JOHN HOLLAND

INLAND RAIL
ILLABO TO STOCKINBINGAL PROJECT

Contaminated Land and Hazardous Material Management Plan

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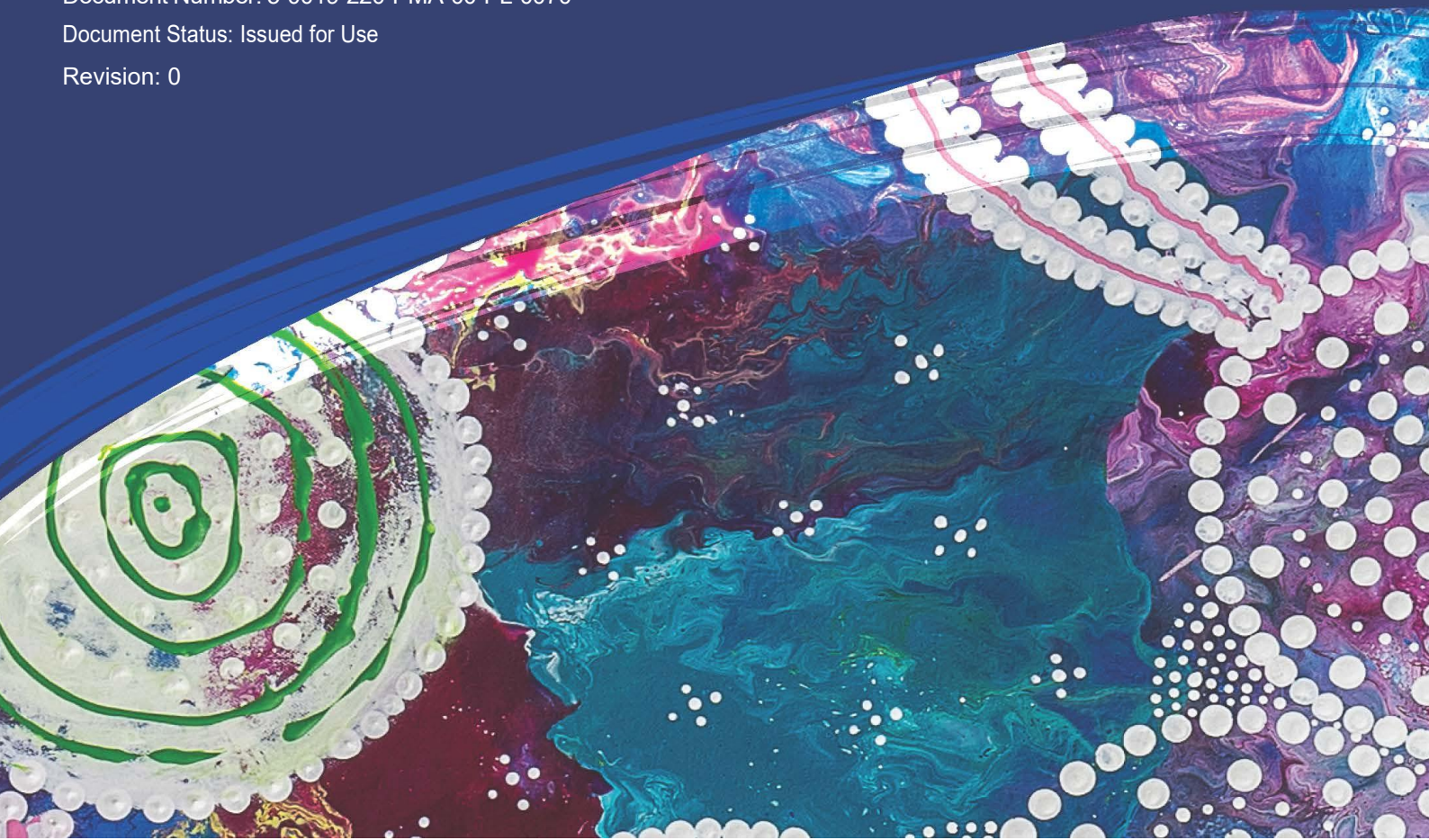

Document Control

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Revision History

REVISION	DATE ISSUED	DESCRIPTION
A	8/1/2025	Issued for Review
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1 Revisions and Distribution

1.1 Revisions

Draft issues of this document are identified as Revision A, B, C etc. Following acceptance by the document approver, the first finalised revision will be Revision 0. Subsequent revisions will have an increase of "1" in the revision number (1, 2, 3 etc.).

1.2 Distribution

The controlled master version of this document is available for distribution as appropriate and maintained on the document management system being used on the project. All circulated hard copies of this document are deemed to be uncontrolled.

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2 References, Definitions and Abbreviations

2.1 Definitions and Abbreviations

Term / Abbreviation	Definition / Expanded text
ADWG	Australian Drinking Water Guidelines
AEC	Areas of Environmental Concern
AMS	Activity Method Statement is a planning process to determine detailed methodology which breaks down and analyses individual WRA work elements. Also referred in industry as Work Method Statement (WMS), Work Pack and/or Safety Activity Pack.
ANZECC	Australian and New Zealand Guidelines for Fresh and Marine Water Quality
ARTC	Australian Rail Track Corporation
CCS	Community Communication Strategy
CEMP	Construction Environmental Management Plan
CLA	Contaminated Land Assessment
CLM Act	*Contaminated Land Management Act 1997 (NSW)*
CoA	Conditions of Approval
CSSI	Critical State Significant Infrastructure
CSWMP	Construction Soil and Water Management Plan
CWMP	Construction Waste Management Plan
DPHI	Department of Planning, Housing and Infrastructure
DSI	Detailed Site Investigations
EMIS	Environmental Management Information System
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-9406) 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)
EP&A Act	*Environmental Planning and Assessment Act 1979 (NSW)*
EPA	Environment Protection Authority
EPL	Environment Protection Licence
ER	Environmental Representative
GMR	Global Mandatory Requirement

Term / Abbreviation	Definition / Expanded text
HSR	Health & Safety Representative
IMS	(JHG) Integrated Management System
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
km	Kilometres
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 (b) 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).
m	Metres
NEPC	National Environment Protection Council
NEPM	*National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended)*
NSW	New South Wales
POEO Act	*Protection of the Environment Operations Act 1997*
PPE	Personal Protective Equipment
RAP	Remedial Action Plan
SDS	Safety Data Sheet
SEARs	Secretary's Environmental Assessment Requirements
SuRF	A Framework for Assessing the Sustainability of Soil and Groundwater Remediation, 2009
SWMS	Safe Work Method Statement
TRA	Task Risk Assessment or equivalent (e.g., JSA)
UMMs	Updated Mitigation Measures
WHS	Work Health & Safety
Work	Any physical work for the purpose of the CSSI including construction and low impact work but not including operational maintenance work

Term / Abbreviation	Definition / Expanded text
Worker	In the context of John Holland controlled workplaces, worker refers to John Holland workers, contractors and any person engaged to participate in work activities at the workplace.
WARR Act	*Waste Avoidance and Resource Recovery Act 2001*
WRA	Workplace Risk Assessment

2.2 Compliance Roadmap

2.2.1 Minister's Conditions of Approval – CSSI-9406

The primary NSW CoA relevant to the development of this Plan are listed below

Table 2-1 Primary NSW CoA

CoA No.	Condition Requirements	Document Reference
A17	**Low Impact Work** LIW as defined in the definition section (page 6 and 7) from the NSW Government Department of Planning, Housing and Infrastructure Conditions of Approval for Inland Rail – Illabo to Stockinbingal SSI 9406 Prior to the commencement of low impact work, an Unexpected and Incidental Finds Protocol must be developed for: (b) contamination, hazards and contaminated land The Unexpected and Incidental Finds Protocol must include procedures for: (i) all Work in the associated location to stop to prevent further impact; and (ii) notifying the Planning Secretary and relevant state agencies in writing. Work must not recommence until the relevant state agencies have been consulted and any required approvals have been obtained. The Unexpected and Incidental Finds Protocol must be made publicly available prior to low impact work commencing and must be implemented during low impact work.	Section 8.10 Unexpected and Incidental Finds Protocol
C17	Except as provided by Condition C1, the following CEMP Sub-plans must be prepared in consultation with the relevant state agencies, relevant councils and RAPs identified for each CEMP Sub-plan. Evidence of consultation must be provided consistent with Condition A10. (d) Soil and Water – in consultation with Relevant Councils an BCS	Section 3.5
C18	The CEMP Sub-plans listed in Condition C17 must state how: (a) the environmental performance outcomes identified in the documents listed in Condition A1, as modified by these conditions, will be achieved;	Section 4.2.1
	(b) the mitigation measures identified in the documents listed in Condition A1, as modified by these conditions will be implemented;	Section 8
	(c) the relevant terms of this approval will be complied with; and	Section 5
	(d) issues requiring management during construction, as identified through ongoing environmental risk analysis, will be managed.	Section 8
C26	Construction must not commence until the CEMP and all 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 C1). The CEMP and CEMP Sub-plans, as approved by the Planning Secretary,	Section 3.4.1

CoA No.	Condition Requirements	Document Reference
	including any minor amendments approved by the 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.	
E151	A Site Auditor(s) must be engaged before the commencement of contamination investigations until the completion of construction to ensure contamination is appropriately managed. The Site Auditor is to review all documentation relevant to contamination, including previous site audits, and provide a written opinion on the contamination risk and the appropriateness of the reports and any proposed management measures of the site, including (but not limited to): (a) the management and monitoring plans in Conditions C12 and C17, where relevant, including any updates or amendments to those plans; (b) Sampling and Analysis Quality Plan in Condition E154; (c) Detailed Site Investigation Report(s) in Condition E155; (d) Remedial Action Plans in Condition E156; (e) Unexpected Finds Procedure for Contamination in Condition E161; and (f) Post-remediation validation reports.	Section 8.1 Section 8.2.2
E152	All recommendations made by the Site Auditor must be implemented before commencing work (other than intrusive work conducted as part of detailed site investigations) that could result in any disturbance of any land identified as an area of potential contamination.	Section 8.1
E153	Evidence that a Site Auditor has reviewed each of the required plans and reports listed in Condition E151 and has issued an interim audit advice or a relevant Site Audit Statement regarding the appropriateness of those plans or reports must be appended to those plans or reports. ***Note:*** *Any associated Site Auditor report, or interim audit advice or a relevant Site Audit Statement must made publicly available in accordance with Condition B18.*	Section 8.1
E154	A Sampling and Analysis Quality Plan (SAQP) must be completed prior to Detailed Site Investigations being undertaken. The SAQP must: (a) be prepared by a suitably qualified and experienced contaminated land consultant(s) in accordance with the relevant guidelines made or approved by the EPA under section 105 of the Contaminated Land Management Act 1997 (CLM Act); (b) be prepared where construction or land disturbing activity is to be undertaken, on sites identified as for medium to high risk sites as identified in the documents referred to in Condition A1, to ensure that field investigations and analyses will be undertaken in a way	Section 8.1

CoA No.	Condition Requirements	Document Reference
	that enables the collection and reporting of reliable including (where applicable) the relevant site characterisation requirements of the detailed or targeted site investigations; and (c) inform the development of Detailed Site Investigations.	
E155	Detailed Site Investigations (DSI) must: (a) be undertaken by a suitably qualified and experienced contaminated land consultant(s); (b) be prepared in accordance with the relevant guidelines made or approved by the EPA under section 105 of the CLM Act; (c) be undertaken before the commencement of work that would result in any disturbance of land identified as medium to high risk areas of potential contamination in the relevant documents in Condition A1 or as updated by Condition E152; (d) determine the nature and extent of contamination in soil, groundwater, surface water, ground gases and sediments (where applicable); (e) consider whether contamination has the potential to pose an unacceptable risk to human health or the environment on or off-site; (f) include recommendations for further investigations, remediation and/or management of contamination; (g) be prepared in accordance with the land use criteria applicable to the final land use at the opening of the CSSI; (h) be reviewed by the accredited Site Auditor with the intent of issuing Interim Audit Advice commenting on the adequacy of the report; and (i) be provided to the Planning Secretary upon request, along any associated Site Auditor's Advice. **Notes:** 1. *This condition does not prevent disturbance to land that is required to complete the Detailed Site Investigations.* 2. *The intention of this condition is to require Detailed Site Investigations of locations identified as an area of potential contamination to be completed before any form of excavation, including the use of hand tools, exposes soil. This will minimise risks to human health and/or the environment.* 3. *Detailed Site Investigation Reports must made publicly available in accordance with Condition B18.* 4. *Nothing in this condition prevents the preparation of individual Detailed Site Investigation Reports for separate contaminated sites.* **5.** *Any recommendations made in the Detailed Site Investigation Report for changes to management measures in the CEMP sub-*	Section 8.1

CoA No.	Condition Requirements	Document Reference
	plan(s) must be incorporated into the relevant subplan required by Condition C17, unless otherwise approved by the Planning Secretary.	
E156	**Remediation** Where remediation is required to make land suitable for the final intended land use, a Remedial Action Plan must: (a) be undertaken by a suitably qualified and experienced contaminated land consultant(s); (b) be prepared in accordance with relevant guidelines made or approved by the EPA under section 105 of the CLM Act; (c) outline remediation options to address the contamination and the final chosen remediation methodology to make the land suitable for the final intended land use; (d) be reviewed by the accredited Site Auditor with the intent of issuing interim audit advice commenting on the adequacy of the report; and (e) be provided to the Planning Secretary upon request, along with any associated Site Auditor's advice. **Note:** *Nothing in this condition prevents the preparation of individual Remedial Action Plans for separate contaminated areas within the project footprint.*	Section 8.1
E157	Before commencing remediation, a Section B Site Audit Statement(s) or an interim audit advice must be prepared by a Site Auditor that certifies that the Remedial Action Plan is appropriate and that the site can be made suitable for the proposed use. The Remedial Action Plan must be implemented and any changes to the Remedial Action Plan must be approved in writing by the Site Auditor. **Note:** *Nothing in this condition prevents the Proponent from engaging the Site Auditor to prepare Site Audit Statements for separate contaminated sites.*	Section 8.1
E158	For any land identified as an area of moderate or high potential contamination risk, a SectionA1 Site Audit Statement or A2 Site Audit Statement (accompanied by an Environmental Management Plan) and a Site Audit Report must be prepared which states that the contaminated land disturbed by the work has been made suitable for the intended land use. The Site Audit Statement and Site Audit Report must be provided to the relevant council after remediation and no later than before the commencement of operation of the CSSI. **Notes:** 1. *Nothing in this condition prevents the Proponent from obtaining Section A Site Audit Statements for individual parcels of remediated land.*	Section 8.1

CoA No.	Condition Requirements	Document Reference
	2. *As required by Condition E153, interim audit advice may be provided prior to a final Site Audit Statement and Site Audit Report.* 3. *Any associated Site Auditor Report, or interim audit advice or a relevant Site Audit Statement must made publicly available in accordance with Condition B18.*	
E159	Contaminated land must not be used for the purpose approved under the terms of this approval until a Section A1 or A2 Site Audit Statement is obtained which states that the land is suitable for that purpose and any conditions on the Section A Site Audit Statement have been complied with.	Section 8.1
E160	Where required, any recommendations to minimise risk to human health or the environment or for the management of contamination arising, the Site Auditor's review, advice or audits must be incorporated into the relevant CEMP subplan and implemented.	Section 8.1
E161	**Unexpected Finds** An Unexpected Finds Procedure for Contamination must: (a) be prepared prior to the commencement of Work and must be followed should unexpected contamination or asbestos (or suspected contamination) be excavated or otherwise discovered; (b) include details of who will be responsible for implementing the unexpected finds procedure and the roles and responsibilities of all parties involved; (c) be reviewed by the Site Auditor and interim audit advice or a Section B Site Audit Statement provided certifying that the Unexpected Finds Procedure is appropriate; (d) be provided to the Planning Secretary and the EPA upon request with a copy of the interim audit advice or Section B Site Audit Statement attached; and (e) be implemented throughout work.	Section 8.10

2.2.2 Updated Mitigation Measures

The primary UMMs relevant to the development of this Plan are listed below.

