	Construction	MR Superintendent/Supervisor MR Safety Manager	UMM SC9 CoA E123 CoA E124 CoA E125	Site Contamination Assessment Report Remediation Report Site Audit Statement Site Audit Report
HZ5	If unexpected lead-based paint is found at localised areas on structures to be modified will be appropriately removed and/or managed in accordance with the lead risk work outlined in the *Work Health and Safety Regulation* (2017). Lead-based paint removal will be performed in accordance with the procedure outlined in *AS/NZS 4361.2:2017 Guide to hazardous paint management,*	All	Construction	MR Superintendent/Supervisor MR Safety Manager	UMM SC10	Certified occupational hygienist certificate Removal notice/permit Clearance certificate

ID	Management measure	Location	When to implement	Responsibility for implementation	Reference or source	Evidence of implementation
	Part 1: Lead and other hazardous metallic pigments in industrial applications (Standards Australia, 2017)					

7 COMPLIANCE MANAGEMENT

7.1 Roles and responsibilities

The project's organisational structure and overall roles and environmental responsibilities are outlined in Section 6.1 of the CEMP. Specific responsibilities for the implementation of waste, contamination and hazardous materials management are detailed in Section 7.1 of this Plan.

7.2 Training

7.2.1 Inductions

All personnel who carry out works with the potential to impact waste, contamination and hazardous materials including employees, contractors and utility staff will undergo site induction training. The induction training will address site and/or construction activity specific impacts relating to waste, contamination and hazardous materials management including:

- The requirements of this Plan;
- Relevant legislation and guidelines;
- The relevant management and mitigation measures;
- Making the personnel working on site aware of and explaining the procedures to follow in the event of any unexpected contamination finds (refer to the Unexpected Finds Procedure for Contamination in Appendix B).

Further details regarding staff induction and training are outlined in Section 6.2 of the CEMP.

7.2.2 Daily pre-start meetings

Daily pre-start meetings conducted by the MR Area Manager, MR Site Supervisor (or other delegate) will inform the site workforce of any environmental issues relevant to waste and contamination that may be impacted by, or impact on, the day's activities.

Further details regarding staff induction and training are outlined in Section 6.2 of the CEMP.

7.3 Inspections and monitoring

The ESM or delegate will conduct regular inspections of sensitive areas, exclusion zones and activities with the potential to impact waste, contamination and hazardous materials for the duration of the project works. The ER will also conduct independent inspections to confirm compliance with management requirements.

Requirements and responsibilities in relation to monitoring and inspections are documented in Section 7.1 and Section 7.2 of the CEMP.

7.3.1 Auditing

Audits (both internal and external) will be undertaken to assess the effectiveness of management measures, compliance with this Plan, CoA and other relevant approvals, licenses, and guidelines. Audit requirements are detailed in Section 9.1 and Section 9.2 of the CEMP.

7.3.2 Reporting and identified records

General reporting requirements and responsibilities for the project's works are documented in Section 10.2 of the CEMP.

In the event of any unexpected contamination find, all reporting will be undertaken as required in accordance with the Unexpected Finds Procedure for Contamination (Appendix B).

Martinus Rail will maintain accurate records substantiating all construction activities associated with the or relevant to the CoAs, including measures taken to implement this Plan. Records will be made available to DPHI upon request, within the timeframe nominated in the request.

8 REVIEW AND IMPROVEMENT

8.1 Continuous improvement

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

Issues requiring management during construction (including cumulative impacts), as identified through ongoing environmental risk analysis, will be managed through SMART principles.

The continuous improvement process will be designed to:

- Identify areas of opportunity for improvement of environmental management and performance;
- Identify environmental risks not already included in the risk register;
- Determine the cause or causes of non-conformances and deficiencies;
- Develop and implement a plan of corrective and preventative action to address any non-conformances and deficiencies;
- Verify the effectiveness of the corrective and preventative actions;
- Document any changes in procedures resulting from process improvement;
- Make comparisons with objectives and targets.

The ESM will be responsible for ensuring project environmental risks are identified and included in the risk register and appropriate mitigation measures implemented throughout the construction of the project as part of the continuous improvement process. The process for ongoing risk identification and management during construction is outlined in Section 10.4 of the CEMP.

8.2 Update and amendment

The processes described in Section 10.4 of the CEMP may result in the need to update or revise this Plan.

Any revisions to this Plan will be in accordance with the process outlined in Section 10.4 of the CEMP.

A copy of the updated Plan and changes will be distributed to all relevant stakeholders in accordance with the approved document control procedure.

