INLAND RAIL

ILLABO TO STOCKINBINGAL PROJECT

Waste Management Plan

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Signature **Date**	JOHN HOLLAND Document Number 5-0019-220-PMA-00-PL-0071 Revision 0 **Approved** Mr Daniel Lidbetter - John Holland Pty Ltd Aug 19, 2025, 4:27 PM GMT+10:00 This review has been completed using Aconex Workflow for the Inland Rail - Illabo to Stockinbingal (I2S) Project.	JOHN HOLLAND Document Number 5-0019-220-PMA-00-PL-0071 Revision 0 **Approved** Mr Andy Robertson - John Holland Pty Ltd Aug 21, 2025, 2:22 PM GMT+10:00 This review has been completed using Aconex Workflow for the Inland Rail - Illabo to Stockinbingal (I2S) Project.

Revision History

REVISION	DATE ISSUED	DESCRIPTION
A	8/01/2025	Issued for Review
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1 References, Definitions and Abbreviations

1.1 Compliance Roadmap

The following section provides a tabular representation of the project requirements as described in the conditions of approval and a reference link to detail how I2S intend to comply.

This Waste Management Plan (WMP) provides a consistent approach to address the requirements of both the State and Federal approvals in a single document. The requirements of the State and Federal conditions relevant to the development of this WMP are shown in Section 1.1. A cross reference is also included to indicate where each CoA is addressed in this Plan or other Project management documentation.

1.1.1 State Legislation

The following tables provide the conditions required under the Crown Land Management Act 2016 (Licence Number RN-639859) relating to the Waste Management Plan.

Table 1-1: Crown Land Management Act 2016 CoA (LICENCE NUMBER RN 639859)

Ref	Issue	Measure / Requirement	Timing	Document Reference
Schedule 2a - SPECIAL CONDITIONS RELATING TO WHOLE OF LAND				
12.	Waste disposal	The holder acknowledges that all waste generated will be removed from site and disposed as per NSW Environment Protection Authority and local Council's policies, and in accordance with any requirements of the CSSI Project Approval.	Construction	This Plan

1.1.2 State Conditions of Approval

The following table provides the CoA relevant to waste management under SSI-9406.

Table 1-3: NSW CoA relevant to the WMP (SSI-9406)

Ref	Issue	Measure / Requirement	Timing	Document Reference
WASTE				
E163	Waste Management	Waste generated during construction and operation is to be dealt with in accordance with the following priorities: (a) waste generation is to be avoided and where avoidance is not reasonably practicable, waste generation is to be reduced; (b) where avoiding or reducing waste is not possible, waste is to 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 is to be treated or disposed of in accordance with Condition E165.	Prior to construction During construction Operation	Section 3
E164	Waste Management	The importation of waste and the storage, treatment, process, 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.	During construction Operation	Section 4
E165	Waste Management	Waste must only be exported to a site licensed by the EPA for the storage, treatment, processing, reprocessing or disposal of the subject waste, or in accordance with a Resource Recovery Exemption or Order issued under the Protection of the Environment Operations (Waste) Regulation 2014, or to any site meeting applicable legislation and regulations, 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.	Prior to construction During construction Operation	Section 4

Ref	Issue	Measure / Requirement	Timing	Document Reference
E166	Waste Management	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.	During construction Operation	Section 4.6

1.1.3 Updated Mitigation Measures

The primary UMMs relevant to the development of this Plan are listed in Table 1-4.

Table 1-4 Updated Mitigation Measures relevant to this Plan

Ref	Issue	Mitigation / Measure	Timing	WMP Reference
WM-1	Waste management	Detailed design would include measures to minimise spoil generation. This would include a focus on optimising the design to minimise spoil volumes and the reuse of material onsite.	Detailed design/ pre-construction	Section 4.8
SC-3	Contamination (waste)	Any hazardous or dangerous waste (e.g. asbestos, chemicals, oils) would be correctly stored and managed onsite, and if necessary, disposed of by a licensed contractor or facility and in accordance with the relevant state occupation health and safety legislative, and regulatory obligations. This includes wastes generated as a result of demolition.	During construction	Section 4
WM-2	Waste management	A waste management plan would be prepared for the proposal, including: • waste targets for the proposal	Detailed design/ pre-construction	This Plan
		• estimated waste generation (volumes and types of waste arisings)		Section 4.2
		• waste mitigation and management measures for the waste types		Section 4

Ref	Issue	Mitigation / Measure	Timing	WMP Reference
		• quantities, and contingencies for any unexpected waste volumes		Contaminated Land and Hazardous Materials Management Plan Section 4.2
		• general protocols and performance objectives for keeping the worksite clean and tidy		Section 4
		• processes for monitoring, documenting and reporting waste types, volumes and how these arisings compare to waste targets (e.g. description of waste streams and estimated volumes, temporary waste storage areas and disposal locations on and offsite (including stockpiles and landfilling) as well as waste disposal and National Environmental Protection Measures (NEPM) criteria for disposal sites		Section 4.3.3
		• requirements for waste segregation (e.g. inert—including virgin excavated material, vegetation, building and demolition waste, concrete and asphalt; solid—such as food waste and litter; industrial/regulated—such as asbestos; hazardous—such as flammable liquids; liquid—such as sewage		Section 4.9
		• requirements for secure temporary storage, collection frequency and disposal/recycling requirements		Section 4.7
		• effluent management for construction staff amenities which includes procedures and reporting/documentation requirements for ensuring waste is tracked, transported and disposed at the appropriately licenced facility according to the type of waste		Section 4.7

Ref	Issue	Mitigation / Measure	Timing	WMP Reference
		• requirements for training, inspections, audits, corrective actions, notification and classification of environmental incidents, record keeping, monitoring and performance objectives for handover on completion of construction		Section 6
		• any other requirements necessary to comply with conditions of approval, subsequent approvals or regulatory requirements.		This Plan
WM-3	Waste management	All waste generated would be classified in accordance with the Waste Classification Guidelines (EPA, 2014a) and disposed of in accordance with the relevant requirements of the Protection of the Environment Operations (Waste) Regulation 2014.		Section 4.6
WM-4	Waste management	Operational waste, including general litter clean up, would be managed in accordance with ARTC's existing operational maintenance requirements and the waste hierarchy principles in the *Waste Avoidance and Resource Recovery Act 2001 (NSW).*		Section 3
AW-1	Waste management	Waste collection and recycling systems of the accommodation camp would be developed to ensure safe handling of waste on site before being transported off site and disposed of at an approved or licenced materials recycling or waste disposal facility.	Detailed design/ pre-construction	Section 4.3
WQ-5	Disposal of wastewater (concrete batching plants)	All wastewater from concrete batching plants would be captured and would either be disposed of to an appropriately licensed facility or treated prior to discharge to surface water bodies. All discharge water would comply with the WQOs and the relevant EPL requirements: • measures to prevent or minimise mud and dirt being tracked onto public roadways by trucks and any equipment leaving the site • requirements for training, inspections, corrective actions, notification and classification of environmental incidents, record keeping, monitoring and performance objectives for handover on completion of construction	Detailed design/ pre-construction	Section 4.10 Construction Soil and Water Management Plan

Ref	Issue	Mitigation / Measure	Timing	WMP Reference
		• any other requirements necessary to comply with conditions of approval subsequent approvals or regulatory requirements • erosion and sediment control plans and Soil and Water Management Plan (SWMP) will be signed off by a Suitably Qualified Person (e.g. Certified Professional in Erosion and Sediment Control (CPESC) in accordance with regulatory requirements.		

1.1.4 Environmental Protection License

The Project will be subject to an Environment Protection Licence (EPL) as a Scheduled Activity for 'railway activities – rail infrastructure construction'. The EPL will be obtained prior to Construction commencement and will include clauses requiring the licensee to minimise the emission of pollution from the premises. The EPL will include conditions specific to waste on the Project. The Project will be constructed to meet the requirements of the EPL with the requirements of the EPL to be incorporated into this Plan once the license is approved and in force.

1.1.5 Relevant Legislation, Guidelines and Specifications

Table 1-5 lists the principal legislation, guidelines and specifications that applies to waste management. The relevant Resource Recovery Orders (RRO) and Resource Recovery Exemptions (RRE) are included Table 4-3.