Table 2-2 Updated Mitigation Measures relevant to this Plan

Ref.	Issue	Mitigation Measure	Timing	Document Reference
SC-2	Contamination	Hazardous materials surveys would be undertaken during detailed design for all proposed demolition activities.	Detailed Design / Pre-Construction	Section 8.1
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.	Detailed Design / Pre-Construction	Section 8.1
SC-4	Contamination (investigations)	Site investigations would be undertaken by a suitably qualified and experience consultant as defined in Schedule B9 of the National Environment Protection (Assessment of Site Contamination) Measure 2013 (NEPM, 2013) to assess exposure risks to site workers and other receptors as a result of disturbances to the following areas considered to be at a medium-to-low risk of being contaminated: • AEC 1—Three grain silos adjacent to the railway line. • AEC 2—disused broken machinery and parts, potential asbestos containing material • AEC 3—four grain silos and machinery associated with these silos including tractors and multi-feeders within a private property. • AEC 5—a locked chemical storage shed and drums containing pesticides • AEC 6—fox baits • AEC 7—stockpile of waste including wood and rubble • AEC 8— the Main South Line (railway line)	Detailed Design / Pre-Construction	Section 8.1

Ref.	Issue	Mitigation Measure	Timing	Document Reference
		• AEC 9— crossing the Main South Line (railway line) • AEC 10—The Forbes Line (railway line north of Stockinbingal). The results of the site investigations would be assessed against the criteria contained within the National Environment Protection (Assessment of Site Contamination) Measure 1999 to determine the need for any remediation.		
SC-7	Contamination Management	A contaminated land and hazardous materials management plan would be prepared and implemented as part of the CEMP. The plan would include but not be limited to: • further investigations during detailed design would be required to characterise contamination at registered or otherwise identified contaminated sites. Results would be used to further inform CEMP requirements. • a methodology to manage excavation and spoil management with known contaminated sites • capture and management of any surface runoff contaminated by exposure to the contaminated land • measures to ensure the safety of site personnel, environment and local communities during construction • procedures for incident management and managing unexpected contamination finds (an unexpected finds protocol).	Construction	Section 8.1

3 Introduction

3.1 Context

This Contaminated Land and Hazardous Material Management Plan (CLHMMP or Plan) forms part of the Construction Environmental Management Plan (CEMP) for the Inland Rail – Illabo to Stockinbingal Project (the Project).

This Plan has been prepared to address the requirements of the Minister's Conditions of Approval (CoA), the measures listed in the Environmental Assessment Documentation and all relevant legislation.

3.2 Background

3.2.1 The Project

The Project is located in south-western New South Wales (NSW) in the Riverina region (refer to Figure 3-1). Illabo is a small town located at the southern end of the alignment 16 kilometres (km) north-east of Junee in the Junee Local Government Area (LGA). Stockinbingal 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:

- single track standard gauge on a combination of existing ground level embankments and within cuttings
- new bridges and road overpasses
- crossing loop and maintenance siding
- new level crossings, stock crossings and upgrades to existing level crossings
- new major stormwater diversion and minor drainage works associated with installation and upgrades to culverts.

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 the Project. Key features of the Project are shown on Figure 3-2.

A detailed Project description is provided in Section 2 of the CEMP.

3.2.2 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, WSP on behalf of 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.

3.3 Scope of the plan

The scope of this CLHMMP is to describe how the potential contamination impacts will be managed during construction of the Project. This CLHMMP has been prepared under and consistent with the CEMP. In the preparation and ongoing implementation of this Plan, SMART (Specific, Measurable, Achievable, Realistic and Timely) principles are considered and applied.

This CLHMMP has been prepared as a Sub-plan only addressing contaminated land management. Soil management is addressed in the Construction Soil and Water Management Plan (CSWMP).

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

A copy of this CLHMMP will be kept on the premises for the duration of construction. Operational contamination impacts and operation measures do not fall within the scope of this Plan and are therefore not included within the processes contained within the CLHMMP.

3.4 Environmental Management Systems Overview

The Environmental Management System (EMS) for the Project is described in the CEMP.

To achieve the intended environmental performance outcomes, JHG have established, implemented, maintained and continually improved an EMS in accordance with the requirements of ISO14001:2015. The John Holland EMS will be adopted as the guiding environmental management framework for the Project.

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

- **Project Environment and Sustainability Policy.** Outlines the commitments and intentions established by John Holland to ensure environmental performance and sustainability objectives and targets are achieved (Appendix A3 of the CEMP).
- **CEMP**. Details the processes and procedures to be implemented during the Project to comply with applicable CoA, Updated Mitigation Measures (UMMs), legislative obligations and contractual requirements.
- **Environmental Management Sub-plans**. These documents describe procedures and controls for specific environmental aspects requiring more rigorous management strategies

- **Monitoring Programs**. Details the monitoring regime to be implemented during construction to compare the actual performance of construction against the objectives outlined in the relevant Plan, including setting specific triggers and associated responses.
- **Activity Method Statements (AMS)**. Management measures identified in this Plan may also be incorporated into site or activity specific AMS. These documents incorporate appropriate mitigation measures and controls and identify key procedures to be used concurrently with the AMS. Construction personnel undertaking a task governed by an AMS must undertake the activity in accordance with the mitigation and management measures identified within the document.
- **Sensitive Area Plans (SEPs / Environmental control maps (ECMs)**. A series of maps providing key features of the alignment and relevant environmental constraints. Features include waterways, heritage, biodiversity contamination and sensitive receivers amongst other site relevant features.
- **Workplace Risk Assessment (WRA)** (strategic risk assessment conducted on workplace and broken down into work components for the purpose of identifying system, training, legislative, and the identification of further detailed planning and risk assessment activities).
- The **Task Risk Assessment (TRA)/Safe Work Method Statements (SWMS)** will be included as part of any required Remediation Action Plans, TRA's will detail specific OH&S requirements to manage the proposed work methodologies in order to safely and effectively remediate contaminated land.
- **Procedures, strategies and protocols.** Detailed procedures, strategies and protocols will be developed as required.

3.4.1 Plan preparation, endorsement and approval

The CLHMMP has been prepared to satisfy the NSW CoA and Updated Mitigation Measures (UMMs) in relation to the management of Contaminated Land and Hazardous Materials during construction of the Project, particularly UMM SC-7.

The CLHMMP will be reviewed by the Inland Rail Pty Ltd (IRPL) Senior Environmental Advisor (or delegate) and the independent Environmental Representative (ER). The CLHHMP will be provided to the Site Auditor who will review and issue interim audit advice (or a Section B Site Audit Statement) certifying this Plan is appropriate to manage contaminated soils, sediments, water and other material.

Construction of the Project will not commence until the CEMP is endorsed by the ER and approved by the Planning Secretary.

3.5 Consultation

The CLHMMP forms a subplan to the CEMP. Consultation requirements under Condition of Approval C17 that will be undertaken for the project are addressed separately within the CSWMP and CEMP. This plan (CLHMMP), has no specific consultation requirements.

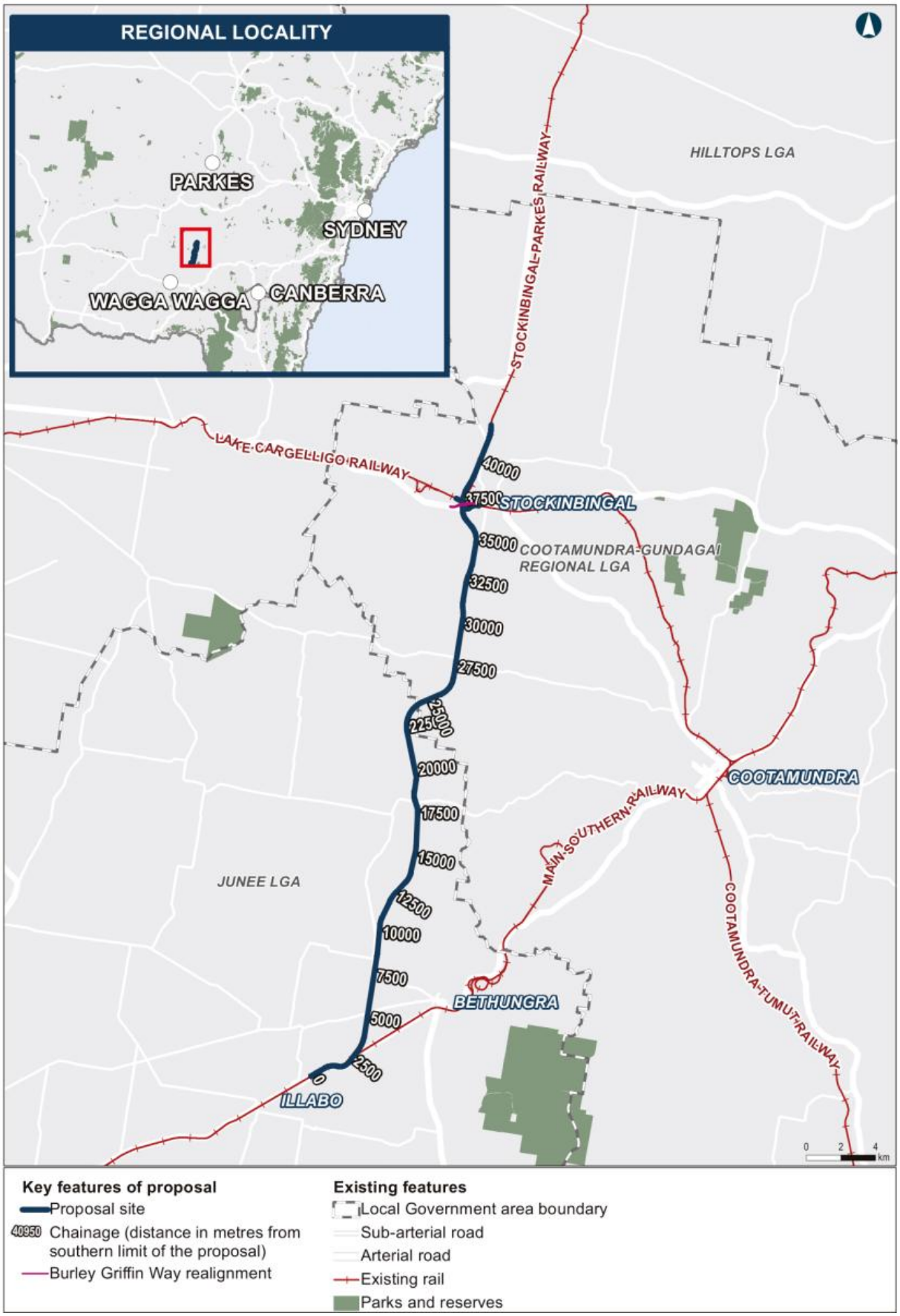

Figure 3-1 Project Locality

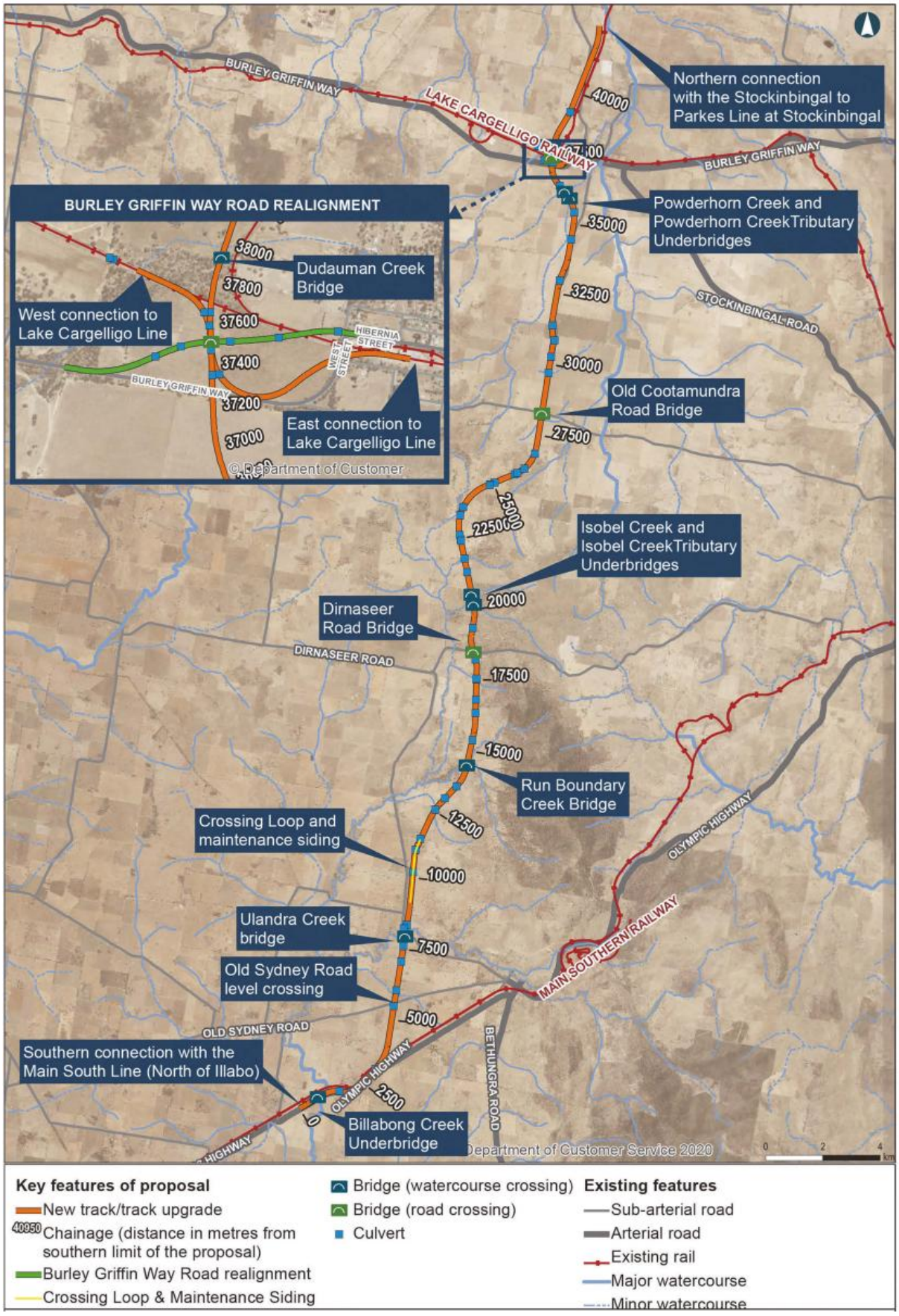

Figure 3-2 Key Project Features

4 Purpose and Objectives

4.1 Purpose

The purpose of this CLHMMP is to establish a set of best practice procedures to be undertaken by JHG for the identification and management of contaminated land and hazardous materials during construction for the Project.

This CLHMMP only provides the management of contaminated land and Hazardous Materials during construction. Nonetheless, JHG is responsible to complete the construction works in a manner that prevents contamination of land resulting from construction activities and does not exacerbate any potential contamination finds.

4.2 Objectives

The key objective of this CLHMMP is to prevent contamination of soil and pollution of water resources resulting from contaminated land during construction of the Project. To aid in achieving this objective all CoA, UMMs and licence/permit requirements relevant to contaminated land are described, scheduled and assigned responsibility as outlined in:

- Environmental Assessment Documentation
- Infrastructure Approval CoA (SSI 9406)
- Environment Protection Licence
- Inland Rail Specifications
- All relevant legislation and other requirements described in Section 5.1 of this Plan.

4.2.1 Performance Outcomes

The EIS identifies a number of desired performance outcomes for the Project. These desired performance outcomes outline the broader objectives to be achieved across design, construction and operational phases.

JHG will meet the performance outcomes relating to the management of contamination and hazardous materials from the Environmental Impact Statement (EIS) (Chapter 20 and Technical paper 14) as required by NSW CoA, particularly Conditions A17(b), E155, E156, E158, E160 E161 and UMM SC-7 . Relevant performance outcomes are detailed in Table 4-1.