APPENDICES

APPENDIX A

Secondary CoAs and UMMs

TABLE A1-A: SECONDARY COAS APPLICABLE TO THIS PLAN

No.	Requirement	Where addressed
E123	If soils suspected to be contaminated are unexpectedly found, the Proponent must engage a suitably experienced and qualified contaminated land consultant to undertake further investigations to determine the type and extent of any contamination. The investigation must be undertaken in accordance with guidelines made or approved under the *Contaminated Land Management Act* 1997 (NSW). The results of the investigation must be documented in a Site Contamination Assessment Report.	Section 6.1.3
E124	Where the results of site investigations required by Condition E123 indicate that the contamination poses unacceptable risks to human health or the environment under either the present or proposed land use, the Proponent must engage a suitably experienced and qualified contaminated land consultant to develop and implement any necessary remediation measures. The remediation measures must be documented in a Remediation Report.	Section 6.1.4
E125	If remediation is required under Condition E124, a Site Audit Statement and a Site Audit Report must be prepared by a NSW EPA Accredited Site Auditor. Contaminated land must not be used for the purpose approved under the terms of this approval until a Site Audit Statement determines the land is suitable for that purpose and any conditions on the Site Audit Statement have been complied with.	Section 6.1.5
E126	Nothing in Conditions E123 to E125 prevents the Proponent from preparing a single Site Contamination Report or Remediation Report or obtaining a single Site Audit Statement and Site Audit Report for the entire CSSI.	Section 6.1.5
E127	A copy of the Site Audit Statement and Site Audit Report must be submitted to the Planning Secretary and Council for information no later than one (1) month before the commencement of operation.	Section 6.1.5
E128	An Unexpected Finds Procedure for Contamination must be prepared before the commencement of Work and must be followed should unexpected contamination or asbestos (or suspected contamination) be excavated or otherwise discovered. The procedure must include details of who will be responsible for implementing the unexpected finds procedure and the roles and responsibilities of all parties involved. The procedure must be submitted to the Planning Secretary for information.	Section 6.1.2 Appendix B
E129	The Unexpected Finds Procedure for Contamination must be implemented throughout Work.	Section 6.1.2 Appendix B
E164	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; b) where avoiding or reducing waste is not possible, waste must be re-used, recycled, or recovered in accordance with the requirements of the *Protection of the Environment Operations Act* 1997 and its regulations; and c) where re-using, recycling or recovering waste is not possible, waste must be treated or disposed of in accordance with Condition E166.	Section 6.2.1
E165	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 the CSSI, or be done in accordance with a Resource Recovery Exemption or Order issued under the *Protection of the Environment Operations (Waste) Regulation* 2014, as the case may be.	Section 6.2

No.	Requirement	Where addressed
E166	Waste must only be exported to a site that can lawfully accept it 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. Note: Notice must be given to the relevant site/s as soon as possible, and no more than 14 days before the proposed waste disposal.	Section 6.2
E167	All waste generated during construction and operation must be classified in accordance with the EPA's Waste Classification Guidelines, with appropriate records and disposal dockets retained for audit purposes.	Section 6.2

TABLE A1-B: SECONDARY UMMS APPLICABLE TO THIS PLAN

No.	Requirement	Where addressed
SC5	Site investigations at more developed railway precincts (Albury and Wagga Wagga) and enhancement sites with more significant excavation (Riverina Highway bridge, Billy Hughes bridge, Pearson Street bridge and Kemp Street bridge) will be undertaken by a suitably qualified and experienced consultant, as defined in Schedule B9 of the NEPM (2013), to inform the detailed design and the subsequent management and classification of waste soil. The scope of site investigations will be informed by a Sampling, Analysis, and Quality Plan (SAQP) that will be prepared, or reviewed and approved, by certified site contamination consultants. The results of site investigations will be reviewed against the criteria in the *National Environment Protection Measures* (NEPM) (2013) to identify where additional actions are required. Any excavated material would be suitably managed in accordance with the Soil and Water Management sub-plan and the spoil management strategy (mitigation measure WM2).	Section 6.1.1
SC6	In the event that unidentified contaminated material is discovered during construction, an unexpected contaminated finds protocol will be implemented. The protocol will be prepared, or reviewed and approved, by certified site contamination consultants and detail requirements for ceasing work and isolating the potential contaminated material, requirements for site investigations, and procedures for reporting and response. Site investigations, where required, will be undertaken by a suitably qualified and experienced consultant, as defined in Schedule B9 of the NEPM (2013) to assess exposure risks to site workers and other receivers. The results of the site investigations will be assessed against the criteria contained within the *National Environment Protection (Assessment of Site Contamination) Measure* 1999 to determine the need for any remediation.	Section 6.1.2 Appendix B
SC7	An occupational hygienist will be engaged to complete survey of areas known or suspected to contain asbestos or lead-based paint potentially impacted by the proposal. This work will be carried out in accordance with asbestos and lead-based paint management controls contained in the contamination and hazardous materials sub-plan of the CEMP. This would include (but is not limited to) areas with known or suspected asbestos or lead-based paint, including Murray River bridge (AEC 1), The Rock Yard clearances (AEC 27), buildings at Wagga Wagga Yard clearances (AEC 35), Harefield Yard clearances (AEC 41) and buildings at Junee Yard clearances (AEC 42). Lead paint is known to be present at Murray River bridge (AEC 1).	Section 6.1.6
SC8	An appropriately licensed asbestos removal contractor will be engaged to remove all asbestos identified to be present. Removal will be undertaken in accordance with *How to*	Section 6.3