Table 1-5: Principal legislation and regulation relevant to waste management

Legislation	*Protection of the Environment Operations Act 1997* (POEO Act) Protection of the Environment Operations (Waste) Regulation 2014 *Waste Avoidance and Resource Recovery Act 2001* *National Environmental Protection Measure (Assessment of Site Contamination) 1999 (as amended 2013) (National Environment Protection Council 2013)* *Contaminated Land Management Act 1997* *Biosecurity Act 2015* *National Greenhouse and Energy Reporting Act 2007* *Dangerous Goods (Road and Rail Transport) Act 2008* *Dangerous Goods (Road and Rail Transport) Regulation 2022* *Work Health and Safety Act 2011* *Work Health and Safety Regulation 2017*
Plans and Policies	Australian Dangerous Goods Code (National Transport Commission 2020). State Environmental Planning Policy– (Resilience and Hazards) National Waste Policy 2018 (Australian Government 2018b) National Waste Policy Action Plan 2024 (Australian Government 2024) NSW Circular Economy Policy (NSW Environment Protection Authority 2019b) NSW Government Resource Efficiency Policy (OEH 2019b)
Guidelines and Specifications	Acid Sulfate Soils Assessment Guidelines (Department of Planning 2008) NSW Waste and Resource Recovery Strategy 2014-21 (EPA, 2014) NSW Asbestos Waste Strategy 2019-2021 (NSW EPA, 2019) NSW Circular Economy Policy (NSW EPA 2019b) NSW Government Resource Efficiency Policy (GREP) (OEH 2014) NSW Government Resource Efficiency Policy (OEH 2019b)

	Transport for NSW Environmental Sustainability Strategy (2019-2023) Waste Classification Guidelines: Part 1 Classifying Waste (NSW EPA 2014). Waste Classification Guidelines, Part 1: Classifying Waste, Addendum (NSW EPA, October 2016) Waste Classification Guidelines, Part 4: Acid Sulfate Soils (NSW EPA, November 2014) Transport (Roads and Maritime Services) 2016 Technical Guide - Management of road construction and maintenance wastes Transport for NSW Technical Direction ETD 2015/020 "Legal offsite disposal of Roads and Maritime Services waste" Managing Urban Stormwater: Soils and Construction Volume 1 (Landcom 2004). Inland Rail: Contamination, Spoil and Waste Strategy (*0-0000-900-EEC-00-ST-0002_4*)

1.1.6 Sustainability Requirements

In accordance with NSW CoA E148, the Project will be constructed in accordance with the Inland Rail Sustainability Strategy with the aim of achieving a minimum excellent ISC rating for both 'Design' and 'As-built' phases. Further details regarding sustainability of the Project are provided in the Sustainability Management Plan (*5-0019-220-PMA-00-PL-0044*).

This WMP has been developed to track and monitor waste streams generated during construction of the Project in line with the ISC v1.2 requirements of the Was-1 and Was-2 credits. Was-1 and Was-2 requirements are shown below.

Table 1-6 ISC Rating Requirements for Waste

Credit	Target
Was-1 Waste Management	**Level 1** 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. **Level 2** The requirements for Level 1 are achieved. AND 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.
Was-2 Diversion from Landfill	**Level 1** All of the following targets for landfill diversion have been achieved or bettered: 70 to <80% by volume of spoil AND 25 to <50% by volume of inert and non-hazardous waste AND 25 to <40% by volume of office waste. **Level 2** All of the following targets for landfill diversion have been achieved or bettered: 70 to <80% by volume of spoil AND 25 to <50% by volume of inert and non-hazardous waste AND 25 to <40% by volume of office waste.

1.1.6.1 Environmental Performance Objectives and Targets

Table 1-7 lists the environmental performances objectives and targets related to waste management on the Project.

Table 1-7 Environmental performance objectives and targets related to waste management on the Project

Objectives and Targets	John Holland
Resource use	Diverted from landfill where practical: • 80-100% by volume of spoil; • 50-90% by volume of inert and non-hazardous waste; and • 40-60% by volume of office waste

1.2 Definitions and Abbreviations

Definitions and abbreviations to be applied to the I2S | Waste Management Plan are listed below.

Table 1-8: Definitions and Abbreviations

Term/Abbreviation	Definition
ARTC	Australian Rail Track Corporation
CEMP	Construction Environmental Management Plan
CoA	Conditions of Approval
CSSI	Critical State Significant Infrastructure
DPHI	Department of Planning, Housing and Infrastructure
Environmental Assessment Documentation	• Inland Rail – Illabo to Stockinbingal Environmental Impact Statement (ARTC 2022) • Illabo to Stockinbingal Project Response to Submissions (ARTC 2023) • Response to Submissions – Appendix E - Biodiversity Development Assessment Report version 12 (IRDJV, June 2024) • I2S – Mitigation Measures (Inland Rail, April 2024) • Illabo to Stockinbingal (SSI-9604) Additional and Appropriate Measures for Box Gum Woodland Impacts (Inland Rail, June 2024) Technical and Approvals Consultancy Services: Illabo to Stockinbingal – Box Gum Woodland Gum Flat Rehabilitation Opportunity (IRDJV, June 2024)
EPA	Environment Protection Authority
EPL	Environment Protection Licence
ER	Environmental Representative
Incident	An occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance.
IRPL	Inland Rail Pty Ltd
I2S	Illabo to Stockinbingal
JHG	John Holland Group
LGA	Local Government Area
Material Harm	is harm that: (a) involves actual or potential harm to the health or safety of human beings or to the environment that is not trivial; or results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding $10,000, (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment).
NSW	New South Wales
Non-putrescible	Waste that is not susceptible to rapid decomposition or decay, such as glass, plastic, rubber, plasterboard, ceramics, bricks, concrete, metal, paper, or cardboard, and is a category of general solid waste. Non-putrescible waste is defined further in Schedule 1 of the POEO Act.

Term/Abbreviation	Definition
Putrescible	Putrescible waste refers to organic waste materials that are susceptible to rapid decomposition by microorganisms, leading to putrefaction. Putrescible waste is defined further in Schedule 1 of the POEO Act.
SuMP	Sustainability Management Plan
UMMs	Updated Mitigation Measures
Work	Any physical work for the purpose of the CSSI including construction and low impact work but not including operational maintenance work

2 Introduction

This Waste Management Plan (WMP or Plan) has been prepared for the Inland Rail Illabo to Stockinbingal Project (the Project).

This WMP has been prepared to address the requirements of the Minister's Conditions of Approval (CoA) (SSI-9406), the measures listed in the Environmental Impact Statement (EIS) as amended by the Submissions Report (known as Updated Management Measures (UMMs)) and all applicable legislation, guidelines, standards and specifications.

2.1 Project Scope

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. Comprising 12 sections, a staged approach is being undertaken to deliver Inland Rail.

The Australian Rail Track Corporation (ARTC), with Inland Rail Pty Ltd (IRPL) as its subsidiary for the Inland Rail project, received infrastructure approval for the Illabo to Stockinbingal (I2S) section of Inland Rail in September 2024. The approval for I2S (the Project) was granted by the Minister for Planning and Public Spaces under section 5.19 of the *NSW Environmental Planning and Assessment Act 1979* (EP&A Act).

The Project is located in south-western New South Wales (NSW) in the Riverina region (see Figure 2-1). Illabo is a small town of approximately 132 people (Australian Bureau of Statistics, 2021) located at the southern end of the alignment, 16 kilometres (km) north-east of Junee in the Junee Local Government Area (LGA). Stockinbingal is a town of approximately 347 people (Australian Bureau of Statistics, 2021) is situated at the northern end of the project, approximately 20 km north-west of Cootamundra in the Cootamundra–Gundagai Regional LGA. The major towns surrounding the project are Wagga Wagga, about 50 km to the south, Young to the north-east and Cootamundra to the east.

The Project comprises a new rail corridor that would connect Illabo to Stockinbingal. The alignment branches out from the existing rail line north-east of Illabo and travels north to join the Stockinbingal–Parkes Line west of Stockinbingal. The route will travel primarily through undeveloped land predominantly used for agriculture. The project includes modifications to the tie- in points at Illabo and Stockinbingal to allow for trains to safely enter and exit the Illabo to Stockinbingal section of Inland Rail. The alignment also crosses several local and private roads, watercourses and privately owned properties. Additionally, no major towns are located within the project site between Illabo and Stockinbingal.

The Project will include a total extent of approximately 42.5 km, including 39 km of new, greenfield railway which will incorporate the following key features:

- Connection to other rail lines, including Stockinbingal to Parkes line, Lake Cargelligo line, and Main Southern Railway
- One crossing loop and maintenance siding
- Level crossings and stock crossings
- Bridges over rivers and other watercourses, floodplains, and roads
- Upgrades of around 3.5 km of existing track for the tie-in works to the existing Main South Line at Illabo
- New track to maintain Lake Cargelligo line connection either side of the proposal
- Realignment and road-over rail bridge for a section of the Burley Griffin Way at Stockinbingal
- Realignment of Ironbong Road to allow for safe sight lines at the new active level crossing
- Ancillary infrastructure to support the proposal, inclusive of signalling and communications, drainage, drainage control areas, signage and fencing, and services and utilities

- Construction infrastructure, including ancillary facilities, and a temporary workforce accommodation facility.

The Project will also include upgrades to approximately 3 km of existing track associated with tie-in works and construction of an additional 1.7 km of new track to maintain the existing rail network connections. Road upgrade works will also be undertaken to re-align approximately 1.4 km of Burley Griffin Way to provide a road-over-rail bridge at Stockinbingal. Re-alignment of Ironbong Road will also be completed to allow for safe sight lines. A temporary workforce accommodation camp will also be constructed to house the workforce for the duration of works.

Key features of the Project are shown on Figure 2.