Table 4-1 Performance Outcomes during construction

Performance Outcome	EIS Requirement	How Addressed	Measurement Tool
Soils The environmental values of land, including soils, subsoils and landforms, are protected. Risks arising from the disturbance and excavation of land disposal of soil are minimised, including	• Assess whether the land (land being classified as within the operational footprint of the project) is likely to be contaminated and identify if remediation of the land is required, having regard to the ecological and human health risks posed by	• Contamination (if identified) will be managed to protect environmental values and human health • Unexpected Finds Procedure I for contamination has been developed for the Project	Weekly inspections / observations

Performance Outcome	EIS Requirement	How Addressed	Measurement Tool
disturbance to acid sulphate soils and site contamination.	the contamination in the context of past, existing and future land uses. Where assessment and/or remediation is required, the Proponent must document how the assessment and/or remediation would be undertaken in accordance with the NSW EPA Waste Classification guidelines. • Assess whether salinity is likely to be an issue and if so, determine the presence, extent and severity of soil salinity within the project area. • Assess the impacts of the project on soil salinity and how it may affect groundwater resources and hydrology. • Assess the impacts on soil and land resources (including erosion risk or hazard). Particular attention must be given to soil erosion and sediment transport consistent with the practices and principles in the current guidelines.	• Site Auditor engaged for the entire extent and duration of the works • Remedial Action Plans and Site Auditor advice will be followed in the instance where remediation of contamination is required	

4.3 Targets

Targets for the management of contaminated land and hazardous material during the Project have been established to enable compliance with relevant legislative requirements, CoA and environmental management measures. These targets have been developed based on inputs from the EIS, the relevant

CoAs and mitigation measures associated with contaminated land management. The risks associated with contamination identified in the EIS (Chapter 20 – Soils and Contamination) were reviewed and targets were derived and incorporated in the table below. These targets and how they will be measured are outlined in Table 4-2.

Table 4-2 Targets for the management of contaminated land during construction

Target	Measurement Tool
Compliance with the relevant legislative requirements and UMMs	Compliance Monitoring
No pollution to the receiving environment as a result of disturbance of contaminated land	Register of contaminated sites Register of Environmental Incidents
No exposure of persons to contaminants during works	WHS incidents register
Contaminated materials appropriately identified, segregated and managed	Records pertaining to unexpected finds handling and unexpected finds register
Notification of any unexpected finds of contamination uncovered during construction	Site notifications
Ensure project personnel are informed via toolbox talks and the Project induction to enable the identification of potentially contaminated land	Induction and training records
Minimise impacts on the surrounding community and stakeholders. Minimisation of potential complaints from the community.	Complaints Register

5 Environmental Requirements

In accordance with NSW CoA A5, references in the terms of this CLHMMP to any guideline, protocol, Australian Standard or policy are to such guidelines, protocols, Standards or policies in the form they are in at the date of the Infrastructure Approval (SSI-9406).

5.1 Relevant legislation and Guidelines

The primary legislation, guidelines and standards relevant to contamination management are presented in Table 5-1. This CLHMMP has been prepared in consideration of and is consistent with this documentation.

Table 5-1 Principal legislation and guidelines relevant to Contamination Management

Legislation	• *Contaminated Land Management Act 1997 (NSW)* (CLM Act) • *Contaminated Land Management Regulation 2022* • *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended) (the NEPM) (National Environment Protection Council (NEPC), 2013)* • *Environmental Planning and Assessment Act 1979 (NSW)* (EP&A Act) • *State Environmental Planning Policy (Resilience and Hazards) 2021* • *Protection of the Environment Operations Act 1997 I(NSW)* (POEO Act) • *Waste Avoidance and Resource Recovery Act 2001* (WARR Act) • *Protection of the Environment Operations (General) Regulation 2009* • *Protection of the Environment Operations (Waste) Regulation 2014.* • *Environmentally Hazardous Chemicals Act 1985* • *Environmentally Hazardous Chemicals Regulation 2017* • *Pesticides Act 1999* • *Pesticides Regulation 2009* • *Work Health and Safety Act (2011)* • *Work Health and Safety Regulation (2017).*
Guidelines and Specifications	• A Framework for Assessing the Sustainability of Soil and Groundwater Remediation (SuRF 2009) • Australian Drinking Water Guidelines (ADWG 2011) • Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZG 2018) superseded by Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC & ARMCANZ, 2000) • Australian Standard (AS 4482.1-2005) Guide to the sampling and investigation of potentially contaminated soil. Part 1: Non-volatile and semi-volatile compounds and Australian Standard (AS 4482.2-1999) Guide to the sampling and investigation of potentially contaminated soils – Volatile substances. While the AS 4482.2 have been withdrawn they have been used in the absence of any other relevant Australian guidance. • Australian Standard (AS 2601-2001): The demolition of structures

- Contaminated Sites: Guidelines for the Assessment and Management of Groundwater Contamination (Department of Environment and Conservation NSW, 2007)
- Cooperative Research Centre for Contamination Assessment and Remediation of the Environment: Technical Report No. 10, Health Screening Levels for Petroleum Hydrocarbons in Soil and Groundwater Part 1: Technical development document, 2011 (CRC Care 2011)
- Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997 (Environment Protection Authority 2015)
- Managing asbestos in or on soil (SafeWork NSW, 2014)
- Contaminated land planning guidelines: Resilience and Hazards SEPP (DPE 2021)
- 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) (Department of Environment and Climate Change NSW, 2008)
- National Health and Medical Research Council, Guidelines for Managing Risks in Recreational Water (NHMRC 2008)
- NSW EPA (2019) Guidelines for the Assessment and Management of Sites Impacted by Hazardous Ground Gases
- NSW EPA (2014) Waste Classification Guidelines
- NSW EPA (2014) Addendum to the Waste Classification Guidelines – Part 1: classifying waste
- NSW EPA (2014) Best Practice Note: Landfarming
- NSW EPA (2015b) Technical Note: Light Non-Aqueous Phase Liquid Assessment and Remediation
- NSW EPA (2017) Contaminated Sites: Guidelines for the NSW Site Auditor Scheme (3rd Edition)
- NSW EPA (2020) Consultants reporting on contaminated land
- NSW EPA (2022) Sample design guidelines
    - Sampling design part 1 - Application
    - Sampling design part 2 - Interpretation
- Other guidelines made or approved under section 105 of the Contaminated Land Management Act 1997
- PFAS - National Environmental Management Plan Version 3.0 (HEPA, January 2020)
- Soil and Landscape Issues in Environmental Impact Assessment (Gray, 2000)
- Urban and regional salinity guidance given in the Local Government Salinity Initiative booklets which includes Site Investigations for Urban Salinity (DLWC, 2002)
- Vapour Intrusion: Technical Practice Note (Department of Environment, Climate Change and Water NSW, 2010)
- How to manage and control asbestos in the workplace – Code of Practice (Safe work Australia, July 2020)

	• How to safely remove asbestos – Code of Practice (Safe work Australia, July 2020).

Relevant provisions of the above legislation are identified in the register of legal requirements included in Appendix A1 of the CEMP.

5.2 Environment Protection Licence

The Project is subject to an Environment Protection Licence (EPL) as a Scheduled Activity for 'rail construction'. EPLs require practical measures that could be taken to protect the environment from harm. Compliance with the obligations of the EPL assist in avoiding indirect impacts through pollution or other disturbances. The Project will be constructed so as to meet requirements identified in the EPL including any requirements associated with contaminated land management and mitigation.

5.3 Inland Rail D&C Specifications

The IRPL Design and Construct (D&C) Specifications set out the minimum requirements for the detailed outcomes in terms of quality or performance expected in the finished product for construction projects and are relevant to various construction activities on work sites to minimise impacts to the environment.

This CLHMMP incorporates the relevant requirements to contaminated land and hazardous material management from the IRPL D&C Specifications prepared for I2S including Inland Rail - Contamination, Spoil and Waste Strategy (0-0000-900-EEC-00-ST-0002_4)

The specifications set out environmental protection requirements, including Hold Points and Witness Points that must be complied with during construction of the Project. A Hold Point is a point beyond which a work process must not proceed without express written authorisation from IRPL.. Witness Points are an identified point in the process where IRPL request to, review, witness, inspect method and/or process of work. The activities, however, may proceed. For processes under the CEMP, the request for release of Hold Points and Witness Points is to be made through the IRPL Principal Environment Advisor (or delegate). Hold Points and Witness Points are detailed in Section 7.6.3 of the CEMP.

Details of the Hold Points and Witness Points relevant to this CLHMMP are outlined in Section 9.4

6 Existing Environment

6.1 Key Reference Documentation

Key reference documents used to develop this section which are relevant to the management of contamination, contaminated land and hazardous materials include:

- EIS Chapter 20 – Soils and Contamination
- EIS Technical Paper 14 – Contaminated Land Assessment
- Relevant legislation, guidelines and specifications (Section 5.1 of this Plan).

6.2 Current and Historical Land Uses

A review of current and historical land uses indicated the Project site has been predominantly utilised for agriculture since European settlement. Other land use within the Project area includes rail and road infrastructure, as well as residential and commercial properties within Stockinbingal.

While the potential for significant contamination across the study area was noted as a low to moderate risk, potential sources of contamination associated with the historical use of the study area were identified to include:

- spraying of agricultural land with herbicides and pesticides
- machinery storage and maintenance, including hydrocarbons and heavy metals
- sheep dips, including use of heavy metals and chemicals
- uncontrolled fill material
- contamination within areas of existing railway line, potentially including pesticides, hydrocarbons,
- heavy metals and asbestos
- illegally dumped waste.

6.3 Contaminated Land Risk

6.3.1 Areas of Environmental Concern

A review of the EPA Contaminated Sites Register (22 February 2019) undertaken as part of the EIS did not identify any listed contaminated site within 1 km of the Project. Some identified contaminated sites within the Cootamundra and Junee Shire LGA's were identified; however, they are located a substantial distance from the Project footprint and would not be considered likely to have an impact on contamination at the site (NSW EPA, 2019a).

Additionally, a search of the POEO Act public register undertaken on the 22 February 2019 did not identify sites holding an environmental protection licence within one kilometre of the proposal site. A further search in the ARTC contamination records did not identify any areas relevant to the proposal (NSW EPA, 2019b).

Significant sources of contamination were not identified during site walkover inspections. Technical Paper 14 – Contaminated Land Assessment identifies a number of Areas of Environmental Concern (AEC) identified within the Project footprint. Although none of the AECs were identified as containing significant quantities of chemicals or materials indicating high risk of contamination, it was identified that these areas may require further assessment during further design development prior to construction. AECs identified for the Project are detailed in Table 6-1, the location of these areas are presented on Figure 6-1.

Table 6-1 Areas of Environmental Concern identified within the Project Site

AEC	Location	Description
AEC 1	E: 147.875252 S: -34.500005	Three grain silos adjacent to the railway line. These sites would have a higher density of heavy vehicle movements at times in the year and potential for some historical vehicle maintenance and of refuelling or other to have occurred.
AEC 2	E: 147.876396 S: 34.500507	Disused broken machinery and parts, potential asbestos containing material.
AEC 3	E: 147.813394 S: 34.732379	Four grain silos and machinery associated with these silos including tractors and multi-feeders within a private property.
AEC 4	E: 147.812546 S: 34.736752	Bethungra Rural Fire Brigade service shed with associated fire suppressants and one water tank.
AEC 5	E: 147.813635254 S: 34.728806	A locked chemical storage shed and drums containing pesticides. Drums were identified to contain herbicides ranging from a pre-emergence herbicide to non-residual, non-selective herbicide.
AEC 6	E: 147.812892 S: 34.764652	Fox baits.
AEC 7	E: 147.877868 S: 34.474969	Stockpile of waste including wood and rubble.
AEC 8	E: 147.880984 S: 34.467658	The Main South Line (railway line).
AEC 9	E: 147.864371 S: 34.497375	Crossing the Main South Line (railway line).
AEC 10	E: 147.875171 S: 34.480497	The Forbes Line (railway line north of Stockinbingal).

In addition to these AECs, the following was observed in relation to potential contaminated risk for the site:

- raised dam walls were identified at a number of locations adjacent to or intersected by the proposal site, which could indicate some filling but are more likely to be constructed using natural materials excavated from the dam and surrounding area
- stockpiles of waste at various locations along the proposal site, particularly where the proposal followed existing roads, comprising of demolition materials
- some broken machinery dumped opposite Stockinbingal station, which included large fragments of potentially asbestos-containing materials
- the alignment crosses many sealed and unsealed roads—where no obvious signs of contamination were noted.

6.3.2 Potential Sources of Contamination

A summary of potential sources of contamination and associated potential areas of concern identified within the Project site is provided in Table 6-2.

Table 6-2 Summary of Potential Contamination Sources / Contaminants of Concern

Activity	Potential Contaminant Source	Potential Contaminant of Concern
Roadway and nearby commercial/industrial sites.	Dumped material and stockpiles adjacent to the proposal site, particularly at road crossings. (AEC 7)	Heavy metals (copper, lead zinc, cadmium, chromium, nickel, arsenic and mercury), asbestos, PAHs.
	Rural fire sheds and fire suppressants. (AEC 4)	TRH, BTEXN, PAHs and PFAS.
	Miscellaneous building structures.	Heavy metals, PAHs asbestos, lead containing dust, soil and/or paint.
Agricultural land adjacent to the proposal site	Use of agricultural chemicals on farm land. (AEC 5)	Heavy metals, OCPs and OPPs.
	Machinery storage and maintenance, refuelling and spray rig filling, agricultural sheds and silos. These generally considered point sources. (Identified AECs 2 and 3)	heavy metals, TRH, BTEXN, solvents, OCPs and OPPs, and asbestos.
	Fauna baits, particularly fox baits. (AEC 6)	Heavy metals, sodium fluoroacetate.
Existing railway line	ill used in construction of the original rail line, possible historical waste disposal along the alignment and weed suppression activities (sections of the alignment between chainage 0 and 3000, and 39000 and 42500). These may be point sources (isolated hotspots) or diffuse sources.	Heavy metals, TRH, BTEXN, PAHs, asbestos along the existing rail easement, lead containing dust and/or paint.
	Old broken railway machines left near to Stockinbingal station. (AEC 2 and 3)	Heavy metals, TRH, BTEXN, PAHs, asbestos, lead containing dust and soil and/or paint.
	Rail line ballast.	Heavy metals, TRH, BTEXN, PAHs, asbestos, lead containing dust and/or paint.
	Possible maintenance activities in sidings and near silos. (Identified as AECs 1 and 3)	Heavy metals, TRH, BTEXN, PAHs, asbestos, lead containing dust and/or paint.

Notes: Total recoverable hydrocarbons (TRH), benzene, toluene, ethylbenzene, xylenes and naphthalene (BTEXN), polycyclic aromatic hydrocarbons (PAHs), organochlorine pesticides (OCP) and organophosphate pesticides (OPP).

6.3.3 Potential Receptors and Exposure Pathways

Potential human and environmental receptors identified within the Project footprint include:

- future construction workers or maintenance workers
- future users of the railway
- current and future rural and residential users of adjacent land.
- underlying soil and groundwater
- aquatic ecosystems.

Based on the potential contaminants and receptors identified, the following potential exposure pathways exist:

- direct contact with or ingestion of impacted surface or near surface soils by construction workers during the rail construction or maintenance workers following construction
- inhalation of dust, vapour or fibres by construction workers during the rail construction or maintenance workers following construction
- inhalation of dust, vapour or fibres by users of the rail or of adjacent land
- ingestion of or dermal contact with impacted groundwater if extracted for beneficial use by nearby site users; and
- migration of impact into the groundwater or surface water bodies.

6.3.4 Assessment of Contamination Risk

A risk assessment (including an assessment of potential contamination sources) was undertaken as part of the assessment report. Technical Paper 14 – Contamination Land Assessment identified a number of potential risks associated with contamination sources, pathways and receptors both within the Project footprint and surrounding landscape.

Risk assessment and management with regards to identified AECs (outlined in Section 6.3.1) and potential source, pathway, receptor linkages is presented in Table 6-3, the location of these areas are presented on Figure 6-1. Mitigation measures are presented in Section 8.1.