No.	Requirement	Where addressed
	Safely Remove Asbestos Code of Practice (Safe Work Australia, 2020) and relevant regulatory requirements. This work will be carried out in accordance with asbestos management controls contained in the contamination and hazardous materials sub-plan of the CEMP.	HZ3
SC9	Lead-based paint at localised areas on structures to be modified will be appropriately removed and/or managed in accordance with the lead risk work outlined in the *Work Health and Safety Regulation* (2017).	Section 6.1.6
SC10	Lead-based paint removal will be performed in accordance with the procedure outlined in *AS/NZS 4361.2:2017 Guide to hazardous paint management, Part 1: Lead and other hazardous metallic pigments in industrial applications* (Standards Australia, 2017)	Section 6.1.6
WM1	Detailed design would include measures to minimise spoil generation as far as practicable. This would include a focus on optimising the design to minimise spoil volumes and the reuse of material onsite.	Section 6.2.1
WM2	A spoil management strategy would be developed to define the preferred approach to managing spoil. The strategy would include: ▪ confirming spoil quantities ▪ undertaking appropriate investigations and surveys, including geotechnical investigations ▪ consideration of the approvals and land application of waste exemptions required, associated lead time, and any associated sampling and reporting obligations ▪ defining the preferred option for reusing and/or disposing of any spoil that cannot be reused The outcomes of the strategy would inform the construction waste management sub-plan.	Spoil Management Strategy
WM3	All waste generated would be classified in accordance with the *Waste Classification Guidelines* (NSW EPA, 2014a) and disposed of in accordance with the relevant requirements of the *Protection of the Environment Operations (Waste) Regulation* 2014.	Section 6.2.7 Section 6.2.6

APPENDIX B

Unexpected Finds Procedure for Contamination

UNEXPECTED FINDS PROCEDURE FOR CONTAMINATION

MANAGEMENT AND RESPONSIBILITY

INDUCTION/ TOOLBOX TALKS
All personnel are to receive Project/ Site Inductions and on-going training via Toolbox Talks

All personnel

EVIDENCE OF CONTAMINATION OBSERVED

STOP ALL WORK IN THE AREA IMMEDIATELY AND

PREVENT FURTHER ACTIVITY IN THE AREA.

NOTIFY THE SITE SUPERVISOR AND SAFETY MANAGER , ENVIRONMENT MANAGER AND CORDON OFF AREA.

Site Supervisor
Project Manager
Lead Safety Manager
Environment Manager

- Do not touch or disturb the item/ material
- Delineate the find from the rest of the worksite
- Inform the Environment Manager regarding the potential contamination find. The following detail should be provided:
  - The location of the potential contamination
  - Visual appearance
  - Odour (if any)
  - Depth
  - Surrounding material and works being undertaken at the time of discovering the material
- WHS and EM to determine immediate actions to prevent WHS and ENV issues
- EM to notify IR of Unexpected Find

ASSESSMENT

Contamination Consultant to assess and classify the unexpected find in accordance with the NSW regulatory requirements, including sampling and laboratory analysis.

Contamination Consultant

MANAGEMENT STRATEGY

- Contamination Consultant to develop a provide a plan for managing and/or remediating the material
- IR/ARTC to review and accept the proposed strategy

Environment Manager
Contamination Consultant
IR/ARTC

STRATEGY IMPLEMENTATION

- Implement the approved management and/or remediation as per the Contamination consultants direction
- IR/ARTC to review and accept the proposed strategy (if required)

Contamination Consultant
Site Supervisor
Environment Manager

Once the contamination find has been mitigated and clearance report received from the contamination consultant. EM is to notify Project Manager who is to approve re-commencement of works in the vicinity of the remediation site. IR/ARTC will review clearance report and must provide approval/acceptance prior to recommencing works