2.2 Statutory Context

The project was declared to be Critical State Significant Infrastructure (CSSI) in 2021, requiring approval under Division 5.2 of the *NSW Environmental Planning and Assessment Act 1979* (EP&A Act). In accordance with the Secretary's Environmental Assessment Requirements (SEARs) (dated 30 April 2021), an EIS was prepared by Australian Rail Track Corporation (ARTC) in August 2022. The EIS was exhibited by the Department of Planning, Housing and Infrastructure (DPHI) for a period of six (6) weeks, commencing on 14 September 2022 and concluding on 26 October 2022.

Following public exhibition of the EIS, ARTC prepared a Submissions Report to respond to submissions and describe Project design refinements.

Approval for the Project was granted on 4 September 2024 by the Minister for Planning (application number SSI-9406) and was subject to a number of CoA.

The project was determined to be a controlled action under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) (EPBC Referral 2018/8233). The Project received controlled action approval from Department of Climate Change, Energy, the Environment and Water (DCCEEW) (EPBC Referral 2018/8233) on 28 October 2024.

2.3 Purpose of the WMP

The purpose of this WMP is to describe how John Holland Group (JHG) will manage potential environmental impacts associated with waste management for the duration of the Project.

This WMP has been prepared to outline and describe how the NSW Minister for Planning's CoA and the Federal Minister for the Environment's CoA will be complied with during the construction of the Project.

The WMP addresses the requirements of the Environmental Assessment Documents, including incorporating the relevant UMMs.

The WMP is consistent with:

- NSW Minister's Infrastructure Approval (SSI 9406) dated 4 September 2024
- Federal Minister for the Environment Approval dated 28 October 2024
- *Illabo to Stockinbingal - Environmental Impact Statement* 2022
- *Illabo to Stockinbingal - Response to Submissions Report*, 2023
- *Environmental Management Plan Guideline – Guideline for Infrastructure Projects* (DPE, April 2020)
- *AS/NZS ISO 14001: Environmental Management Systems (EMS*)
- *AS/NZS ISO 31000:2018 Risk Management Guidelines*

- *Inland Rail Specification – Construction Environmental Management Framework – A2P* (Inland Rail, 2022).
- John Holland (JHG) Environmental Management System (EMS).

2.4 Scope of the WMP

The WMP outlines the approach to waste management in accordance with the UMMs, CoAs and other relevant obligations.

This WMP:

- discusses the general approach to construction waste management.
- outlines the processes and methodologies for waste management, monitoring, and reporting.
- outlines the monitoring and review systems and tools to be used for the purposes of waste management.
- details protocols and procedures for managing, rectifying, and reporting environmental non-compliances and incidents related to waste.
- details organisational roles and responsibilities of relevant Project personnel as they relate to waste management during construction of the Project.

The WMP shall be read in conjunction with the Sustainability Management Plan (SuMP) (*5-0019-220-PMA-00-PL-0044*) and CEMP (*5-0019-220-PMA-00-PL-0037*).

2.5 Environmental Management Systems Overview

The Environmental Management System (EMS) overview is described in the CEMP (*5-0019-220-PMA-00-PL-0037*). The EMS also incorporates the Project-specific CEMP and sub-plans, strategies and procedures. The EMS provides overarching environmental management actions for implementation by Project personnel and contractors and will apply for the duration of construction.

The EMS consists of governance documentation, incorporating environmental management plans, policies, procedures and tools including:

CEMP. Details the processes and procedures to be implemented during the Project to comply with applicable CoA, UMMs, Environment Protection Licence (EPL), legislative obligations and contractual requirements.

CEMP Sub-plans. These documents describe procedures and controls for specific environmental aspects requiring more rigorous management strategies, prepared under NSW CoA C17.

Work Health & Safety (WHS) Management Plan. Details the processes and procedures to be implemented during the Project to comply with applicable work health and safety requirements.

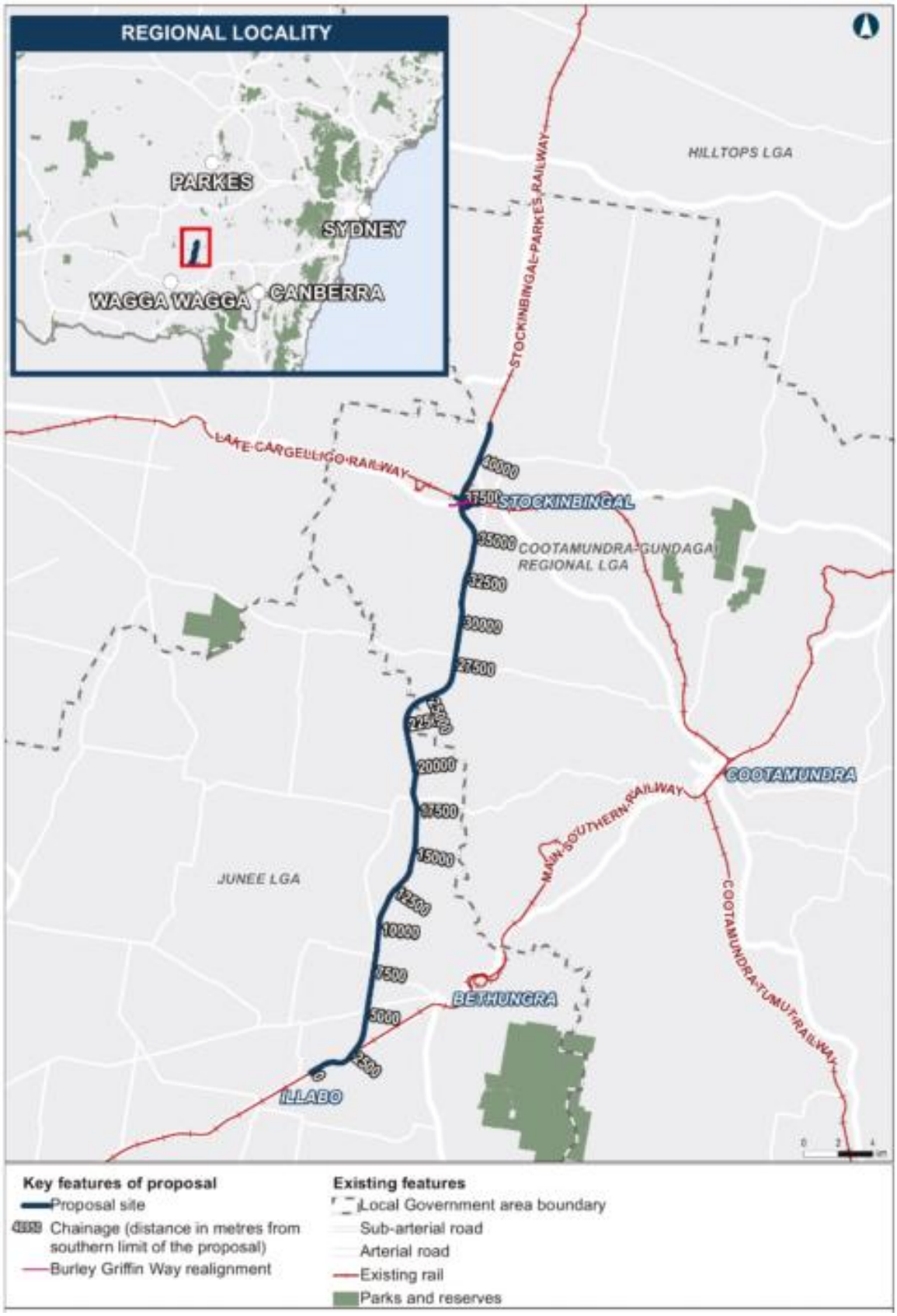

Figure 2-1 Project Locality (Source: Illabo to Stockinbingal - Environmental Impact Statement, 2022