Table 6-3 Summary of Potential Contamination Sources / Contaminants of Concern

Activity	Contamination Source	Potential Contaminants of Concern	Pathway	Receptor	Likelihood and consequence rating	Assessed Risk	Recommended Actions
Roadway and general use	Dumped material and stockpiles adjacent to the proposal site, particularly at road crossings. (AEC 7)	Heavy metals, asbestos, PAHs	• Direct contact through inadvertent ingestion, or dermal absorption of soils • Inhalation of impacted soils/dust/fibres.	Future workers on the proposal site	Likelihood – Possible Consequence – Moderate	Medium – uncontrolled and potentially contaminated dumped fill, stockpiles or rubbish poses risks to workers during excavation.	• Targeted soil investigation where visual indicators of dumping • Waste classification and potential removal of dumped material/stockpiles if unsuitable to remain on site.
	Rural fire sheds and fire suppressants. (AEC 4)	TRH, BTEX, PAHs and PFAS	• Direct contact through ingestion, or dermal absorption or soils • Migration from overland flow into surface water bodies • Migration through leaching into groundwater.	• Future workers on the proposal site • Current and future residents • Terrestrial and aquatic ecology • (flora and fauna) within/adjacen	Likelihood – Unlikely Consequence – Low	Low – PFAS would typically be the main concern but communications from RFS indicate no record of their storage on this site. Minor risk related to storage of fuels.	• No immediate action

Activity	Contamination Source	Potential Contaminants of Concern	Pathway	Receptor	Likelihood and consequence rating	Assessed Risk	Recommended Actions
				t to creeks or waterways • Groundwater.			
	Fauna baits, particularly fox baits. (AEC 6)	Heavy metals, sodium fluoroacetate	• Direct contact through inadvertent • ingestion, or dermal absorption.	• Future workers on site	Likelihood – Possible Consequence - Minor	Low – Likely to have been intentionally placed by current landowners and isolated/sporadic in nature. Negligible impacts to soil or groundwater anticipated.	• Manage on site during construction works where encountered
Agricultural land adjacent to the proposal site	Use of agricultural chemicals on farm land. (AEC 5)	Heavy metals, OCPs and OPPs	• Direct contact through inadvertent ingestion, or dermal absorption of soils • inhalation of impacted	• Future workers on the proposal site.	Likelihood – Possible Consequence – Minor	Low – unlikely to be present in significant quantities in soil within the proposal site.	• No immediate actions recommended • Review chemical usage on adjacent properties during construction phase to determine any

Activity	Contamination Source	Potential Contaminants of Concern	Pathway	Receptor	Likelihood and consequence rating	Assessed Risk	Recommended Actions
			soils/dust/vapour spray.				possible airborne (vapour spray) risk to workers.
	Machinery storage and maintenance, refuelling and spray refilling, agricultural sheds and silos. (Identified AECs 2 and 3)	Point sources of heavy metals, TRH, BTEX, solvents, OCPs and OPPs, and asbestos fragments	• Direct contact through inadvertent ingestion, or dermal absorption of soils • inhalation of impacted soils/dust/vapour spray • Migration through leaching into groundwater.	• Future workers on the proposal site • Current and future residents • Groundwater.	Likelihood – Possible Consequence – Moderate	Medium – long term machinery storage or maintenance may be a continued source of impact to soils and groundwater if permeated through soil profile.	• Targeted soil investigation • Waste classification and potential removal of dumped material/stockpiles if unsuitable to remain on site.
Existing railway line	Fill used in construction of the original rail line, possible historical waste disposal along the alignment and weed suppression activities	Diffuse presence or isolated hotspots of Heavy metals, TRH, BTEX, PAHs, asbestos along the existing rail	• Direct contact through inadvertent ingestion, or dermal absorption of soils • inhalation of impacted soils/dust/fibres	• Future workers on the proposal site.	Likelihood – Possible Consequence – Minor	Low – significant unsolicited waste disposal along the alignment is unlikely	• Targeted soil investigation where visual indicators of dumping • Waste classification and potential removal of dumped material/stockpile

Activity	Contamination Source	Potential Contaminants of Concern	Pathway	Receptor	Likelihood and consequence rating	Assessed Risk	Recommended Actions
	(sections of the alignment between chainage 0 and 3000, and 39000 and 42500).	easement, lead containing dust and/or paint.					s if unsuitable to remain on site.
	Old broken railway machines left near to Stockinbingal station. (AEC 2 and 3)	Heavy metals, TRH, BTEX, PAHs, asbestos, lead containing dust and/or paint.	• Direct contact through Inadvertent ingestion, or dermal absorption of impacted soils • Inhalation of impacted soils/dust/fibres • Migration through leaching into groundwater.	• Future workers on the proposal site • Current and future residents • Groundwater.	Likelihood – Possible Consequence – Minor	Low –storage areas may present an isolated source of impact to soils.	• Targeted soil investigation if visual signs of contamination during construction works • Waste classification and potential removal of dumped material/stockpiles if unsuitable to remain on site.
	Rail line ballast	Heavy metals, TRH, BTEX, PAHs, asbestos, lead containing dust and/or paint.	• Direct contact through inadvertent ingestion, or dermal absorption of soils	• Future workers on the proposal site	Likelihood – Possible Consequence – Minor	Low – potentially contain isolated spills or metals dust from trains. Ballast is typically an inert metamorphosed	• No immediate actions recommended • Note any new evidence of former contaminating

Activity	Contamination Source	Potential Contaminants of Concern	Pathway	Receptor	Likelihood and consequence rating	Assessed Risk	Recommended Actions
			• inhalation of impacted soils/dust/fibres			basalt or granite and not considered a contaminant source in of itself.	activities or operations adjacent to the existing rail line which may have impacted upon ballast.
	Possible maintenance activities in sidings and near silos. (identified as AECs 1 and 3)		• Direct contact through inadvertent ingestion, or dermal absorption of soils • inhalation of impacted soils/dust/fibres • Migration through leaching into groundwater.	• Future workers on the proposal site • Current and future residents Groundwater.	Likelihood – Possible Consequence – Minor	Low –storage areas may present an isolated source of impact to soils.	• Targeted soil investigation if visual signs of contamination during construction works • Waste classification and potential removal of dumped material/stockpiles if unsuitable to remain on site.

For visual examples of onsite contamination see *Appendix A Visual examples of on-site contamination* from *240107 – Inland Rail – Illabo to Stockinbingal – Low Impact Works – Site Contamination.*

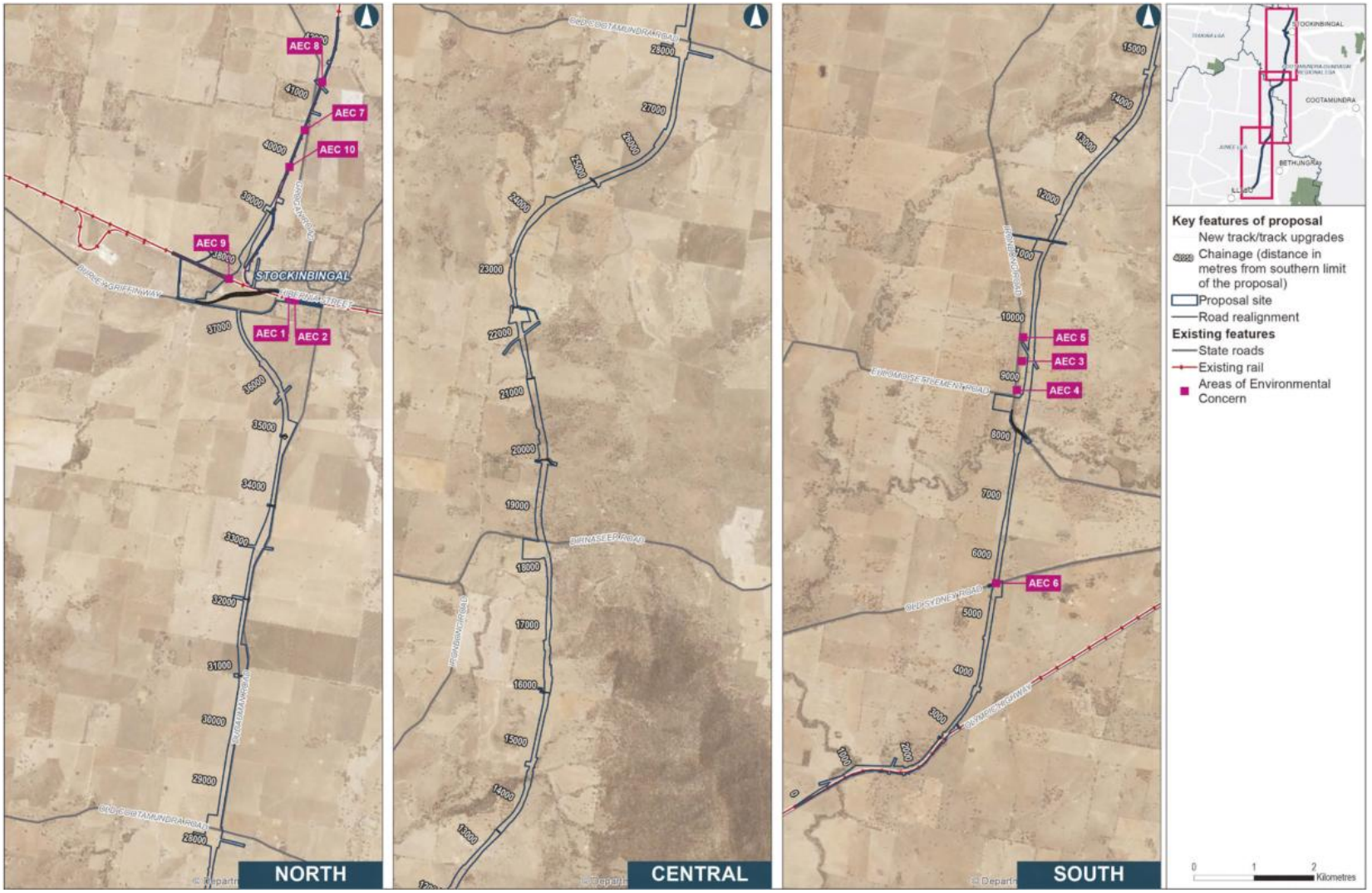

Figure 6-1 Areas of Environmental Concern / Contamination Risk

7 Environmental Aspects and Impacts

7.1 Construction Activities

Key aspects of the Project that could result in potential contaminated land disturbance and impacts include:

- Pre-construction activities including utility adjustment, site access provisions, property adjustments
- Clearing of vegetation
- Initial removal of topsoil
- Construction of site compounds and stockpile areas
- General earthworks particularly during site establishment
- Building and structure demolition (contaminants may include asbestos)
- Construction of site compounds and spoil / mulch and / or equipment stockpile areas
- Temporary access roads during construction
- Bulk earthworks
- Trenching, utilities and drainage works
- Storage of spoil, drilling mud and hazardous materials.
- Dewatering

Further details of Aspects and Impacts are included in the Aspects and Impacts Register provided in Appendix A2 of the CEMP.

7.2 Potential Impacts During Construction

The potential for contaminated land disturbance and impacts will depend on a number of factors. Primarily impacts will be dependent on the nature, extent and magnitude of construction activities and their interaction with known and potential contaminated land sources. Potential impacts attributable to construction might include:

- Potential to disturb contaminated soils during construction and mobilise contamination
- Contamination of soils/ groundwater due to spills and leaks during construction
- Exposure of acid sulphate soils or saline soils and subsequent erosion
- Potential to disturb hazardous materials during the demolition of buildings and structures
- Potential for direct contact exposure by construction workers to soils associated with dumped materials and stockpiles or machine storage and maintenance areas
- Health implications from asbestos
- Health impacts to workers and public and environmental impact from contaminated land
- Inappropriate handling or disposal of potentially contaminated or hazardous excavated materials (including asbestos)
- Exposure of potentially contaminated soils and/or groundwater to sensitive human receptors (construction personnel, Project team, or nearby communities)
- Release of odours from contaminated materials.

- Potential for mixing of contaminated materials with clean materials and subsequent increase of unsuitable/impacted material volumes requiring management

Further potential impacts during construction are identified within the Environmental Assessment Documentation (EIS - Chapter 27). Potential impacts relating to contaminated land hazardous materials are provided in Table 7-1.

Table 7-1 Potential Impacts during construction

Issue	Potential Impact
Soils and Contamination	Disturbance of contaminated soils, including dispersive soils, acid sulphate soils (ASS) or saline soils, resulting in erosion of exposed soil and stockpiled materials, with associated water quality impacts and/or the production and mobilisation of sulfuric acid. Impacts associated with the disturbance of contaminated soils (as discussed in the EIS – Technical Paper 14) include but are not limited to: • direct contact with or ingestion of impacted surface or near surface soils by construction workers during the rail construction or maintenance workers following construction • inhalation of dust, vapour or fibres by construction workers during the rail construction or maintenance workers following construction • inhalation of dust, vapour or fibres by users of the rail or of adjacent land • ingestion of or dermal contact with impacted groundwater if extracted for beneficial use by nearby site users; and • migration of impact into the groundwater or surface water bodies • migration of impact into the surrounding environment such as vegetated areas and surrounding land uses (agricultural areas and residential areas). Contamination associated with any leaks and accidental spills of construction plant and equipment would be considered a pollution event.
Health and Safety – hazardous materials	If inadequately managed, the storage and handling of dangerous goods and hazardous (e.g. fuel, oil, etc.) materials on construction sites could cause leaks and spills, with resultant contamination and health impacts. Public and worker health and safety risks during construction.

The potential for ASS is considered to be low risk for the project. Specifically, the Australian Soil Resource Information System Acid Sulphate Risk map identified that the proposal site is located within an area described as low probability of ASS. However, Technical Paper 14 of the EIS notes that there is the possibility of some inland ASS in dams and inundated areas. Where excavation works are undertaken in dams, inundated areas, cuttings into bedrock and visual indicators of Acid Sulphate Soils are present the unexpected finds protocol will be implemented and testing will be undertaken to confirm the material is Acid Sulphate Soils.

During construction, various materials will be stockpiled on the site for the Project works including:

- Topsoil
- Site won spoil including unsuitable material
- Potential contaminated soil / materials (including Potential ASS) if identified
- Imported quarry materials (including rock, aggregates, recycled materials, recycled bedding sand, lime, gypsum, stabilised sand)
- Imported fill materials for utilisation in the road construction
- Resource recovery order and exempt materials

- Mulch
- Site won wastes and materials (e.g. surplus concrete, asphalt).

Contaminated land and hazardous material risks attributable to the Project are anticipated and have been described in the EIS and within this Plan. Mitigation measures that will be implemented in relation to contaminated land and hazardous material management are included in Section 8.1.

7.3 Cumulative Impacts

The cumulative impacts of adjacent activities and construction areas will be considered alongside the construction activities of the Project to assess their combined effects on contamination risk and impact.

Other construction projects within the vicinity of I2S may occur over the duration of the Project, including road works, utility works, land developments and other activities undertaken by landowners adjacent to the Project (including agricultural activities).

Cumulative works may contribute to contaminated land and hazardous material risk and impact. Effective coordination, collaboration, and information sharing between the Packages and other projects within the vicinity of the works will be required. The Project will identify activities within the area that may contribute to increased contamination risk and impact via regular stakeholder consultation and interface meetings.

If required, the Project will engage with other construction projects to understand construction programming, construction methodologies to be utilised by the other projects and impact mitigation measures the other projects intend on implementing. As such, communication with other projects is the primary management measure.

8 Environmental Mitigation and Management Measures

8.1 Environmental Control Measures

In accordance with the MCoA's, mitigation measures will be implemented with the aim of achieving specific measures and requirements to address contract specifications, CoAs and UMMs in relation to the management of potential impacts from contamination and hazardous materials.

A range of environmental requirements and management measures are identified in the Environmental Assessment Documentation, and relevant IRPL documents. Specific measures and requirements to address contamination impacts are outlined in Table 8-1.