Environment Manager
Project Manager
IR/ARTC

Recommence works

Asbestos

An unexpected find occurs when Asbestos Containing Material (ACM) not identified in the Asbestos Register is found on site. In the event of an unexpected find the below steps are to be followed:

1. The area is to be demarcated, works in the area to cease and workers notified
2. Notify the Site Supervisor first. Site Supervisor will then notify the Project Manager, Safety Manager and Environment Manager.
3. Notify IR/ARTC within five (5) business days after the discovery.
4. Control dust by with dust suppression
5. A certified occupational hygienist is to be engaged to provide recommendations to manage the area
6. Occupational hygienist arrange for testing of the suspected ACM and monitoring of the area (if required)
7. The area is to be made safe as per the certified

Contamination Consultant

Works undertaken in relation to Contamination to investigate, assess, remediate or validate remediation or land use suitability shall be undertaken by a suitably qualified person holding valid 'Site Contamination' certification under the Certified Environment Practitioners Scheme (CEnvP) - Environment Institute of Australia and New Zealand or Certified Professional Soil Scientist – Contaminated Site Assessment and Management under the Soil Science Australia Certification Scheme.

With relevant qualifications and experience in keeping with the National Environmental Protection (Assessment of Site Contamination) Measure 1999 Amendment 2013 (ASC NEPM 2013).

Procedure

1) Potential contaminated soil/material encountered during construction activities. STOP ALL WORK AND NOTIFY IMMEDIATELY
2) Undertake a site/area contamination investigation. The Environment Manager (EM) is to assess the situation and if considered necessary, commission a suitably qualified contamination specialist to undertake a contamination investigation in the area of the find.
3) The consultation specialists in consultation with the EM will determine the appropriate management measures to be implemented. This may include leaving contamination undisturbed if it does not pose unacceptable risks to human health or the environment, capping of contamination, treatment or offsite disposal. If the material is to be disposed of offsite, ensure the waste facility is appropriately licensed. Contaminated material requiring off-site disposal is to be classified in accordance with the Waste Classification Guidelines – Part 1: Classification of Waste, NSW EPA 2014. Maintain records to demonstrate waste material was appropriately managed
4) If the material is determined to be Acid Sulfate Soil (ASS) or Potential Acid Sulfate Soil (PASS), an Acid Sulfate Soil Management Plan would be prepared and implemented in accordance with the Acid Sulfate Soil Manual (Acid Sulfate Soil Management Advisory Committee, August 1998).
5) Prior to any contamination investigation, management or remediation activities appropriate work method documentation encompassing safety and environmental risk management will be prepared for review and approval by the EM and IR
6) If required a Remedial Action Plan (RAP) will be prepared in accordance with legislative requirements
7) If material is to be treated and reused or left in situ ensure appropriate records are maintained and location of material (survey) is undertaken and provided to IR
8) Once the contamination find has been mitigated and clearance report received from the contamination consultant. This report is to be submitted to IR/ARTC for acceptance prior to recommencement of work
9) EM is to notify Project Manager who is to approve re-commencement of works in the vicinity of the remediation site.

APPENDIX C

ISC Requirements

ISC Credit		Where addressed
Waste Management (Was-1)		
Level 1 Benchmark	Predictions for waste quantities and types have been developed for construction and operation. AND Measures to minimise waste during construction and operation have been identified and implemented AND Monitoring of all wastes is undertaken during construction	Section 5.3.2 Section 6.3 Section 6.2.3
Must Statement from v1.2 ISC Technical Manual	A Waste Management Plan (or similar) must demonstrate that the waste hierarchy was applied: 1. Avoid 2. Reduce 3. Reuse 4. Recycle 5. Disposal If an option less favourable than the first option is selected, then justification for not selecting options higher on the hierarchy must be provided. The monitoring would need to be regular (e.g. monthly) throughout the relevant rating phases as well as showing totals for the whole rating period.	Section 6.2.1 Section 6.2.2 Section 6.2.3
Level 2 Benchmark	Waste monitoring and management has been managed, reviewed or audited by a suitably qualified professional AND Waste handling and disposal/recycling all the way to final destination has been audited at appropriate intervals	Section 7.3.1 Section 6.2.9
Must Statement from v1.2 ISC Technical Manual	Waste monitoring and management must be managed, reviewed or audited by a suitably qualified professional.	Section 6.2.10
Must Statement from v1.2 ISC Technical Manual	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.	Section 6.2.10
Must Statement from v1.2 ISC Technical Manual	The audit need only focus on the significant waste streams and each audit may cover particular significant waste stream(s) as long as the full set is covered over the rating period. 'Significant' waste streams are to be justified taking into account the volume and nature of the wastes.	Section 6.2.10

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