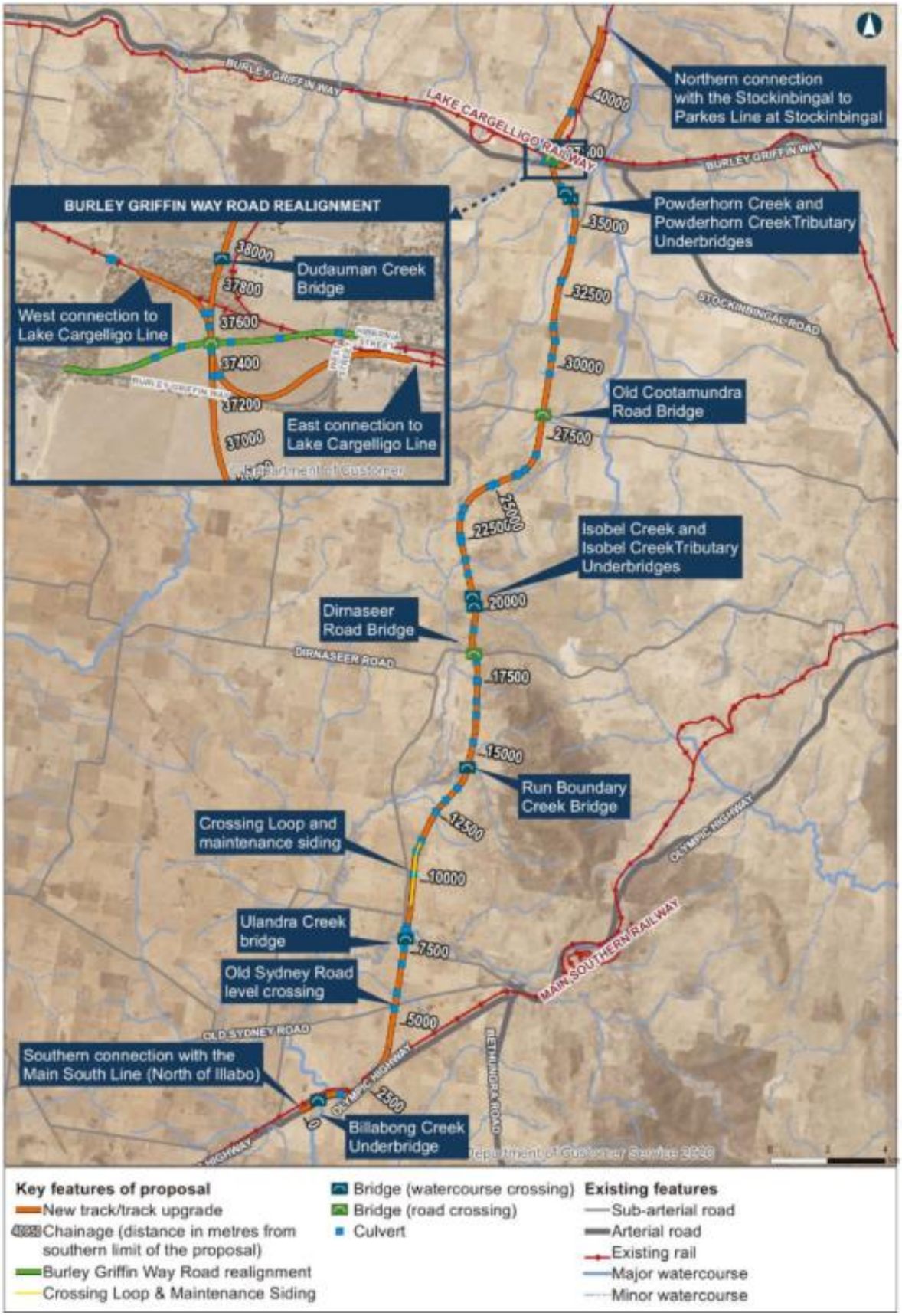

Figure 2-2: Key Project Features (Source: Illabo to Stockinbingal - Environmental Impact Statement, 2022)

3 Waste Management Hierarchy

Figure 3-1-1: Waste management hierarchy approach (NSW EPA)

Waste generated during construction of the Project will be managed in accordance with the *Waste Avoidance and Resource Recovery Act 2001*, and will occur in order of the following preferences:

1. **avoidance** including action to reduce the amount of waste generated by households, industry and all levels of government
2. **resource recovery** including re-use, recycling, reprocessing and energy recovery, consistent with the most efficient use of the recovered resources
3. **disposal** including management of all disposal options in the most environmentally responsible manner.

4 Waste Management

The following section summarises what is known about factors influencing waste impacts and management associated with the Project, within and adjacent to the Project corridor. This section also details the management measures JHG seek to undertake for the duration of the Project to meet the Project requirements and obligations, including NSW CoAs, UMMs.

4.1 Waste Generating Activities

The following activities are likely to generate waste during construction of the Project:

- site preparation, including:
  - clearing and grubbing
  - topsoil stripping
  - site compound establishment
  - haul roads, access roads and laydown construction
  - fencing (temporary and permanent)
- cut-and-fill earthworks (resulting in disposal of surplus spoil)
- drainage structure demolition, replacement or construction
- culvert and bridge demolition, replacement or construction
- welding
- ballasting and tamping
- level crossing upgrading or consolidation
- site compound operation
  - ancillary facilities
  - the Temporary Workforce Accommodation Facility (TWAF)
- plant and equipment.

4.2 Waste Quantities

Waste quantities will be refined during the detailed design phase of the Project. Table 3-1 provides indicative waste quantities provided in the Project EIS and anticipated to be generated throughout Construction. While the Project does not anticipate additional waste quantities or sources to those outlined below, JHG will manage any additional waste volumes through the Unexpected Finds Protocol (for Contamination). Once additional waste types and quantities are determined, this Plan and the table below will be updated in accordance with the update requirements as outlined in section 6.2.

Contingencies for unexpected waste could occur in the form of the following (note the following are examples only based on the existing land use and activities proposed):

- Unexpected waste from excavation works that may be unable to be used due to unexpected or unknown contamination (for example, asbestos containing material within a trench from a redundant utility excavation).
- Excess green waste from overgrown weeds and exotics that may have grown during a wet period (for example, areas of proposed works along the alignment that may or may not have been subject to vegetation removal previously or have been subject to trimming that have grown back).
- Unexpected waste from illegal dumping that is found on site during the project works. This could be contaminated or non-contaminated associated with household waste or agricultural/industrial waste (for example, a group of steel sheets within the works area left within the road corridor).

Exact volumes of contingency waste cannot be estimated, as waste that would occur in this instance would be unexpected. An assumption can be made that some contingency waste may occur on the project, however this is expected to only be in small quantities (i.e. five per cent more than what has

been estimated for known waste). Waste would be managed in accordance with this plan. The project would have capability to manage and dispose of contingency waste in accordance with the mitigation measures outlined in this plan.

Table 4-1: Indicative waste quantities to be generated throughout Construction

Activity	Waste Type	Waste Classification	Estimated Quantity	Anticipated fate of waste
Site clearing and grubbing	Green waste (uncontaminated)	General solid waste (non-putrescible)	Zero offsite—stockpiled on site and reused	Reused
	Green waste (priority weeds)	General solid waste (non-putrescible)	Removed to licensed landfill	Landfill
	Rubbish and debris	General solid waste (non-putrescible)	100 tonnes (t)	Landfill
Rail formation	Rail sleepers and ballast (uncontaminated)	General solid waste (non-putrescible)	3.0 kilometres (km)	Landfill
Site compound establishment	Concrete	General solid waste (non-putrescible)	100 t	Recycle / Landfill
	Metal	General solid waste (non-putrescible)	10t	Recycle
	Wood	General solid waste (non-putrescible)	10t	Recycle
	Glass	General solid waste (non-putrescible)	<1 t	Recycled
	Plastic	General solid waste (non-putrescible)	< 1t	Recycle / Landfill
Fencing (temporary and permanent)	Metal	General solid waste (non-putrescible)	10.5 km	Reused
	Timber	General solid waste (non-putrescible)	21 km	Reused
Cut-and-fill earthworks	Excavated material	General solid waste (non-putrescible) or virgin excavated natural material	Approximately 1.5 million m^3 for reuse onsite where practicable	Reuse onsite where practicable
	Contaminated spoil and ballast	Special waste (asbestos)	<1 t Further investigations required	Landfill

Activity	Waste Type	Waste Classification	Estimated Quantity	Anticipated fate of waste
Demolition and replacement of structures such as culverts, bridges, drainage structures, farming structures	Wood	General solid waste (non-putrescible)	<1t	Reused
	Concrete	General solid waste (non-putrescible)	460m3	Recycle / Landfill
	Metal	General solid waste (non-putrescible)	100m3	Recycle
	Potential hazardous building materials (including asbestos, lead paint)	Special waste General solid waste Hazardous waste	Further investigations required	Appropriately Licensed Landfill
Welding	Metal	General solid waste (non-putrescible)	Rail off cut kept, other minimal (<1 t)	Recycle
Site compound (ancillary facility) operations	Food Waste	General solid waste (non-putrescible)	<1t	Landfill
	Water	Liquid Waste	800 megalitres (ML)	Wastewater treatment
	Paper	General solid waste (non-putrescible)	1.5t	Recycled
	Cardboard	General solid waste (non-putrescible)	2.5t	Recycled
	Plastic	General solid waste (non-putrescible)	<1t	Recycle / Landfill
	Glass	General solid waste (non-putrescible)	<1t	Recycle
	Metal	General solid waste (non-putrescible)	30t	Recycle
	Electricals	General solid waste (non-putrescible)	2t	Recycle / Landfill
	Vehicle/ plant Equipment maintenance	General solid waste (non-putrescible) Drained oil filters: • rags and oily rags (only if they contain non-volatile petroleum	<1t	Recycle / Landfill

Activity	Waste Type	Waste Classification	Estimated Quantity	Anticipated fate of waste
		hydrocarbons and no free liquids). Hazardous waste: • containers • holding oil • grease lubricants (if residues have not been removed by washing) • batteries		
Site compound (Temporary Workforce Accommodation Facility) operations	Wastewater	Liquid waste	To be provided in the TWAFMP	Wastewater treatment
	Wastepaper	General solid waste (non-putrescible)		Recycle
	Food Waste	General solid waste (non-putrescible)		Landfill
	Paper	General solid waste (non-putrescible)		Recycle
	Cardboard	General solid waste (non-putrescible)		Recycle
	Plastic	General solid waste (non-putrescible)		Recycle / Landfill

4.3 Waste Disposal

All waste generated by the project will be classified in accordance with the EPA waste classification guidelines. Wastes that are unable to be reused or recycled will be disposed of offsite to an appropriately licenced waste management facility following classification. Locations of waste management/disposal facilities are included in Section 4.3.1. Details of waste types, volumes and destinations are to be recorded in the Waste Register (refer Appendix C).