Any contamination resulting from the Project must be assessed and remediated in accordance with relevant legislation, relevant contaminated land management guidelines or guidance developed by the NSW Environmental Protection Authority (EPA).

Table 8-1 Contaminated land and hazardous material mitigation and management measures

Ref	Measure / Requirement	Timing / Frequency	Responsibility	Reference / Source
Contamination / Remediation Process				
CLHM1	A Site Auditor(s) must be engaged before the commencement of contamination investigations until the completion of construction to ensure contamination is appropriately managed. The Site Auditor is to review all documentation relevant to contamination, including previous site audits, and provide a written opinion on the contamination risk and the appropriateness of the reports and any proposed management measures of the site, including (but not limited to): (a) the management and monitoring plans in Conditions C12 and C17, where relevant, including any updates or amendments to those plans; (b) Sampling and Analysis Quality Plan in Condition E154; (c) Detailed Site Investigation Report(s) in Condition E155; (d) Remedial Action Plans in Condition E156; (e) Unexpected Finds Procedure for Contamination in Condition E161; and (f) Post-remediation validation reports. JHG will engage a suitable qualified Site Auditor in accordance with the requirements of this measure.	Prior to Construction	Project Environment and Sustainability Manager NSW EPA accredited Site Auditor	CoA E151
CLHM2	All recommendations made by the Site Auditor must be implemented before commencing work (other than intrusive work conducted as part of detailed site investigations) that could result in any disturbance of any land identified as an area of potential contamination. JHG will engage a suitable qualified Site Auditor in accordance with the requirements of this measure.	Prior to Construction	Project Environment and Sustainability Manager	CoA E152

Ref	Measure / Requirement	Timing / Frequency	Responsibility	Reference / Source
			NSW EPA accredited Site Auditor	
CLHM3	JHG will provide evidence that a Site Auditor has reviewed each of the required plans and reports listed in Condition E151 and has issued an interim audit advice or a relevant Site Audit Statement regarding the appropriateness of those plans or reports must be appended to those plans or reports. ***Note:*** *Any associated Site Auditor report, or interim audit advice or a relevant Site Audit Statement must made publicly available in accordance with Condition B18.*		Project Environment and Sustainability Manager NSW EPA accredited Site Auditor	CoA E153
CLHM4	A Sampling and Analysis Quality Plan (SAQP) must be completed prior to Detailed Site Investigations being undertaken. The SAQP must: (a) be prepared by a suitably qualified and experienced contaminated land consultant(s) in accordance with the relevant guidelines made or approved by the EPA under section 105 of the Contaminated Land Management Act 1997 (CLM Act); (b) be prepared where construction or land disturbing activity is to be undertaken, on sites identified as for medium to high-risk sites as identified in the documents referred to in Condition A1, to ensure that field investigations and analyses will be undertaken in a way that enables the collection and reporting of reliable including (where applicable) the relevant site characterisation requirements of the detailed or targeted site investigations; and (c) inform the development of Detailed Site Investigations.	Prior to construction in an area where DSI is required	Project Environment and Sustainability Manager NSW EPA accredited Site Auditor	CoA E154

Ref	Measure / Requirement	Timing / Frequency	Responsibility	Reference / Source
	JHG will prepare a SAQP prior to the DSI being undertaken in liaison with the appointed Site Auditor and Contaminated Land Consultant.			
CLHM5	JHG will ensure the following: Detailed Site Investigations (DSI) must: (a) be undertaken by a suitably qualified and experienced contaminated land consultant(s); (b) be prepared in accordance with the relevant guidelines made or approved by the EPA under section 105 of the CLM Act; (c) be undertaken before the commencement of work that would result in any disturbance of land identified as moderate to high-risk areas of potential contamination in the relevant documents in Condition A1 or as updated by Condition E152; (d) determine the nature and extent of contamination in soil, groundwater, surface water, ground gases and sediments (where applicable); (e) consider whether contamination has the potential to pose an unacceptable risk to human health or the environment on or off-site; (f) include recommendations for further investigations, remediation and/or management of contamination; (g) be prepared in accordance with the land use criteria applicable to the final land use at the opening of the CSSI; (h) be reviewed by the accredited Site Auditor with the intent of issuing Interim Audit Advice commenting on the adequacy of the report; and (i) be provided to the Planning Secretary upon request, along any associated Site Auditor's Advice.	Prior to construction in an area where DSI is required	Project Environment and Sustainability Manager Certified Environmental Consultant NSW EPA accredited Site Auditor	CoA E155

Ref	Measure / Requirement	Timing / Frequency	Responsibility	Reference / Source
	Notes: 1. *This condition does not prevent disturbance to land that is required to complete the Detailed Site Investigations.* 2. *The intention of this condition is to require Detailed Site Investigations of locations identified as an area of potential contamination to be completed before any form of excavation, including the use of hand tools, exposes soil. This will minimise risks to human health and/or the environment.* 3. *Detailed Site Investigation Reports must made publicly available in accordance with Condition B18.* 4. *Nothing in this condition prevents the preparation of individual Detailed Site Investigation Reports for separate contaminated sites* 5. *Any recommendations made in the Detailed Site Investigation Report for changes to management measures in the CEMP sub-plan(s) must be incorporated into the relevant subplan required by Condition C17, unless otherwise approved by the Planning Secretary.*			
CLHM6	Where remediation is required to make land suitable for the final intended land use, a Remedial Action Plan must: (a) be undertaken by a suitably qualified and experienced contaminated land consultant(s); (b) be prepared in accordance with relevant guidelines made or approved by the EPA under section 105 of the CLM Act; (c) outline remediation options to address the contamination and the final chosen remediation methodology to make the land suitable for the final intended land use;	Prior to remediation	Project Environment and Sustainability Manager Certified Environmental Consultant	CoA E156

Ref	Measure / Requirement	Timing / Frequency	Responsibility	Reference / Source
	(d) be reviewed by the accredited Site Auditor with the intent of issuing interim audit advice commenting on the adequacy of the report; and (e) be provided to the Planning Secretary upon request, along with any associated Site Auditor's advice. **Note:** *Nothing in this condition prevents the preparation of individual Remedial Action Plans for separate contaminated areas within the project footprint.* JHG will implement all remediation as instructed by the Site Auditor and Contaminated Land Consultant in accordance with Remediating Action Plans as required.		NSW EPA accredited Site Auditor	
CLHM7	JHG will ensure that, before commencing remediation, a Section B Site Audit Statement(s) or an interim audit advice must be prepared by a Site Auditor that certifies that the Remedial Action Plan is appropriate and that the site can be made suitable for the proposed use. The Remedial Action Plan must be implemented and any changes to the Remedial Action Plan must be approved in writing by the Site Auditor. **Note:** *Nothing in this condition prevents the Proponent from engaging the Site Auditor to prepare Site Audit Statements for separate contaminated sites.*	Construction	Project Environment and Sustainability Manager Certified Environmental Consultant NSW EPA accredited Site Auditor	CoA E157
CLHM8	JHG will ensure that: For any land identified as an area of moderate or high potential contaminated risk, a SectionA1 Site Audit Statement or A2 Site Audit Statement (accompanied by an Environmental Management Plan) and a Site Audit Report must be prepared which	Construction	Project Environment and Sustainability Manager	CoA E158

Ref	Measure / Requirement	Timing / Frequency	Responsibility	Reference / Source
	states that the contaminated land disturbed by the work has been made suitable for the intended land use. The Site Audit Statement and Site Audit Report must be provided to the relevant council after remediation and no later than before the commencement of operation of the CSSI. **Notes:** 1. *Nothing in this condition prevents the Proponent from obtaining Section A Site Audit Statements for individual parcels of remediated land.* 2. *As required by Condition E153, interim audit advice may be provided prior to a final Site Audit Statement and Site Audit Report.* 3. *Any associated Site Auditor Report, or interim audit advice or a relevant Site Audit Statement must made publicly available in accordance with Condition B18.*		Certified Environmental Consultant NSW EPA accredited Site Auditor	
CLHM9	JHG will ensure that: Contaminated land must not be used for the purpose approved under the terms of this approval until a Section A1 or A2 Site Audit Statement is obtained which states that the land is suitable for that purpose and any conditions on the Section A Site Audit Statement have been complied with.	Construction	Project Environment and Sustainability Manager NSW EPA accredited Site Auditor	CoA E159
CLHM10	JHG will ensure that: Where required, any recommendations to minimise risk to human health or the environment or for the management of contamination arising, the Site Auditor's review,	Construction	Project Environment and Sustainability Manager	CoA E160

Ref	Measure / Requirement	Timing / Frequency	Responsibility	Reference / Source
	advice or audits must be incorporated into the relevant CEMP subplan and implemented.		NSW EPA accredited Site Auditor	
CLHM11	JHG will ensure that: Site investigations would be undertaken by a suitably qualified and experience consultant as defined in Schedule B9 of the National Environment Protection (Assessment of Site Contamination) Measure 2013 (NEPM, 2013) to assess exposure risks to site workers and other receptors as a result of disturbances to the following areas considered to be at a medium-to-low risk of being contaminated: • AEC 1—Three grain silos adjacent to the railway line. • AEC 2—disused broken machinery and parts, potential asbestos containing material • AEC 3—four grain silos and machinery associated with these silos including tractors and multi-feeders within a private property. • AEC 4 – Bethungra Rural Fire Brigade service shed with associated fire suppressants and one water tank. • AEC 5—a locked chemical storage shed and drums containing pesticides • AEC 6—fox baits • AEC 7—stockpile of waste including wood and rubble • AEC 8— the Main South Line (railway line) • AEC 9— crossing the Main South Line (railway line) • AEC 10—The Forbes Line (railway line north of Stockinbingal).	Construction	Project Environment and Sustainability Manager Certified Environmental Consultant NSW EPA accredited Site Auditor	UMM SC-4

Ref	Measure / Requirement	Timing / Frequency	Responsibility	Reference / Source
	The results of the site investigations would be assessed against the criteria contained within the National Environment Protection (Assessment of Site Contamination) Measure 1999 to determine the need for any remediation. Should dewatering of a farm dam occur, a process to determine the potential risks and the assessment of farm dams will be undertaken.			
CLHM12	JHG will prepare a contaminated land and hazardous materials management plan (this Plan). This would be prepared and implemented as part of the CEMP. The plan would include but not be limited to: • further investigations during detailed design would be required to characterise contamination at registered or otherwise identified contaminated sites. Results would be used to further inform CEMP requirements. • a methodology to manage excavation and spoil management with known contaminated sites • capture and management of any surface runoff contaminated by exposure to the contaminated land • measures to ensure the safety of site personnel, environment and local communities during construction • procedures for incident management and managing unexpected contamination finds (an unexpected finds protocol).	Construction	Project Environment and Sustainability Manager	UMM SC-7
Unexpected Discovery of Contamination				
CLHM13	JHG will ensure that: An Unexpected Finds Procedure for Contamination must:	Construction	Project Environment and Sustainability Manager	CoA E161

Ref	Measure / Requirement	Timing / Frequency	Responsibility	Reference / Source
	(a) be prepared prior to the commencement of Work and must be followed should unexpected contamination or asbestos (or suspected contamination) be excavated or otherwise discovered; (b) include details of who will be responsible for implementing the unexpected finds procedure and the roles and responsibilities of all parties involved; (c) be reviewed by the Site Auditor and interim audit advice or a Section B Site Audit Statement provided certifying that the Unexpected Finds Procedure is appropriate; (d) be provided to the Planning Secretary and the EPA upon request with a copy of the interim audit advice or Section B Site Audit Statement attached; and (e) be implemented throughout work.		NSW EPA accredited Site Auditor	
Management of Hazardous Materials				
CLHM14	JHG will ensure that: Hazardous materials surveys would be undertaken during detailed design for all proposed demolition activities.	Prior to Construction	Project Environment and Sustainability Manager Certified Environmental Consultant NSW EPA accredited Site Auditor	UMM SC-2

Ref	Measure / Requirement	Timing / Frequency	Responsibility	Reference / Source
CLHM15	JHG will ensure that: Any hazardous or dangerous waste (e.g. asbestos, chemicals, oils) would be correctly stored (as per SWMS) 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.	Construction	Project Environment and Sustainability Manager WHS Manager	UMM SC-3
CLHM16	JHG will ensure that: Any hazardous materials that are to remain onsite would be surveyed and recorded on a hazardous building material register. A risk assessment would be undertaken and a management plan implemented, including any remediation measures. The register and management plan would be maintained and updated in accordance with the relevant WorkCover codes of practice.	Construction	Project Environment and Sustainability Manager WHS Manager	EIS Appendix E, Table E-1: item 3.
CLHM17	Where required, JHG will ensure that any materials classified as Hazardous Waste would be treated, or an immobilisation approval obtained, in accordance with Part 10 of the Protection of the Environment Operations (Waste) Regulation 2014 prior to offsite disposal.	Construction	Project Environment and Sustainability Manager WHS Manager	EIS Appendix E, Table E-1: item 3.
CLHM18	In the event synthetic material fibres are found on site, JHG will ensure that they would be handled and disposed of in accordance with the National Code of Practice for the Safe Use of Synthetic Mineral Fibres (National Occupational Health and Safety Commission, 1990).	Construction	Project Environment and Sustainability Manager WHS Manager	EIS Appendix E, Table E-1: item 3.
CLHM19	JHG will ensure that:	Construction	Project Environment	EIS Appendix E,

Ref	Measure / Requirement	Timing / Frequency	Responsibility	Reference / Source
	The storage of hazardous materials, and refuelling and maintenance of construction plant and equipment, would be undertaken in clearly marked designated areas (bunded or with drip trays) that are designed to contain spills and leaks. Locations will be > 50 m from a waterway, ephemeral watercourse or wetland		and Sustainability Manager WHS Manager	Table E-1: item 3. Inland Rail CEMF Table 3 Mitigation Measures
CLHM20	JHG will ensure that: The storage of hazardous materials and dangerous goods would be undertaken in accordance with all relevant Australian Standards and regulatory requirements.	Construction	Project Environment and Sustainability Manager WHS Manager	EIS Appendix E, Table E-1: item 3.
CLHM21	JHG will ensure that: Fuels, chemicals and liquids will be appropriately stored, in accordance with AS 1940 and the following requirements: • would be stored on an impervious base that must be able to withstand fuel or chemical spills without degradation • the fuels and chemicals stored must be compatible (i.e. will not react with each other) • the safety data sheets would be consulted • for liquids, a minimum bund volume requirement of 110% of the volume of the largest single stored volume, within the bund • the storage facility would be undercover • all containers would be labelled with the details of the contents • safety data sheets would be available at the site • the storage facility would be inspected for compliance to the above requirements.	Construction	Project Environment and Sustainability Manager WHS Manager	EIS Appendix E, Table E-1: item 3. Inland Rail CEMF Table 3 Mitigation Measures

Ref	Measure / Requirement	Timing / Frequency	Responsibility	Reference / Source
CLHM22	JHG will ensure that: spill kits would be kept at fuel, oil and chemical storage locations. A marine spill kit will be made available near works around water.	Construction	Project Environment and Sustainability Manager WHS Manager	EIS Appendix E, Table E-1: item 3. Inland Rail CEMF Table 3 Mitigation Measures
CLHM23	JHG will ensure that: The removal, handling and disposal of any asbestos containing materials would be undertaken by an appropriately licensed contractor, and transported to an appropriately licenced facility, and in accordance with: • Code of Practice for the Safe Removal of Asbestos 2005 • Code of Practice for the Management and Control of Asbestos in Workplaces 2005.	Construction	Project Environment and Sustainability Manager WHS Manager	EIS Appendix E, Table E-1: item 3. Inland Rail CEMF Table 3 Mitigation Measures
Incident Management				
CLHM24	JHG will ensure that Spill kits, appropriate for the type and volume of hazardous materials stored or in use, would be readily available and accessible to construction workers.	Construction	Project Environment and Sustainability Manager WHS Manager	EIS Appendix E, Table E-1: item 3.
CLHM25	JHG will ensure that All hazardous materials, spills and leaks would be reported to site managers, and actions would be immediately taken to remedy spills and leaks.	Construction	Project Environment and	EIS Appendix E, Table E-1: item 3.