Waste (and spoil) disposal is to be in accordance with the Protection of the Environment Operations Act 1997 and the Waste Avoidance and Resource Recovery Act 2001. There will be two types of waste disposal, being:

- Disposal to an EPA licensed facility, or
- Disposal to a receiving site under Section 143(3A) of the POEO Act.

Prior to transporting wastes to a receiving site where an EPA licence is not required (such as a beneficial reuse site), a completed and signed notice under section 143(3A) of the POEO Act (“s.143 Notice”) along with accompanying documentation confirming that the proposed disposal site holds appropriate licences / approvals to receive the waste will need to be reviewed by the Environment Manager (or delegate).

4.3.1 Waste Disposal Facilities

Table 4-2 lists some of the waste management facilities located in proximity to the Project, and that will be considered for the disposal of waste throughout construction.

Table 4-2: Waste facilities local to the Project and waste types accepted

Facility Name	Waste Types Accepted
Cootamundra Waste Depot (EPL No. 5985)	• general waste • green waste • sorted recyclables • concrete and rubble • metals • clean soil • industrial waste • asbestos (EPA compliant) other wastes, including: • e-waste • stumps and logs • tyres
Junee Landfill Facility (EPL No. 6005)	• general waste • green waste • sorted recyclables • fill • demolition/trade waste (including asbestos) • tyres other wastes (e.g. motor oil, e-waste, paint, gas bottles, whitegoods).

4.3.2 Waste 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. The EPA has issued general exemptions for a range of commonly recovered, high volume and well characterised waste materials that allow their use as at offsite facilities or for use within the Project footprint.

The general Resource Recovery Exemptions and Orders (RRE / RRO) that may be applicable to the Project are defined in Table 4-3. These are general gazette exemptions that do not require approval. A specific exemption may be granted where an application is made to the EPA. Where the use of external materials on the Project footprint is proposed or Project won materials are proposed for re-use offsite, this process will follow the requirements of Condition E164 and E165 to ensure compliance with the POEO Regulations.

A link to the current in force NSW EPA RRE/RRO list that includes the specific exemptions listed in Table 4-3 is included below for further reference of required actions to be undertaken by JH in the undertaking of an RRE/ROO.

Current orders and exemptions | EPA

Where waste is taken offsite under a Section 143, JH would need to generate documentation confirming the waste classification (e.g. ENM sampling results in accordance with the relevant RRE, VENM certificate, etc).

The requirements of any RRE/RRO will be applied for both material imported or exported under an applicable RRE/RRO. All sampling and record keeping requirements under the applicable RRE will be adhered to. Where an opportunity is identified during construction to undertake re-use of materials set out in Table 4-3, JH will ensure that the requirements of the specific RRO are undertaken and maintained for record. The general requirements that should be captured and managed by JH are specific to each RRE/RRO but will include:

- Evidence that the material meets the description of the exemption/order
- Sampling regime undertaken in accordance with the exemption/order
- Testing and analysis undertaken in accordance with the exemption/order

- Notification to the EPA and the receiver (for exportation of material)
- Notification from the supplier (for importation of materials)
- Record keeping of the volume, type and location of materials provided for supply.

Table 4-3: EPA Resource Recovery Exemptions and Orders and associated conditions

Exemption/Order	General Conditions
The recovered railway ballast order 2014	• This order applies to recovered railway ballast. In this order, recovered railway ballast means free draining coarse natural aggregate of high strength and a minimum particle size of 9.5 mm.
Effluent Exemption 2014 **Effluent Order 2014**	• The effluent can only be applied to land for the purposes of irrigation or as a soil amendment material. • The consumer must apply the effluent within a reasonable period of time.
The excavated natural material exemption 2014 **The excavated natural material order 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. • ENM handling, processing, and testing requirements are outlined in detail in the exemption.
The excavated public road material exemption 2014 **The excavated public road material order 2014**	• The excavated public road material can only be stored within the road corridor at the site where it is to be applied to land. • The 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 land application of excavated public road material on any land outside the road corridor. • The excavated public road material cannot be applied on private land. • The consumer must land apply the relevant waste within a reasonable period of time.
The mulch exemption 2016 **The mulch order 2016**	• 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.
The recovered aggregate exemption 2014 **The recovered aggregate order 2014**	• The chemical concentration or other attribute of the recovered aggregate listed in the Recovered aggregate Exemption must be met. • The recovered aggregate can only be applied to land for road making activities, building, landscaping, and construction works. This approval does not apply to any of the following applications: o Construction of dams or related water storage infrastructure, o Mine site rehabilitation, o Quarry rehabilitation, o Sand dredge pond rehabilitation, o Back-filling of quarry voids, o Raising or reshaping of land used for agricultural purposes, and o 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, and a development consent for the development has been granted under the relevant Environmental Planning Instrument (EPI), or it is to provide access (temporary or permanent) to a development approved by a Council, or the works undertaken are either exempt or complying development.

Exemption/Order	General Conditions
The blast furnace slag exemption 2014 **The blast furnace slag order 2014**	• Blast furnace slag or blended slag can only be applied to land in cementitious mixes such as concrete or in non-cementitious mixes such as an engineering fill in earthworks or roadmaking activities.
The reclaimed asphalt pavement exemption 2014 **The reclaimed asphalt pavement order 2014**	• Reclaimed asphalt can only be applied to land for road related activities including road construction or road maintenance
The treated drilling mud exemption 2014 **The treated drilling mud order 2014**	• The material must meet all chemical and other material requirements for treated drilling mud • The treated drilling mud can only be applied to land as engineering fill or for use in earthworks. • The consumer must apply the effluent within a reasonable period of time.
ARTC Excavated Materials Exemption and Order	• 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. • ENM handling, processing, and testing requirements are outlined in detail in the exemption.

4.3.3 Tracking of Waste Quantities

The Project will track the quantities of materials and resources used, quantities of waste to be beneficially reused, quantities of waste to be recycled and quantities of waste unable to be recycled or beneficially reused. This will assist in the management of resource consumption and identifying areas for improvement. An example Waste Tracking Register has been provided in Appendix C.

Details to be tracked are obtained directly from the waste subcontractor for waste stream quantities and disposal location via dockets. These quantities will be reported on periodically in the monthly report. Details of waste to be tracked will be in accordance with any / all RRE/RRO requirements and the requirements of the POEO waste regulation 2014. JH will

- ensure that waste is correctly characterised
- ensure that the facility the waste is being transported to can legally accept it

If JH do not use an authorised agent to manage or track waste, the responsibility for waste tracking remains with JH. With regard to waste tracking :

- **If JH use the online waste tracking system,** the system automatically retains all records of transactions completed online.
- **If JH do not use the online waste tracking system**, JH will keep copies of printed Transport Certificates for at least 4 years.
- **If JH uses an authorised agent**, JH will keep a copy of the printed agreement with the agent for at least 4 years.

In addition, all data collated relating to waste generation and disposal will be provided in the Project's ISCA submission to achieve a minimum 'Excellent' 'Design' and 'As built' rating using the ISCA infrastructure rating tool.

Any contaminated material to be disposed of as waste will also be handled in accordance with the requirements of the CLHMMP.

In addition to the general volume and disposal tracking requirements described above, this Plan outlines the mandatory requirements stipulated by the POEO Act and Regulations (waste) for tracking

waste that leaves the site. The following wastes outlined in Table 4-1 below (if transported offsite) will be tracked in accordance with the waste regulations:

Table 4-1 Trackable waste (POEO Regulation 2014)

Waste description	Waste code
Table One Waste descriptions and codes for waste that must be tracked when transported within NSW or interstate.	
Acidic solutions or acids in solid form	B100
Antimony; antimony compounds	D170
Arsenic; arsenic compounds	D130
Barium compounds (excluding barium sulphate)	D290
Basic solutions or bases in solid form	C100
Beryllium; beryllium compounds	D160
Boron compounds	D310
Cadmium; cadmium compounds	D150
Ceramic-based fibres with physico-chemical characteristics similar to those of asbestos	N230
Chlorates	D350
Chromium compounds (hexavalent and trivalent)	D140
Clinical and related wastes	R100
Cobalt compounds	D200
Containers and drums that are contaminated with residues of substances referred to in this list	N100
Copper compounds	D190
Cyanides (inorganic)	A130
Cyanides (organic)	M210
Encapsulated, chemically-fixed, solidified or polymerised wastes that are referred to in this Part	N160
Ethers	G100
Filter cake contaminated with residues of substances that are referred to in this Part	N190
Fire debris and fire wash waters	N140
Fly ash	N150
Halogenated organic solvents	G150
Highly odorous organic chemicals (including mercaptans and acrylates)	M260
Inorganic fluorine compounds excluding calcium fluoride	D110
Inorganic sulfides	D330
Isocyanate compounds	M220
Lead; lead compounds	D220
Mercury; mercury compounds	D120
Metal carbonyls	D100
Nickel compounds	D210
Non-toxic salts	D300
Organic phosphorous compounds	H110
Organic solvents excluding halogenated solvents	G110
Organo halogen compounds—other than substances referred to in this Table or Table 2 Oxidising agents	M160
Perchlorates	D340
Phenols, phenol compounds including chlorophenols	M150
Phosphorus compounds excluding mineral phosphates	D360

Waste description	Waste code
Polychlorinated dibenzo-furan (any congener)	M170
Polychlorinated dibenzo-p-dioxin (any congener) Reactive chemicals	M180
Residues from industrial waste treatment/disposal operations Reducing agents	N205
Selenium; selenium compounds	D240
Soils contaminated with a substance or waste referred to in this Table	N120
Surface active agents (surfactants), containing principally organic constituents and which may contain metals and inorganic materials	M250
Tellurium; tellurium compounds	D250
Thallium; thallium compounds	D180
Triethylamine catalysts for setting foundry sands	M230
Vanadium compounds	D270
Waste chemical substances arising from research and development or teaching activities, including those which are not identified and/or are new and whose effects on human health and/or the environment are not known	T100
Waste containing peroxides other than hydrogen peroxide	E100
Waste from heat treatment and tempering operations containing cyanides	A110
Waste from manufacture, formulation and use of wood-preserving chemicals	H170
Waste from the production, formulation and use of biocides and phytopharmaceuticals	H100
Waste from the production, formulation and use of inks, dyes, pigments, paints, lacquers and varnish	F100
Waste from the production, formulation and use of organic solvents	G160
Waste from the production, formulation and use of photographic chemicals and processing materials	T120
Waste from the production, formulation and use of resins, latex, plasticisers, glues and adhesives	F110
Waste from the production and preparation of pharmaceutical products	R140
Waste mineral oils unfit for their original intended use	J100
Waste oil/water, hydrocarbons/water mixtures or emulsions	J120
Waste pharmaceuticals, drugs and medicines	R120
Waste resulting from surface treatment of metals and plastics	A100
Waste tarry residues arising from refining, distillation, and any pyrolytic treatment	J160
Waste substances and articles containing or contaminated with polychlorinated biphenyls, polychlorinated napthalenes, polychlorinated terphenyls and/or polybrominated biphenyls	M100
Waste of an explosive nature not subject to other legislation	T200
Zinc compounds	D230
Table 2: Waste descriptions and codes for waste that must be tracked when transported interstate only	
Animal effluent and residues (abattoir effluent, poultry and fish processing wastes)	K100
Asbestos	N220
Containers and drums that are contaminated with residues of waste referred to in this Table	N100
Grease trap waste	K110
Soils contaminated with a substance or waste referred to in this Table	N120
Tannery wastes including leather dust, ash, sludges and flours	K140
Tyres	T140
Wool scouring wastes	K190

Section 4.6 of this Plan will be followed to classify the type of waste correctly. Where a type of waste from the table above is identified and requires disposal offsite, the Project will ensure:

- The transporter of the waste has the appropriate license to cart the waste offsite.
- The waste transported is tracked on the EPA's Integrated Waste Tracking Solution (IWTS)
- The receiving facility is appropriately licensed to receive, store and process the waste.

4.4 Stockpile Material Management

All stockpiled material will be clearly delineated to prevent mixing and cross contamination. All stockpiles of site won material including but not limited to overburden, rock, fill and, topsoil or any other long term stockpiles (stockpiles left for more than 20 days) will be clearly signposted with a stockpile number, date established, material characterisation, origin and quantity.

Potentially contaminated fill or stockpiled material (based on observation) will be stockpiled separately for classification (Appendix A) and offsite disposal to a licensed waste facility (if required).

Waste classified as 'special waste' or 'hazardous waste' will be segregated (or excavated and placed as separate stockpiles) at demarcated and contained locations. These areas would be appropriately bunded and stockpiles would be covered with anchored geotextile or impermeable plastic sheeting Should hazardous waste have the potential to produce contaminated leachate, the material will be stored in an area with an appropriate bunding. Waste fuel, oils and other hazardous chemicals will be stored in well ventilated, bunded areas prior to removal by licenced waste contractors.

Spoil that is not potentially contaminated will be beneficially reused as part of the project before alternative spoil disposal options are considered. Any excess spoil will be managed using the following order of priorities:

- Review alignment and profile refinements during detailed design
- Assess opportunities to reuse excess spoil in works within the construction footprint or in adjacent land
- Beneficial reuse within the construction footprint for rehabilitation of ancillary facilities
- Disposal at an approved materials recycling or licensed waste disposal facility.

If contaminated waste is identified, the process for classification and management of potential waste streams and spoil management are further discussed in the Construction Waste Management Plan (CWMP) and summarised below:

1. Classification of waste will be undertaken in accordance with the Waste Classification Guidelines Part 1: Classifying Waste (EPA, 2014) with appropriate records and disposal dockets retained for audit purposes in accordance with NSW CoA E166. The waste classification guidelines are provided in Appendix A.
2. Waste sampling and classification will be completed by a suitably qualified professional. Each Waste Classification Report will report on the sampling density and methods used to determine the waste classification in accordance with the guidelines and standards relevant to the material being classified
3. If contamination, asbestos or other hazardous materials are identified, they will be disposed off-site to an appropriately licensed facility or managed in accordance with a RAP.

4.5 Temporary Workforce Accommodation Facility

Waste generated from the operation of the Temporary Workforce Accommodation Facility (TWAF) is expected to include:

- Wastewater
- Wastepaper
- Food waste
- Paper
- Cardboard
- Plastic

Waste quantities expected to be generated from the operation of the TWAF will be detailed in the TWAF Management Plan. Sewage and waste water generated by the TWAF will either be stored in onsite tanks, trucked offsite to licensed waste facilities or treated by an onsite wastewater/sewage treatment plan subject to additional approvals.

This will be confirmed in the Temporary Workforce Accommodation Facility Management Plan in accordance with CoA A18.

4.6 Waste Classification

Waste classification on the Project will be conducted in accordance with EPA Waste Classification Guidelines 2014 and NSW CoA E166. The waste classification guidelines as described in the EPA Waste Classification Guidelines 2014 are provided in Appendix A.

Where waste cannot be avoided, reused, or recycled it will be classified and disposal methods would be selected based on the classification of the waste material in accordance with the Waste Classification Guidelines: Part 1 Classifying Waste (NSW EPA 2014). This document 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. That process is described below:

Step 1: Is it 'special waste'?

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

Note: Asbestos and clinical wastes must be managed in accordance with the requirements of Clauses 42 and 43 of the Protection of the Environment Operations (Waste) Regulation 2005. Relevant WorkCover requirements will also be complied with and detailed further in Project WH&S documentation.

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

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

Liquid wastes are sub-classified into:

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

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

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

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

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

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

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

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

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

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

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

The Waste Classification Guidelines provide direction on the classification of waste, specifying requirements for management, transportation, and disposal of each waste category. All wastes would be managed in accordance with the waste provisions contained within the POEO Act and, where reused offsite, would comply with relevant NSW EPA resource recovery exemptions and requirements.

Once a classification has been established under the guidelines, waste classification reports, waste tracking records and disposal dockets will be retained for audit purposes in accordance with CoA 166.

4.7 Waste Handling and Storage

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

- Spoil, topsoil, and mulch are to be stockpiled onsite in allocated areas (including ancillary facilities detailed in the CEMP), where appropriate, and mitigation measures for dust control and surface water management will be implemented as per the Air Quality Management Sub-plan and the Soil and Water Management Sub-plan.
- Liquid wastes are to be stored in appropriate containers in bunded areas until transported offsite. Bunded areas will have the capacity to hold 110% of the liquid waste volume for bulk storage or 120 per cent of the volume of the largest container for smaller packaged storage.
- Hazardous waste will be managed by appropriately qualified and licensed contractors, in accordance with the requirements of the *Environmentally Hazardous Chemicals Act 1985* and the EPA waste disposal guidelines.

All other recyclable or non-recyclable wastes are to be stored in appropriate covered receptacles (e.g. bins or skips) in appropriate locations onsite and contractors commissioned to regularly remove/empty the bins to approved disposal or recycling facilities as required. Collection frequency will be determined upon waste type and construction requirements, such that respective bins are not overfull, and will be managed by the waste management sub-contractor on behalf of JHG.

4.8 Waste Minimisation in Design

It is widely recognised that the earlier in a Project life cycle that material use reduction and waste minimisation is addressed, the more effective it will be.

The following principles may be applied in designing to minimise waste:

- Design for reuse and recovery
- Design for off-site construction
- Design for materials optimisation
- Design for waste efficient procurement
- Design for deconstruction and flexibility.