Ref	Measure / Requirement	Timing / Frequency	Responsibility	Reference / Source
			Sustainability Manager WHS Manager	
CLHM26	JHG will provide training in the use of spill kits to all personnel involved in the storage, distribution or use of hazardous materials.	Construction	Project Environment and Sustainability Manager WHS Manager	EIS Appendix E, Table E-1: item 3.
CLHM27	JHG will ensure that Incidents would be managed in accordance with the conditions of approval for the proposal.	Construction	Project Environment and Sustainability Manager WHS Manager	EIS Appendix E, Table E-1: item 3.
CLHM28	JHG will ensure that: An unexpected finds procedure would be prepared and included in the CEMP to assist with the identification, reporting, assessment, management, health and safety implications, remediation, and/or disposal (at an appropriately licensed facility) of any potentially contaminated soil and/or water. This would include specifying appropriate reporting requirements in accordance with the Guidelines to the Duty to Report Contamination under the Contaminated Land Management Act 1997 (EPA, 2015).	Construction	Project Environment and Sustainability Manager	EIS Appendix E, Table E-1: item 3.
CLHM29	JHG will ensure that: In the event that indicators of contamination are encountered during construction (such as odours or visually contaminated materials), work in the affected area would cease	Construction	Project Environment and	EIS Appendix E, Table E-1: item 3.

Ref	Measure / Requirement	Timing / Frequency	Responsibility	Reference / Source
	immediately, and the procedures detailed in the Unexpected Finds Protocol would be implemented. Unexpected soil contamination could include: • unexpected staining or odours • potential asbestos containing materials • underground storage tanks, buried drums or machinery.		Sustainability Manager	
CLHM30	JHG will ensure that the unexpected finds procedure would include the following general approach: • site workers would make the area safe, stop work, and notify the construction supervisor, who would quarantine/fence the area, notify staff onsite and the project manager • the project manager or their representative would notify an appropriately qualified environmental consultant who would carry out an assessment of the nature and extent of the unexpected contamination • remediation would be undertaken as required and as advised by the environmental consultant • works may only recommence at the site after approval has been obtained by the environmental consultant and the project manager • validation of the remediation would be carried out to assess the success of the remediation works. • remediation will be completed to the satisfaction of ARTC and validation sampling results will be provided to ARTC.	Construction	Project Environment and Sustainability Manager	EIS Appendix E, Table E-1: item 3. Inland Rail CEMF Table 3 Mitigation Measures
CLHM31	Awareness training would be provided by JHG for all onsite staff to assist in the identification of potentially contaminated material.	Construction	Project Environment and Sustainability Manager	EIS Appendix E, Table E-1: item 3.

Ref	Measure / Requirement	Timing / Frequency	Responsibility	Reference / Source
			WHS Manager	
General Contamination Management				
CLHM32	JHG will ensure that Machinery would be checked daily to ensure that no oil, fuel or other liquids are leaking.	Construction	Project Environment and Sustainability Manager	EIS Appendix E, Table E-1: item 3.
CLHM33	JHG will ensure that refuelling of plant and equipment would be undertaken within a designated refuelling point, >50 m of a waterway.	Construction	Project Environment and Sustainability Manager	EIS Appendix E, Table E-1: item 3. Inland Rail CEMF Table 3 Mitigation Measures
CLHM34	All fuel trucks will have an appropriately sized spill kit, cut off valves installed on high flow pumps.	Construction	Project Environment and Sustainability Manager	Inland Rail CEMF Table 3 mitigation measures
CLHM35	For any demolition of buildings to be undertaken, a lead paint testing and management plan will be prepared prior to demolition.	Construction	Project Environment and Sustainability Manager	Inland Rail CEMF Table 3 mitigation measures

Note: References assigned to each measure are for the purpose of identifying the mitigation measure only.

8.2 Land condition assessments

Prior to the use of land for locating site facilities, including areas for construction materials storage and stockpiling, a pre-construction land condition assessment will be prepared and submitted to IRPL. The assessment will be undertaken in accordance with relevant guidelines The Pre-construction land condition assessment must be provided to IRPL in accordance with any nominated Hold Points.

The purpose of the pre-construction land condition assessment will be to identify any existing waste or stored materials on the land prior to the area being occupied. Pre-Construction Land Condition Assessments Reports are not site contamination reports, rather they seek to establish and document whether there are any pre-existing wastes on the site prior to the site being occupied by JHG.

When vacating each area of land that has been leased or purchased by IRPL/ ARTC for the use of the Project works, JHG will restore it to equivalent pre-existing conditions (including removing temporary construction fencing), to the satisfaction of IRPL/ARTC.

Where site facilities are no longer required, a post-construction land condition assessment will be prepared and submitted to IRPL. Any identified unauthorised waste attributable to the Project or contamination (in accordance with NEPM guidelines) will be rectified in accordance with the post-construction land condition assessment report and any relevant Inland Rail Specification.

8.2.1 Contaminated land process

The process of contaminated land management can be broadly divided into the following stages:

1. Preliminary site investigation
2. Sampling and analysis quality plan
3. Detailed site investigation
4. Site specific risk assessment and modelling
5. Remedial action plan
6. Site remediation and validation
7. Environmental management plan
8. Ongoing monitoring

Consultants' reports most often address one or more of these stages. Reports may be presented separately or combined (for example preliminary and detailed site investigations can sometimes be combined into a single document).

Each report must stand alone, containing enough information to be readily understood. To stand alone means that the report will include enough information and data to be understood without referring to external reports or studies to which the reader must go on to find the data or linking information on their own. A summary of certain information can be provided, if relevant information has been included in a previous report prepared by a consultant (unless that information has since been superseded). Final documents should be submitted to regulatory authorities to support decision-making relating to contaminated land. Work undertaken by consultants must comply with relevant contaminated land guidelines and policies and provide a robust basis for decisions or actions relating to the land concerned.

The Guidelines for the NSW Site Auditor Scheme and the EPA Contaminated Land Consultant Certification Policy are included in these guidelines.

8.2.2 Role of site auditors and consultants

The introduction of the Guidelines for the NSW Site Auditor Scheme describes the objectives of the scheme and the roles and responsibilities of site auditors and consultants in the site assessment and audit process. Site auditors accredited under the NSW Site Auditor Scheme are often engaged to independently review consultant activities including site assessments, remediation and validation work to ensure the work complies with current regulations and guidelines and meets the standard appropriate for the proposed land use. For example, site investigation reports and remediation proposals prepared by consultants relating to development application proposals may therefore require review and sign off by an accredited site auditor through the issue of a site audit statement.

The EPA does not accredit or certify environmental consultants. The EPA's Contaminated Land Consultant Certification Policy lists the certification schemes recognised by the EPA. This policy requires any consultant reports submitted to the EPA to comply with requirements of the CLM Act, to be prepared, or reviewed and approved, by a consultant certified under one of these schemes. Note the responsibility of a certified consultant for reviewing and approving a report is the same as if they were co-author, either in substance or in a supervising role. Their sign-off of approval should not be subject to disclaimers limiting responsibility for completeness or accuracy.

8.3 Interim Audit Advice and Site Audit Statement

The Approval (SSI-9406) requires the following scope relating to a NSW EPA Accredited Site Auditor (Table 8-2):

Table 8-2 Site Auditor Requirements

Condition	Task	How addressed
E151	A Site Auditor(s) must be engaged before the commencement of contamination investigations until the completion of construction to ensure contamination is appropriately managed. The Site Auditor is to review all documentation relevant to contamination, including previous site audits, and provide a written opinion on the contamination risk and the appropriateness of the reports and any proposed management measures of the site, including (but not limited to): (a) the management and monitoring plans in Conditions C12 and C17, where relevant, including any updates or amendments to those plans; (b) Sampling and Analysis Quality Plan in Condition E154; (c) Detailed Site Investigation Report(s) in Condition E155; (d) Remedial Action Plans in Condition E156; (e) Unexpected Finds Procedure for Contamination in Condition E161; and (f) Post-remediation validation reports.	The Site Auditor –Julie Evans (Envirocene)– has been engaged for the project. The Site Auditor comments have been attached to this CLHMMP.
E153	Evidence that a Site Auditor has reviewed each of the required plans and reports listed in Condition E151 and has issued an interim audit advice or a relevant Site Audit Statement regarding the appropriateness of those plans or reports must be appended to those plans or reports.	A copy of this document was provided to the Site Auditor on 26/06/2025 with comments received on 3/07/2025. These

Condition	Task	How addressed
	***Note**: Any associated Site Auditor report, or interim audit advice or a relevant Site Audit Statement must made publicly available in accordance with Condition B18.*	comments have been incorporated into the plan.
E155	Detailed Site Investigations (DSI) must: (h) be reviewed by the accredited Site Auditor with the intent of issuing Interim Audit Advice commenting on the adequacy of the report.	Site Auditor advice to be included in subsequent updates of this Plan (following DSI completion).
E156	Where remediation is required to make land suitable for the final intended land use, a Remedial Action Plan must: **(a)** be undertaken by a suitably qualified and experienced contaminated land consultant(s); (d) be reviewed by the accredited Site Auditor with the intent of issuing interim audit advice commenting on the adequacy of the report.	RAPs to be reviewed by Site Auditor. Site Auditor advice to be included in subsequent updates of this Plan (if RAP/s is required).
E157	Before commencing remediation, a Section B Site Audit Statement(s) or an interim audit advice must be prepared by a Site Auditor that certifies that the Remedial Action Plan is appropriate and that the site can be made suitable for the proposed use. The Remedial Action Plan must be implemented and any changes to the Remedial Action Plan must be approved in writing by the Site Auditor. ***Note:** Nothing in this condition prevents the Proponent from engaging the Site Auditor to prepare Site Audit Statements for separate contaminated sites.*	Site Auditor advice to be included in subsequent updates of this Plan (if remediation is required).
E161	An Unexpected Finds Procedure for Contamination must: (c) be reviewed by the Site Auditor and interim audit advice or a Section B Site Audit Statement provided certifying that the Unexpected Finds Procedure is appropriate.	A copy of the Unexpected Finds Procedure for Contamination has been prepared and approved for the construction of the project.

8.4 Site Analysis Quality Management Plan

The primary objectives of this SAQP are to:

- Satisfy Consent Condition E154
- Comply with the recommendations of the Contaminated Land Assessment (CLA)
- Inform the development of a Detailed Site Investigation (DSI) for the Project.

The SAQP provides the scope and rationale for the proposed site investigation based on the outcomes of the CLAs understanding of the Project. The SAQP provides details in terms of:

- A summary of the findings of the CLA
- Media to be investigated/sampled
- Investigation locations and depths
- Field screening methods
- QA/QC procedures, including data quality objectives (DQOs) and data quality indicators (DQIs)
- Sampling methods and procedures
- Analysis suites and analysis methods

- Site assessment criteria
- Reporting requirements

SAQP development will be ongoing as construction works develop. Further investigation by the Project contamination specialist will be made to confirm the source and seriousness of the contamination with the relevant notifications and updates being made to the ER, site auditor, IRPL and DPHI throughout the process as required.

8.5 Detailed Site Investigation / Remedial action plan

Areas of contamination that require further investigation, due to the level of potential contamination severity, a detailed site investigation (DSI) may be required. Should a DSI be required then the following process will be undertaken.

If a DSI is required and these site investigations conclude that the specified land is unsuitable for the final intended use, a Remedial Action Plan (RAP) will be prepared. All DSIs and RAPs will be prepared by a suitably qualified Contaminated Land Consultant in accordance with CoA E155 (a) and E166 (a).

The RAP must be prepared in accordance with EPA guidelines on contaminated land management, and must include the following:

- testing requirements for any contaminated material prior to its disposal off site;
- validation plan, which must include the area in the immediate vicinity of (both below and adjacent to) the known contamination;
- implications of the validation results on the waste classification for material that may be excavated in the vicinity of the known contamination

JHG will carry out remediation of the contaminated material, or its removal and disposal, in accordance with the RAP.

Prior to commencing remediation, the RAP and an Interim Audit Advice or a Section B Site Audit Statement from a NSW EPA accredited Site Auditor that certifies that the RAP is appropriate and that the site can be made suitable for the proposed use must be submitted to the Planning Secretary.

Following issue of the Interim Audit Advice or a Section B Site Audit Statement, remediation of the contaminated material, or its removal and disposal, must be carried out in accordance with the RAP. Any changes to the RAP must be agreed to by IRPL and the Site Auditor.

Validation reports will be completed for any sites requiring remediation. These reports will be undertaken in accordance with any relevant guidelines made or approved by the EPA under section 105 of the CLM Act including Consultants Reporting on Contaminated Land (NSW EPA 2020).

The land to which any RAP applies will not be used for the Project until a Section A1 or Section A2 Site Audit Statement has been obtained that states that any conditions on the Section A1 or Section A2 Site Audit Statement have been complied with and the land is suitable for the intended use. A copy of the Site Audit Statement and the associated Site Audit Report will be submitted to the Planning Secretary, and the relevant Council.

Any ongoing management of a contaminated site will be in accordance with an approved environmental management plan.

8.6 Register of Contaminated Sites

JHG will maintain a register of any contaminated sites for the Project or known asbestos and will update the registers in response to any confirmed unexpected finds. The registers will also be used to track the

ongoing management of the sites. The register will act as a live document that can be updated based on the status of findings and investigations associated with contaminated sites identified (including unexpected finds). JHG in consultation with the site auditor will determine sites recommended for inclusion in the register.

8.7 Asbestos Containing Material Management

Instances where ACM may be encountered on site include:

- On a known contaminated site (listed on the register) – in or on soil or present in stockpiles of material. This would not be considered as an unexpected find (if detected during the investigations) and controls would be managed as part of a RAP.
- Identified during a hazmat survey of buildings and structures. As mentioned in Section 8.1 above, any hazardous materials that are to remain onsite would be surveyed and recorded on a hazardous building material register and managed in accordance with this CLHMMP.
- Unexpected finds – any areas of potential fill, stockpiles and historical uncontrolled earthworks and buildings/ structures containing asbestos encountered during construction will be managed in accordance with the Unexpected Finds for Contamination Procedure.
- If encountered, an Activity Method Statement (AMS) will be prepared for the management of materials containing asbestos. This AMS will include details including the requirement for assessment removal by a licensed asbestos contractor and clearance requirements. Management of asbestos will be undertaken with the Project Safety Team. Asbestos removal will be undertaken by suitably qualified personnel and/or subcontractors who are licensed by SafeWork NSW. the 'Asbestos Works Area' and the 'Asbestos Removal Site' will be determined and defined by the nominated Occupational Hygienist (OH) or Licence Asbestos Assessor (LAA). The asbestos areas will delineated and signage installed warning of asbestos removal works.

Prior to removal of asbestos An Asbestos Removal Control Plan (ARCP) is required to be completed in accordance with Work Health and Safety Regulation 2017 (Regulation 464). The ARCP will be prepared prior to undertake any asbestos removal works by the nominated licensed asbestos removalist. The aim of the plan is to outline the specific methods and processes that will be used to ensure the removal is safe and effective.

Prior to the commencement of licensed asbestos removal works, the Occupational Hygienist must provide notification to SafeWork NSW. SafeWork NSW requires a minimum of five days' notice prior to the removal of asbestos, and the notification will include: Name, registered business name, Australian business number (ABN), license number and business contact details of the licensed asbestos removalist.

If leaving asbestos contamination in-situ and development of environmental management plans (for example for encapsulation) are the proposed remediation method outlined in the RAP, consideration will be given at the RAP stage to:

- feasibility of encapsulation; and
- legal enforceability.

8.8 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 terms 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 and offsite disposal (if required).

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.

Prior to reuse or disposal of spoil from known contaminated sites identified in the EIS or areas of unexpected find the spoil will either be assessed as suitable for on-site re-use, should the material meet a soil health investigation level of HIL-D (commercial /Industrial) as defined in Schedule B1 of the National Environmental Protection Measure (NEPM) 2013 or require waste classification in accordance with the NSW EPA Waste classification guidelines (2014), for off-site disposal or some other remediation (as defined in the relevant RAP). 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 E148
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.