Examples of design initiatives that will contribute towards waste minimization are but not limited to:

- Modular design of the associated rail infrastructure and off-site construction.
- Reuse of excavated spoil.
- Reusing existing structures, concrete sleepers, rail assets from other projects where possible/ practicable

4.9 Waste Stream Management

Waste management areas will be established during construction, at which waste (including recyclables) will be stored. Most construction waste unable to be reused will be stored in co-mingled bins for processing offsite to maximise resource recovery. Office waste will be segregated to maximise resource recovery. Stockpiles and bins will be appropriately labelled, managed and monitored.

General waste and recyclables will be disposed of in closed receptacles and collected at regular frequencies. Worksites will be free of litter and good standards of housekeeping will be maintained throughout construction. Regular inspections by both the Environment and Sustainability Team and the Health and Safety Team will be undertaken to ensure a high standard is maintained.

4.10 Wastewater

All wastewater from concrete batching plants would be captured and would either be disposed of to an appropriately licensed facility or treated prior to discharge to surface water bodies. All discharge water would comply with the WQOs and the relevant EPL requirements. The requirements of REMM WQ-5 relating to wastewater capture and erosion and sediment control are included in the Construction Soil and Water Management Plan.

5 Compliance Management

5.1 Roles and Responsibilities

Roles and responsibilities for ARTC /Inland Rail, regulators and other stakeholders are provided below.

Table 5-1: Roles and responsibilities relating to this Plan.

Role	Responsibility
Foreperson	• Communicate with all personnel and subcontractors regarding compliance with this Plan and site-specific environmental issues. • Ensure all site workers attend an environmental induction prior to the commencement of works. • Coordinate the implementation and maintenance of pollution control measures. • Stop activities where there is an actual or immediate risk of harm to the environment and advise the Construction Manager and Environment and Sustainability Manager.
Commercial Manager	• Ensure contract provisions are made for procurement that includes waste management in accordance with the requirements of this Plan.
Environment & Sustainability Manager (or delegate)	• Maintain waste and spoil tracking registers and associated documentation as required by this Plan. • Overall responsibility for the implementation of environmental and sustainability matters on the Project. • Report to Project Director and other senior managers on the performance and implementation of this Plan. • Develop and facilitate induction, toolbox talks and other training programs regarding environmental requirements for all site personnel. • Notify Inland Rail and relevant authorities in the event of an environmental incident or environmental non-conformance and manage corrective action implementation and close-out of these. • Stop activities where there is an actual or immediate risk of harm to the environment, or to prevent environmental non-conformities, and advise the Project Director, Construction Manager, and Superintendent. • Provide the ER with documentation requested in order for the ER to perform their functions (including preparation of the ER monthly report as well as the complaints register and any compliance assessment).
Suitable Qualified Person (SQP)	Classifying waste in accordance with the Waste Classification Guidelines.
Wider Project team (including subcontractors)	• Comply with the relevant requirements of this Plan, or other environmental management guidance as instructed by a member of the Project's management. • Participate in the mandatory Project/site induction program. • Report any environmental incidents to the Foreperson immediately or as soon as practicable if reasonable steps can be adopted to control the incident. • Undertake remedial action as required to ensure environmental controls are maintained in good working order.

Role	Responsibility
	• Stop activities where there is an actual or immediate risk of harm to the environment and advise the Construction Manager, Area Manager, Superintendent or the Project Environment and Sustainability Manager.
Environmental Representative (ER)	• Consider and recommend to the Proponent any improvements that may be made to work practices to avoid or minimise adverse impact to the environment and to the community. • Review this Plan to ensure implementation is being carried out in accordance with the document and the terms of this approval. • Conduct fortnightly inspections of the site (or frequency as determined based on risk level) • Perform responsibilities under CoA
Inland Rail I2S Environmental Officer / Advisor	• Monitor, evaluate and advise on compliance with DPHI environmental requirements. • Review all environmental management plans for the Project or related activities that are not required to be approved by DPHI in consultation with the Inland Rail Principal Environment Advisor.
Contaminated Lands Site Auditor	• Any contaminated waste to be removed from site under an Unexpected Finds process or Remedial Action Plan will be under the review of the Contaminated Lands Site Auditor. • All other Roles and Responsibilities relevant to the Contaminated Lands Site Auditor are included in the Contaminated Land and Hazardous Material Management Plan

Roles and responsibilities are discussed further in the CEMP.

5.2 Training

To ensure that this Plan is implemented effectively, all site personnel (including sub-contractors) will undergo site induction training relating to contaminated land management issues prior to construction commencing. The induction training will address elements related to contaminated land management, including:

- Existence and requirements of this WMP, the plans and procedures prepared under this Plan relevant to the Project
- Relevant legislation, regulations and EPL requirements (where applicable)
- Environmental and occupational health and safety and workplace health and safety risks associated with contaminated materials
- Personal Protective Equipment (PPE) requirements
- Incident response, management and reporting
- Roles and responsibilities for contaminated land management
- Location of identified potential contaminated land sites
- Contamination management and protection measures
- Signs of contaminated soil
- Visual asbestos identification protocols
- Procedure to follow in the event of unexpected, contaminated land findings during construction works.

Targeted training in the form of toolbox talks or specific training will also be provided to personnel with a key role in the management of contamination and hazardous materials.

Daily pre-start meetings conducted by the Superintendent / Site Supervisor will inform the site workforce of any relevant environmental issues that could potentially be impacted by, or impact on, the day's activities.

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

5.3 Monitoring and Inspections

Regular monitoring and inspections will be undertaken in the lead up to, during and following construction. Monitoring and inspections form a fundamental aspect of ongoing Project risk analysis and will include, but not be limited to those outlined in Table 5-2.

Table 5-2 Monitoring, Inspection Requirements

Type	Frequency	Standards	Location	Reporting	Responsibility
Internal Inspections					
Shutdown Environmental inspections	Prior to site shut down (e.g. Christmas period)	Project EMS	Site-wide	Inspection Checklist	Project Environment Team
Sustainability inspections	Weekly	Sustainability Checklist	Site-wide	Closed out Sustainability Checklist	Project Environment and Sustainability Team
Pre and post clearing inspections	Prior to and following clearing activities	Vegetation Clearing Permit Post Clearing Report	Site-wide	Completed Vegetation Clearing Permits and Post Clearing Reports	Project Environment Team supported by an Ecologist as required
Waste Tracking register	As specified in this Plan	As specified in this Plan	Site-wide	Project Environment Manager (or delegate) Construction Manager	Waste Tracking register
Weekly Environmental Inspection	Weekly	Weekly inspections which, as part of the weekly environmental inspection further outlined in the CEMP, will include inspection of the environmental controls and mitigation measures outlined in Section 6 of this Plan..	Site-wide	Weekly environmental inspection checklist	Project Environment and Sustainability Manager (or delegate)
Monitoring and Reporting					
Visual monitoring	Daily	Project EMS	Remediation areas	Site validation reports	Foreperson
		Project EMS	Site-wide	Foreperson's Logbook / Site Diary	Foreperson

Type	Frequency	Standards	Location	Reporting	Responsibility
External Inspections					
EPA and other agency inspections	Determined by EPA and other agencies	Determined by EPA and other agencies	Site-wide	Determined by EPA and other agencies	EPA and other agencies as applicable
ER Site Inspection	Fortnightly or as determined based on risk level	Environmental Representative Protocol	Site-wide	ER Inspection Report ER Monthly Report	ER
Inland Rail Inspections	Fortnightly or as determined based on risk level	N/A	Site-wide	Environmental Inspection checklist / notes	Inland Rail
Monthly Waste Report	Monthly waste report. The report must include: Reused, recycled, landfilled or stockpiled wastes generated as part of the contract	Within 10 days from the beginning of each month	Site-wide	Monthly waste report	Project Environment Manager (or delegate)

All environmental monitoring equipment (if required) will be maintained and calibrated according to the manufacturer's specifications, and appropriate records will be kept.

5.4 Hold Points

Hold Points and Witness Points relevant to this Plan are outlined in Table 5-.

Table 5-3 Hold Point and Witness Points relevant to this Plan

Type	Description	Releasing Authority	Record
Hold Point	Submission of AMS for activities relating to contamination removal / remediation	Inland Rail Principal Environment Advisor (or Delegate)	Submission of evidence to IRPL 5 days before commencing works
Hold Point	Submission of Remedial Action Plan for contaminated land (where the Remedial Action Plan is to be prepared by the Contractor)	Inland Rail Principal Environment Advisor (or Delegate)	Submission of evidence to IRPL 5 days before commencing works
Hold Point	Pre-construction land condition assessment report for each area intended used for the construction site facilities, and evidence of any necessary statutory and environmental approvals.	Inland Rail Principal Environment Advisor (or Delegate)	Submission of evidence to IRPL 5 days before commencing works

5.5 Non-Compliance and Non-Conformance

Non-compliances and non-conformances, including those related to waste management, are detailed in Section 9.3 of the CEMP. This includes the definitions of non-compliance and non-conformance, corrective and preventative actions, communication of corrective and preventative actions to staff and non-conformance close-out.

5.6 Incident Response

Incident management, including waste management, are detailed in Section 8 of the CEMP. This includes incident classification, notification and reporting including to external authorities, incident investigation and closeout.