Stockpiles of excavated spoil from known contamination areas or areas of unexpected finds are to be managed by implementing the following (note that each step must be undertaken before the next step can occur):

1. Excavated spoil must be stockpiled in accordance with the requirements of the *Managing Urban Stormwater: Soils & Construction (4th edition, Landcom 2004)* commonly referred to as the ‘Blue Book. This includes the installation of erosion and sediment controls.

2. Stockpiles must be labelled, included on a stockpile register, separated (i.e. mixing of stockpiles is not permitted) and covered to avoid erosion and sediment control risks.

3. Excavated spoil is to be tested to determine the classification of the spoil and whether it is suitable for reuse or is to be disposed of as waste

4. If the assessment deems the spoil is unsuitable for onsite reuse, it is to be disposed of in accordance with NSW waste regulations as discussed in the WMP. This includes the appropriate transport of waste and ensuring that licenced transporters and facilities are used in the disposal process.

5. If the assessment deems the spoil is suitable for onsite reuse, the stockpile is to continue to be managed as per items 1 and 2 above until it is required for use. The stockpile will be moved and

managed in accordance with the mitigation included in the CSWMP. Where material from known contamination sites or unexpected find area are to be reused on site this will be documented and an internal hold point raised by the construction team and released by the project Environment Manager.

All stockpiles (contaminated and non-contaminated will be managed in accordance with the CSWMP and WMP to ensure that correct storage and handling requirements are followed. Any unexpected finds will be managed in accordance with Section 8.10 of this CLHMMP.

8.9 Disposal of Waste

Potential spoil disposal and reuse options were assessed in the Environmental Assessment Documentation. The selection of waste disposal and recovery facilities will be dependent on the nature and volume of waste streams generated and the capacity of the receiving facilities at the time of the waste generation.

All waste generated by the Project will be classified in accordance with the EPA's Waste Classification Guidelines, with appropriate records and disposal dockets retained for audit purposes. Waste management will be completed in accordance with the CWMP.

Refer to the CWMP on how to manage potential impacts related to the management and transport of spoil generated during construction of the Project including the locations proposed for spoil disposal and the associated development consents, licenses, exemptions and permits that must be in place in order to correctly store, transport and dispose of these materials.

For disposal of contaminated waste, this will be completed in accordance with the POEO Act and the Protection of the Environment Operations (Waste) Regulation 2014. Where material is proposed to be placed back and re-used within the Project footprint under a Resource Recovery Exemption and Order, all materials will be tracked in line with the record keeping described above. This material will also be managed in accordance with the CWMP.

8.10 Areas of Unexpected Contamination

Where earthworks and ground disturbing activities are required, there is potential to expose unexpected forms of contamination within the surface and subsurface. In such instances, action is required to mitigate potential contaminated soil/material encountered during excavation or construction activities.

An Unexpected Finds Procedure for Contamination has been developed for the Project. This Protocol includes a procedure for unexpected contamination finds and is publicly available (https://inlandrail.com.au/illabo-to-stockinbingal-unexpected-and-incidental-finds-protocol/). The Unexpected Finds Procedure for Contamination has been prepared in accordance with NSW CoA Condition E161 and will be applied to the Construction phase of the Project.

If potentially contaminated material is encountered (such as identification of buried waste, illegal dumping and asbestos), the Unexpected Finds Procedure for Contamination will be followed. Works in the vicinity will be stopped or modified and will not recommence until the material has been analysed and management measures developed.

Further investigation by the Project contamination specialist will be made to confirm the source and seriousness of the contamination with the relevant notifications and updates being made to the ER, site auditor, IRPL and DPHI throughout the process as required.

9 Compliance Management

9.1 Roles and Responsibilities

The Project Team's organisational structure and overall roles and responsibilities are outlined in CEMP. Implementation of this plan is the responsibility of the JHG Project Environment and Sustainability Manager (or delegate). Roles and responsibilities specific to the implementation of environmental controls are detailed in Section 8 of this Plan.

9.2 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 CLHMMP, 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.

9.3 Monitoring and Inspections

Inspections of mitigation measures, and activities which have the potential to increase contamination risk will occur for the duration of the Project. Monitoring will include, but not be limited to weekly environmental inspections. Monitoring and inspection requirements associated with contaminated land and hazardous materials are outlined in Table 9-1.

Table 9-1 Monitoring, Inspection and Reporting Requirements

Type	Frequency	Standards	Location	Reporting	Responsibility

Inspections					
Weekly Environmental Inspection	Weekly	Inspection to include: • Contamination management inspections (where contamination is found) • Inspection of managed bunded areas, erosion and sediment controls • Assessment of suspected and potential contaminated sites	Site-wide	Weekly environmental inspection checklist	Project Environment and Sustainability Manager (or delegate)
Detailed Site Investigation	One-off	NSW EPA (2020) NEPM (2013)	Site-wide	DSI Report	Contaminated Land Consultant
Remediation controls inspection	Ongoing, as required	As required by the Remedial Action Plan	Remediation areas	Site validation reports	Project Environment and Sustainability Manager (or delegate) Contaminated Land Consultant
Monitoring					
Airborne monitoring	Daily	As required by the Remedial Action Plan	Remediation areas	Site validation reports	Project Environment and Sustainability Manager (or delegate) Contaminated Land Consultant
Visual monitoring	Daily	As required by the Remedial Action Plan	Remediation areas	Site validation reports	Project Environment and Sustainability Manager (or delegate) Contaminated Land Consultant
		Open excavations and stockpiled material showing	Site-wide	Unexpected and Incidental Finds	Project Environment and

		evidence of contamination or suspected contamination		Protocol – unexpected contamination finds	Sustainability Manager (or delegate) Foreperson

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

9.4 Hold Points

Hold Points relevant to this Plan are outlined in Table 9-2.

Table 9-2 Hold Point relevant to this Plan

Type	Description	Releasing Authority	Record
Hold Point	Submission of AMS for activities relating to contamination removal / remediation	IRPL 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)	IRPL 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.	IRPL Principal Environment Advisor (or Delegate)	Submission of evidence to IRPL 5 days before commencing works

9.5 Non-Compliance and Non-Conformance

9.5.1 Environmental Non-compliance

An environmental non-compliance is defined as one or more of the following:

- An occurrence, set of circumstances or development that is a breach of the Project Approval
- For auditing purposes, an independent auditor (as required under Conditions A28-A33 of CoA) has determined that one or more specific elements of the conditions or requirements have not been complied with within the scope of the audit (Independent Audit Post Approval Requirements [DPHI, 2020])
- Failure to implement for the duration of construction the CEMP and CEMP sub-plans.

Where environmental non-compliances are identified, they will be communicated to the IRPL Project Environment Team. IRPL will report via Appendix 1 of the CoA (written notification requirements) where required. This will then be recorded in the Project database. An environmental action list will be developed and issued to the relevant Project team personnel for implementation and close out.

Actions will be assigned an implementation priority in a collaborative way by the Project Environment Team based on the environmental risk. Timeframes will be set to ensure any damage incurred is rectified and any chance of recurrence is eliminated as soon as practicable. Following corrective action, the Project Environment Team will close out the non-compliance.

In accordance with Condition A36, IRPL will notify the Secretary of any non-compliance as follows:

- Notification of a non-compliance will take place via the Major Projects Website within seven days of the Project being made aware of the non-compliance
- The notification will identify the CSSI (including the application number) and the name of the CSSI, set out the condition/s that is non-compliant, the nature of the breach; the reason for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.

A non-compliance that has already been notified as an incident does not need be notified as a non-compliance. The ER will include environmental non-compliances within the Environmental Representative Monthly Report.

9.5.2 Non-conformances and Opportunities for Improvement

A non-conformance is the failure to comply with an environmental requirement, standard or procedure, but does not include non-compliances as defined in the Environmental Management Plan Guideline for Infrastructure Projects (Department of Planning, Industry and Environment, 2020).

A non-conformity is an established process under AS/NZS ISO14001 Environmental Management Systems and is defined therein as non-fulfilment of a requirement of the ISO14001 standard or additional EMS requirements that an organisation establishes for itself. This Sub-plan has been prepared in accordance with the JHG EMS. The JHG EMS is certified as complying with the requirements of AS/NZS ISO 14001:2016.

Where non-conformances/improvement opportunities are identified, they will be communicated to the Project Environment Team. This will then be recorded in an environmental action list that will be issued to the relevant Project team personnel for action. Actions will be assigned an implementation priority in a collaborative way by the Project Environment Team based on the environmental risk. Timeframes will be set to ensure any damage incurred is rectified and any chance of recurrence is eliminated as soon as practicable. Following corrective action, the Project Environment Team will close out the non-conformance.

Where a non-conformance/opportunity for improvement is raised as part of an inspection, audit, or an incident or complaint investigation, the inspection, audit, incident, or complaint report will be used to close out the non-conformance/opportunity for improvement.

9.5.3 Corrective and Preventative Actions

Corrective and preventative actions will be appropriate to the significance of the effects of the non-conformances encountered, including the environmental impacts. Information will be captured in the Project's adopted management software, including the nature of non-conformances, any corrective or preventative actions taken, and outcomes.

The Project Environment Team will be responsible for investigating, tracking, communicating, and closing out non-conformances, and implementing corrective and preventative actions. Higher level non-conformances will require the Project Director to review and close out. Actions will be assigned to the relevant supervisory staff for action.

Continuous learning and improvement are integrated into all aspects of the Non-conformance management process to capture, in real time, findings that can be incorporated to improve operational effectiveness. Any member of the Project team, including subcontractors, can contribute and provide suggestion to any required or appropriate preventative actions.

The Project Environment Team will also complete periodic reviews of environmental non-conformance records to identify trends and root causes and suggest preventative actions that are warranted at an organisational level. Trends relating to environmental non-conformances will also be discussed in

regular Project meetings, including with the ER and IRPL, where recurring issues may indicate the need to take preventative actions.

9.5.4 Communicating Corrective and Preventative Actions to staff

The following mechanisms will be used to communicate lessons learned:

- Site improvement notices.
- Pre-start meetings.
- Toolbox talks.
- Project meetings.
- Reporting.

The Project Environment and Sustainability Manager (or delegate) will be responsible for review and approval of material for discussion and presentation of lessons learned. This will ensure that the material is fit-for-purpose, and readily understandable and implementable by our personnel, contributing to continual improvement for the Project, IRPL, and broader industry.

9.5.5 Non-conformance Close-out

Where a non-conformance is detected, a report will be raised in project databases. Non-conformances will be documented with the following information:

- Date raised and by whom.
- Description of the system deficiency (non-conformance).
- Cause and proposed remedy and action to prevent recurrence.
- Reinspection information.
- Date closed and by whom.

Details included in non-conformance reports will be specific to the event that has taken place (e.g. specific reference to the CoA where a non-conformance has been identified). The Project Environment and Sustainability Manager (or delegate) will sign-off on completion of agreed actions to signify close-out.

9.6 Incident Response

9.6.1 Incident Classification

In the event of an environmental incident, the Project will implement classification, notification, and reporting requirements in accordance with JHG's Project Environmental Incident Procedure.

The Project Environment and Sustainability Manager (or delegate) will be responsible for investigating, tracking, communicating, and closing out non-conformances, and implementing corrective and preventative actions. Higher level incidents will require the Project Director to review and close out. The IRPL Environmental Manager, JHG Environmental Team, and the ER, will provide supporting functions as required and agreed (refer to Section 9.1).

In the event of an incident, the Project will undertake notification requirements as detailed in the table below.

Table 9-3 Incident Notification

Report only	Notifiable
• Verbally notify IRPL of incidents immediately, followed by written	• Verbally notify IRPL of incidents immediately, followed by written notification to IRPL and the ER within 24 hours of the incident.

Report only	Notifiable
notification to IRPL and the ER within 24 hours of the incident • If required, IRPL will notify the EPA and relevant authorities immediately	• IRPL to notify the EPA and relevant authorities immediately. • Prepare an incident notification / non-compliance report and submit to IRPL and the ER within 48 hours. • Prepare an investigation report and submit to IRPL and the ER within 7 days.

Environmental incident reports will include lessons learnt and proposed measures to prevent the occurrence of a similar incident. All efforts will be undertaken immediately to avoid and reduce impacts of incidents and suitable controls put in place. Incidents will be closed out as quickly as possible, taking all required action to resolve each environmental incident.

9.6.2 Incident Notification and Reporting

In accordance with CoA A34, the Planning Secretary will be notified via the Major Projects Website immediately after the Proponent becomes aware of an incident. The notification must identify the SSI and set out the location and nature of the incident.

Subsequent written notification will be provided to the Planning Secretary in accordance with CoA A35 as follows:

- In accordance with CoA Appendix A, a written incident notification addressing the requirements set out below must be submitted to the Planning Secretary via the Major Projects website within seven days after the Proponent becomes aware of an incident. Notification is required to be given under this condition even if the Proponent fails to give the notification required under Condition A34 or, having given such notification, subsequently forms the view that an incident has not occurred.

- Written notification of an incident must:
  - (a) identify the CSSI and application number;
  - (b) provide details of the incident (date, time, location, a brief description of what occurred and why it is classified as an incident);
  - (c) identify how the incident was detected;
  - (d) identify when the Proponent became aware of the incident;
  - (e) identify any actual or potential non-compliance with conditions of approval;
  - (f) describe what immediate steps were taken in relation to the incident;
  - (g) identify further action(s) that will be taken in relation to the incident; and
  - (h) identify a project contact for further communication regarding the incident.

- Within 7 days of the date on which the incident occurred or as otherwise agreed to by the Planning Secretary, the Proponent must provide the Planning Secretary and any relevant public authorities (as determined by the Planning Secretary) with a detailed report on the incident addressing all requirements below, and such further reports as may be requested.

- The Incident Report must include:
  - (a) a summary of the incident;

(b) outcomes of an incident investigation, including identification of the cause of the incident;
(c) details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence; and
(d) details of any communication with other stakeholders regarding the incident.

The Project will maintain and provide all records of the environmental incidents and regulatory action to the IRPL Project team.

9.6.2.1 Notification and Reporting to the EPA

IRPL will notify the EPA of any pollution incidents on or around the site via the EPA Environment Line (telephone 131 555) in accordance with Part 5.7 of the POEO Act. The circumstances where this will take place include:

- Where the incident involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial; or
- Where the incident results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding $10,000 (or such other amount as is prescribed by the regulations).

JHG will prepare a Pollution Incident Response Management Plan (PIRMP) prior to construction in accordance with EPL requirements.

9.6.3 Incident Investigation

Where required, due to the severity or ongoing nature of the incident, investigations will be conducted and action plans established to ensure that the event does not occur again. Environmental investigations will include:

- Identification of the cause, extent, and responsibility of the incident.
- Identification and implementation of the necessary corrective action.
- Identification of the personnel responsible for carrying out the corrective action.
- Implementation or modification of controls necessary to avoid a repeat occurrence of the incident.
- Recording of any changes in written procedures required.
- Advising the relevant government agencies if any substantial pollution has occurred.

Information will be captured in site databases. Where there are lessons learnt from the investigation or current procedures are identified as being ineffective, the CEMP will be revised by the Project Environment and Sustainability Manager (or delegate) to include the improved procedures or requirement.

9.7 Auditing

Independent Audits (both internal and external in accordance with the CoAs A28-A33) will be undertaken to assess the effectiveness of environmental controls, compliance with this sub plan, CoA and other relevant approvals, licenses, and guidelines. These audits will be undertaken at planned intervals to provide information on whether the Project:

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

The approach to internal and independent audits, including audit requirements and the auditing schedule and management of environmental incidents are detailed in the CEMP.

In addition to the auditing described above, the site auditor will be responsible the following activities associated with contamination:

- Reviewing all previous audits undertaken for the land and activities associated with the project.
- The review of documentation at their request or specifically those documents listed in condition E151 of the CoA.

9.8 Reporting

Reporting requirements are included in Table 9-4.

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 CLHMMP. Records will be made available to DPHI upon request, within the timeframe nominated in the request.

Table 9-4 Reporting Requirements specific to Contaminated Land and Hazardous Materials

Report	Requirement	Timing	Responsibility	Recipient
Contaminated Land Reporting	Contaminated land reporting must be undertaken to determine the nature and extent of contamination and to assess the potential risk to human health and the environment. Contaminated land reporting may include the following: • PSI • SAQP • DSI • RAP • Validation reporting • Site Auditor Interim Advice • Site Audit Report • Site Audit Statement	Prior to Construction Post remediation	Project Environment and Sustainability Manager (or delegate) Contaminated Land Consultant Site Auditor	IRPL DPHI
Waste Classification	NSW EPA (2014) Waste Classification Guidelines	As required	Project Environment and Sustainability Manager (or delegate) Contaminated Land Consultant	Area Managers Foreperson

Report	Requirement	Timing	Responsibility	Recipient
Unexpected Contamination Finds	Reporting any unexpected contamination finds in accordance with the Unexpected and Incidental Finds Protocol. If required, report to NSW EPA in accordance with the duty to notify / report provisions under the CLM Act.	As required	Area Managers Foreperson	Project Environment and Sustainability Manager (or delegate) Contaminated Land Consultant IRPL
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)	IRPL 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)	IRPL DPHI
Complaint Reporting	Complaint management and reporting in accordance with the Community Communication Strategy (CCS) and Section 9.9.1 of this Plan.	As specified in the CEMP and CCS	Project Environment and Sustainability Manager (or delegate)	IRPL
Hazardous Building Materials Surveys	Hazardous materials surveys would be undertaken during detailed design for all proposed demolition activities. Any hazardous materials identified in the surveys will have a subsequent clearance certificate to confirm that waste has been removed and adequately removed off site.	Detailed design Pre-construction activities	Project Environment and Sustainability Manager (or delegate) Project Safety Manager	Project Environment and Sustainability Manager (or delegate) Project Safety Manager
Hazmat Clearance	Any hazmat materials identified in the surveys will have a subsequent clearance certificate to	Pre-construction activities	Project Environment and Sustainability	Project Environment and Sustainability

Report	Requirement	Timing	Responsibility	Recipient
	confirm that waste has been removed and adequately removed off site.	Construction	Manager (or delegate) Project Safety Manager	Manager (or delegate) Project Safety Manager

9.9 Complaints Management

JHG will maintain a Complaints Register for the Project within a project specific application known as 'Consultation Manager', in accordance with the requirements of CoA B8. Complaints management will also be undertaken in accordance with the Community Communications Strategy (CCS) under CoA B1-B5.

Inland Rail has established a Project email (inlandrailenquiries@artc.com.au) and free call number for Project enquiries and complaints (1800 732 761). Complaints from other agencies will also be monitored via this phone number. The phone number will be available 24/7, and all contact will be acknowledged, and responses provided in accordance with the timeframes outlined below in accordance with the approved CCS.

All complaints received during the I2S project will be actioned, recorded and used as an improvement opportunity for both JHG and IRPL. IRPL has already established a Complaints Management Process in the lead-up to construction commencing on the project. The Complaints Management Process will be maintained for the duration of construction and for a minimum of 12 months following completion of construction of the CSSI.

9.9.1 Complaints Response

In accordance with the IRPL specification – '*Complaints Handling Requirements'*, JHG will respond to complaints using the process shown in Figure.

Records of all complaints received will include the following details as minimum:

- Date and time of the complaint.
- Method by which the complaint was made.
- Personal details of the complainant provided by the complainant or, if no such details were provided, a note to that effect.
- Number of people in the household affected in relation to the complaint
- The nature of the complaint
- Means by which the complaint was addressed and whether resolution was reached, with or without mediation.
- If no action taken, reasons why.

Some complaints are classified as 'specific complaints' due to particular contractual or human resource related requirements. On receipt of a complaint, preliminary assessment will be undertaken to determine if it falls within a 'specific complaints' category.

When entering complaint data into Consultation Manager, consideration will be given to the sensitivity of the issue and ensure that the privacy and confidentiality of affected parties is maintained as per the appropriate privacy laws.

9.9.2 Response Timeframes

Complaints and enquiries will be responded to in the timeframes discussed below.

9.9.2.1 Feedback and Enquiries

- Provide verbal response to telephone enquiries within two hours if received during work hours or during out of hours construction works; for other times, a response will be provided the next business day
- Provide written response to emails and written enquires within 24 hours or on the next business day if received outside of work hours
- Follow-up calls, emails and letters will be made where required to close out the enquiry.

9.9.2.2 Complaints

- Provide verbal response to telephone enquires within two hours if received during work hours or during out of hours construction works, for other times a response will be provide the next business day
- Provide written response to emails and written complaints within 24 hours or on the next business day if received outside work hours
- Where possible, all complaints will be resolved within three business days. Where responses require technical assistance, responses may take up to five business days.

9.9.3 Complaints Register

All complaints will be tracked and recorded in JHG's complaints management system. Upon the request of DPHI, a Complaints Register will be provided, within the timeframe stated in the request.

At the request of the Environment Representative, the details of complaints on the I2S project will be provided in a report format within the agreed time frame.

The Complaints Register provided to the Secretary, Environmental Representative will include the number of complaints received, the number of people affected in relation to complaint, the nature of each complaint, the timeframe in which the complaint was resolved, and if a resolution was reached and how it was reached. The Complaints Register will also note whether a complaint has necessitated independent mediation services

In addition to the information collected in the register, complainants will be advised of the following before, or as soon as practicable after, providing personal information:

- the Complaints Register may be forwarded to Government Agencies such as DPHI to allow them to undertake their regulatory duties
- by providing personal information, the complainant authorises IRPL to provide that information to government agencies
- the supply of personal information by the complainant is voluntary
- the complainant has the right to contact government agencies to access personal information held about them and to correct or amend that information.

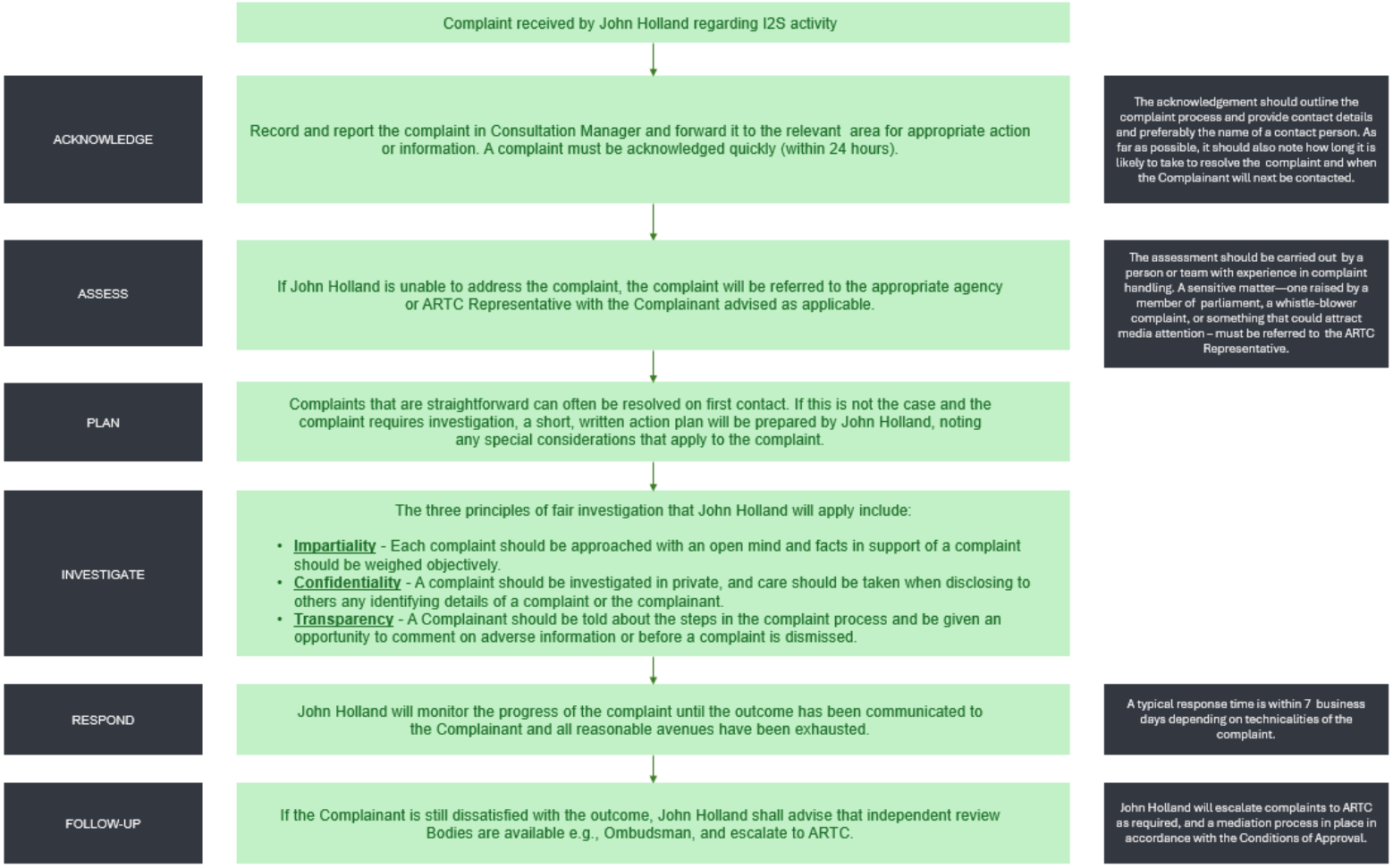

Figure 9-1 Complaints Handling Process

10 Review and Improvement

10.1 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.

10.2 Plan Amendments and Version Control

The processes described in the CEMP may result in the need to update or revise this Plan. Only the Project Environment and Sustainability Manager (or delegate) has the authority to approve changes to the requirements of this Plan. Minor amendments to the Plan may be approved by the ER (at Plannings discretion) in accordance with the CEMP and are to be implemented for the duration of construction and for any longer period set out in the monitoring programs or specified by the Planning Secretary, whichever is the greater. Amendments not considered minor by the ER require approval by the Planning Secretary.

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

Appendix A **– Auditors Comments on the CLHMMP**

CLHMMP					
Item	**Details**	**Audit Comment (Julie Evans 1Jul25)**	**Project response**	**Where addressed**	**Status**
Section 3.3 Acid Sulfate Soils	States management of ASS and soil salinity are discussed in the CSWMP.	This is not actually the case as the SWMP refers back to the CLHMMP for management of ASS. Correct the circular reference and document management of ASS in the CLHMMP. ASS are low risk, although Technical Paper 14 (s4.4.1) notes possibility of some inland ASS in dams and inundated areas. Technical Paper 20 states site-specific testing to assess for the presence of potential acidity should be undertaken where cuttings into underlying bedrock are planned. These matters must be identified and addressed.	ASS reference to the SWMP has been removed from Section 3.3. As requested, the potential impacts associated with ASS have been included in Section 7 of this CLHMMP.	Section 3.3 Section 7	Closed
Section 3.3 EMS Overview	Eighth dot point – refers to remediation of contaminated land using TRA/SWMS.	Any remediation of contaminated land requires preparation of a Remediation Action Plan (RAP). This will include specific OH&S matters relating to the contamination to be remediated.	This statement has been included in the section that discusses the TRA.	Section 3.4	Closed
Section 7.2 Table 7-1	Disturbance of soils, including dispersive soils, ASS or saline soils……	It is my understanding that dispersive soils and salinity is addressed in the SWMP. This paragraph should identify potential impacts from disturbance of contaminated soils. NOTE: In terms of my site audit, contamination associated with leaks and spills during the construction phase would be considered an act of pollution – not contamination.	This section has been updated to reflect the auditor's advice. This includes more details about impacts associated with contamination impacts and providing more clarity on spill and leak pollution.	Section 7	Closed

CLHMMP Table 8.1 Mitigation & Management Measures	CLHM8: For any land identified as an area of moderate or high potential contamination risk…..	Revise wording of this measure to reflect new wording issued by DPHI i.e removal of wording relating to *potential contamination risk….* and replace with contaminated.	This has been updated throughout the document. Contamination has been replaced with contaminated	Table 8-1	Closed
	Management of Hazardous Materials: CLMH16: risk assessment and management plan	I assume this relates to removal and clearance of hazardous building materials prior to demolition. Please clarify.	This has been updated to include reference to hazardous building materials as per the EIS where this information was derived from.	Table 8-1	Closed
	CLHMMP11:	Missed AEC 4 from list. Also add that a program of assessment of farm dam walls and sediment will be undertaken, to be triggered by a dam dewatering event.	AEC4 has now been included, note that this is not in the mitigation measures list included in Chapter 27 of the EIS. Noted, the need for a process to determine risks and assessment for dewatering of dams included.	Section 8.1	Closed
Section 8.6	Register of Contaminated Sites will be prepared and updated.	How will a site find its way onto the register? Recommendations for the inclusion of a site on the register can be made as part of the investigation reporting, which will be subject to review and approval by the auditor. What about unexpected finds?	Have updated this section to include more details about this.	Section 8.6	Closed
Section 8.7	Asbestos Containing Material Management	This section should refer to three separate instances where asbestos may be encountered: 1. On a contaminated site (listed on register?) – in or on soil or present in stockpiles of material. This would not be considered as an unexpected find (if detected during the investigations)	Section 8.7 has been updated to include the instances of ACM occurrence and some more detail around the management of ACM. There are no requirements in the conditions or mitigation measures for the	Section 8.7	Closed

		and controls would be managed as part of a RAP. 2. identified during hazmat survey of buildings and structures – would this be managed by a hazardous building removal control plan or similar? 3. unexpected finds – what will be developed to manage asbestos. Refer to CLMH23. In the text (section 8.7) please include general requirements for an asbestos removal control plan, and licensed asbestos contractors, clearance, hold points. This would need to be provided in addition to the requirement for an AMS. I am not aware of an asbestos management plan, but this may exist and could include the required information – if this is the case add a reference to the asbestos management plan for these matters.	preparation of an asbestos management plan, or control plan, however all works that relate to ACM and the management of ACM will be managed in accordance with this CLHMMP.		
Section 8.8	Stockpile Material Management: Refer to CLHM12 which requires a methodology to manage excavation and spoil management within known contaminated sites.	This section needs to be re-written to ensure that it addresses the requirements of CLMH12 i.e. methodology for management of spoil from contaminated sites and unexpected finds. General management of spoil from the project site is dealt with in other plans (i.e. SWMP & WMP). The use of the term "*contaminated waste*" is confusing and must be deleted – spoil from a contaminated site or unexpected find will either be assessed as suitable for on-site re-use or require waste classification for off-site disposal or some other remediation (as defined in the relevant RAP). If you propose to re-use excavated spoil from a contaminated site (or unexpected find) describe a process by which spoil may be	Reference to contaminated waste has been replaced by recommended text provided. Section has been updated to include a methodology for stockpile management.	Section 8.8	Closed

		assessed as suitable for re-use on-site and include a hold point to ensure this is undertaken. I would expect that all spoil generated from a contaminated site or unexpected find is segregated from other site won material until it has been assessed as suitable for re-use or classified as a waste. Add in specific requirements for managing stockpiles of spoil generated from contaminated sites and unexpected finds (such as covering, preventing run-off etc.).			
-	CLHM12 requires capture and management of any surface runoff contaminated by exposure to the contaminated land.	This does not appear to be addressed in the CLHMMP. Please add.	The plan has been updated to include the consideration of impacts including impacts to the surrounding environment in Section 7. Section 8.8 now includes reference to the blue book for the management of ERSED / runoff.	Section 7 Section 8.8	Closed
Section 9.8	Reporting: The CLHMMP does not include details of hazardous materials surveys for building and structures to be demolished. No details of reporting of removal and clearance of hazmat prior to demolition.	Include an additional row to address **hazardous building materials surveys** and **Hazmat Clearance.** (Refer to CLMH16 comments)	Table has been updated to include these requirements.	Section 9.8	Closed.