5.7 Auditing

Audits (both internal and external) will be undertaken to assess the effectiveness of environmental controls, compliance with this sub plan, CoA and other relevant approvals, licenses and guidelines. Audit requirements are detailed in Section 9.4 of the CEMP.

A targeted 6 monthly audit will be undertaken as part of this Plan to confirm the final destination for all waste streams being transported and disposed offsite.

5.8 Reporting

Reporting requirements relevant to the management of waste and associated activities are identified in the table below.

Accurate records will be maintained substantiating all construction activities associated with the Project or relevant to the conditions of approval, including measures taken to implement this CWP. Records will be made available to DPHI upon request, within the timeframe nominated in the request.

Table 5-4 Reporting Requirements specific to Waste

Report	Requirement	Timing	Responsibility	Recipient
Waste Classification	NSW EPA (2014) Waste Classification Guidelines	As required	Project Environment and Sustainability Manager (or delegate) Contaminated Land Consultant	Area Managers Foreperson
Monthly Waste Report	Monthly waste report. The report must include: Reused, recycled, landfilled or stockpiled wastes generated as part of the contract	Within 10 days from the beginning of each month	Project Environment Manager (or delegate)	Environmental Representative
Unexpected Contamination Finds	Reporting any unexpected contamination finds in accordance with the	As required	Area Managers Foreperson	Project Environment and

Report	Requirement	Timing	Responsibility	Recipient
	Unexpected and Incidental Finds Protocol. If required, report to NSW EPA in accordance with the duty to notify / report provisions under the CLM Act.			Sustainability Manager (or delegate) Contaminated Land Consultant Inland Rail
Incident reporting	Environmental incident classification, notification, and reporting in accordance with the JHG Environmental Incident Procedure.	Following occurrence of an incident in accordance with the CEMP	Project Environment and Sustainability Manager (or delegate)	Inland Rail Relevant Regulatory agency (as applicable)
	Environmental incident notification to the Planning Secretary that causes or threatens to cause material harm as defined within the CoA.	As soon as possible and no later than 24 hours after becoming aware in accordance with the CEMP.	Project Environment and Sustainability Manager (or delegate)	Inland Rail DPHI
Complaint Reporting	Complaint management and reporting in accordance with the Community Communication Strategy (CCS) and Section 5.9 of this Plan.	As specified in the CEMP and CCS	Project Environment and Sustainability Manager (or delegate)	Inland Rail

5.9 Complaints Management

Section 7.6 of the CEMP details communication and complaints management processes and procedures. The Community Consultation Strategy (CCS) identifies key stakeholder groups that will be consulted and engaged with during the Project and outlines the communication tools that will be used to consult and engage with these groups. During construction, any comments, feedback or complaints relating to biodiversity management issues will be addressed through the Complaints Management System. The Complaints Management System includes a complaints register within the stakeholder database.

6 Review and Improvement

6.1 Continuous Improvement

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

The continuous improvement process will be designed to:

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

The Project Environment and Sustainability Manager (or delegate) is responsible for ensuring stage-specific environmental risks are identified and included in the Project risk register and appropriate mitigation measures implemented throughout the construction, as part of the continuous improvement process. The process for ongoing risk identification and management during construction is outlined in the CEMP.

6.2 Plan Amendments and Version Control

The processes described in Section 3.10 of the CEMP may result in the need to update or revise this Plan. Only the Environment Manager, or delegate, has the authority to change any of the environmental management documentation

7 Appendices

Appendix A – Waste Classification Guidelines – Part 1: Classification of waste

Step 1: Is the waste special waste?

Establish if the waste should be classified as special waste. Special wastes are:

- clinical (and related) waste,
- asbestos, and
- waste tyres.

Further definitions are provided in the guidelines.

Note: Asbestos and clinical wastes must be managed in accordance with the requirements of Clauses 42 and 43 of the Protection of the Environment Operations (Waste) Regulation 2005. Relevant Work Cover requirements will also be complied with and detailed further in Project WH&S documentation.

Step 2: Is the waste liquid waste?

If you have established that the waste is not special waste, decide whether it is 'liquid waste'.

Liquid waste means any waste (other than special waste) that:

- has an angle of repose of less than 5 degrees 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
- is classified as liquid waste under an EPA gazettal notice.

If the waste meets the criteria outlined above, it is classified as liquid waste, and no further assessment for classification is required.

Note: The waste generator may choose to separate the waste into its liquid and solid fractions so that the solid fraction can be further classified in accordance with these Guidelines.

Step 3: Is the waste pre-classified?

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

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

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

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

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

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

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

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

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

The Waste Classification Guidelines provide direction on the classification of waste, specifying requirements for management, transportation, and disposal of each waste category. All wastes would be managed in accordance with the waste provisions contained within the POEO Act and, where reused offsite, would comply with relevant NSW EPA resource recovery exemptions and requirements.

Once a classification has been established under the guidelines, will be managed accordingly.

Appendix B – JHG Spoil Movement Permit

Permit Number:			
Permit Start Date:	Click or tap to enter a date.	**Permit End Date:**	Click or tap to enter a date.

Section 1: Permit Application Details			
Workplace:			
Company:			
Permit Applicant (Name):	[Person Applying For This Work Permit. I.E. Engineer]		
Permit Holder (Name):	[Person Who Will By Accepting This Work Permit And Taking Responsibility And Accountability For The Work, I.E., Supervisor]		
Permit Controller (Name):	[Person Who Is Assessing And Approving This Permit]		
Work Location:			
Work Start Date:	Click or tap to enter a date.	**Work End Date:**	Click or tap to enter a date.
AMS Reference:			
SEP Reference:			
TRA/SWMS Reference:			
Work Description	☐ **Spoil Import – Complete section 2** ☐ **Spoil export – Complete section 3** ☐ **On-site movement of spoil – Complete section 4**		

Section 2: Spoil Import Details	
Volume (m^3 or *tonnes)*	
Source location	*(Name and address of source of the spoil)*
Generator of soil or spoil	*(Company name of the generator of the spoil)*
Address of source site	*(Location that the spoil was generated)*

Section 2: Spoil Import Details	
Transporter	*(Company name of the spoil transporter)*
Source site authorisation	*(Permit, licence, approval, authorisation of the source site)*
On-site destination	*(Location that the spoil will be deposited and used on-site)*
Soil or spoil classification	*(The spoil generator or importer must provide evidence of the physicochemical classification of the soil or spoil – evidence must be attached to this permit)*
Site auditor review and approval (if relevant)	☐ *Yes – evidence must be attached.* ☐ *No* ☐ *Not applicable* *If 'No', specify reason:*

Section 3: Spoil Export Details	
Volume *(m^3 or tonnes)*	
Source location	*(Location that the spoil was generated)*
Receiving facility	*(Name and address of receiving facility)*
Receiving facility type	☐ *Waste management facility* ☐ *Other* *If 'Other', specify here:*
Receiving facility authorisation	*(Permit, licence, approval, or authorisation of the receiving facility)*
Transporter	*(Company name of the spoil transporter)*
Soil or spoil classification	*(The spoil exporter must provide evidence of the physicochemical classification of the spoil – evidence must be attached to this permit)*

Section 4: Spoil On-Site Movement Details – For On-Site Reuse Of Priority, Listed, Controlled, Or Regulated Waste Spoil	
Volume *(m^3 or tonnes)*	
Source location	*(Location that the spoil was generated)*
Receiving location	*(On-site location that the spoil will be moved to)*
Spoil or spoil characterisation	*(Physicochemical classification of the spoil – evidence must be attached to this permit)*
Site auditor review and approval (if relevant)	☐ *Yes – evidence must be attached* ☐ *No* ☐ *Not applicable* *If 'No', specify reason:*

Section 5: Permit Approval, Issue, And Acceptance			
I confirm that the documented controls have been implemented and the task will be performed in accordance with the permit requirements. Any change in circumstance will require review and re-issue of the permit before works proceed.			
Permit Applicant	**Company**	**Signature**	**Date**
			Click or tap to enter a date.
Permit Holder	**Company**	**Signature**	**Date**
			Click or tap to enter a date.
I have sighted and reviewed this application, any attached plans/reports/documentation and the control measures detailed within. I confirm that works may proceed as described in this permit.			
Permit Controller		**Signature**	**Date**
			Click or tap to enter a date.

Appendix C – Waste Tracking Register

Waste Tracking Register (Internal and External)															
Date	Day	Truck Rego / plant #	Truck Docket	Time Load Out	Vehicle	Estimated Volume (m3)	Estimated Quantity (t)	Area of excavation	Waste Analysis Classification Certificate	Classification	Haulage & Disposal Company	Tipping location	Weighbridge / Run sheet docket - receival End	Actual Quantity (t)	Actual Volume (m3)

Appendix D - Imported Materials Tracking Register

Date	Day	Truck Rego / plant #	Truck Docket	Time Load In	Source Company	Transport Company	Estimated Volume (m3)	Estimated Quantity (t)	Site delivery location	Material Type	EPL number source company	Stockpiled for future use or used on site immediately	Stockpile of materials location on site if stockpiled for future use	Stockpile name