JOHN HOLLAND

INLAND RAIL
ILLABO TO STOCKINBINGAL PROJECT

Staging Report

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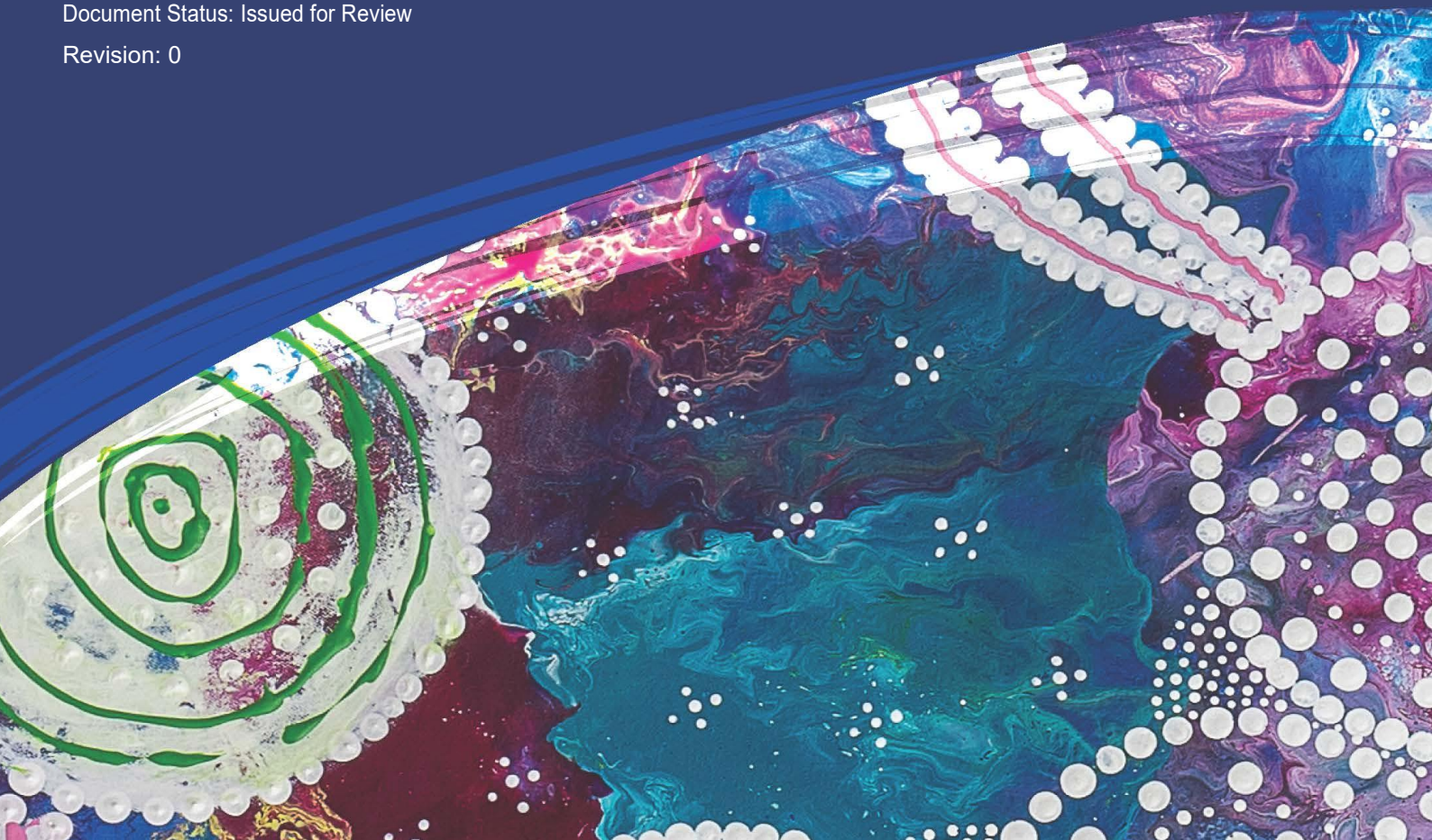

Document Control

Document Title	Staging Report		
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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.).

Revision History

REVISION	DATE ISSUED	DESCRIPTION
A	18/08/2025	Issued for Review
B	25/08/2025	ER / IRPL commented version update
C	27/08/2025	Additional ER / IRPL commented version update
D	28/08/2025	Additional ER / IRPL commented version update
0	29/08/2025	Issued for Use

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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1.3 Terms and Abbreviations

Term/Abbreviation	Definition
AEC	Areas of Environmental Concern
ARTC	Australian Rail Track Corporation
AMS	Activity Method Statement
Ancillary Facility	A temporary facility for construction of the CSSI including office and amenities compound, construction compound, material crushing and screening plant, batching plant, materials storage compound, maintenance workshop, testing laboratory, car parking facilities, a site used for assembly of infrastructure and a fixed material stockpile area.
A2P	Albury to Parkes
CCS	Community Communication Strategy
CH	Chainage
CoA	The Minister's Conditions of Approval for the CSSI
Construction	Includes work required to construct the CSSI as defined in the documents listed in Condition A1, including commissioning trials of equipment and temporary use of any part of the CSSI, but excluding low impact work which is carried out or completed prior to approval of the CEMP
CPESC	Certified Professional in Erosion and Sediment Control
CSSI	Critical State Significant Infrastructure, as generally described in Schedule 1 (of the Conditions of Approval), the carrying out of which is approved under the terms of the Conditions of Approval.
DPHI	Department of Planning, Housing and Infrastructure
EIS	The Environmental Impact Statement referred to in Condition A1 submitted to the Planning Secretary seeking approval to carry out the CSSI described in it, as revised if required by the Planning Secretary under the EP&A Act, and including any additional information provided by the Proponent in support of the application for approval of the CSSI
Environment	Includes all aspects of the surroundings of humans, whether affecting any human as an individual or in his or her social groupings.
EP&A Act	*Environmental Planning and Assessment Act 1979*
EPA	NSW Environment Protection Authority
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)
EPL	*Environment Protection Licence under the Protection of the Environment Operations Act 1997 (NSW)*
ER	Environmental Representative for the CSSI as approved by the Planning Secretary
ERSED	Erosion and sediment
ESCPs	Erosion and Sediment Control Plans
EWMS	Environmental Work Method Statement
EWP	Elevated Work Platform
FMP	Farm Management Plans
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

Term/Abbreviation	Definition
JHG	John Holland Group
km	kilometres
LAA	Land Access Agreement
LGA	Local Government Area
LLS	Local Land Services
LV	Light Vehicle
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).
NBN	National Broadband Network
NML	Noise Management Level
Non-compliance	An occurrence, set of circumstances or development that is a breach of this approval.
NSW	New South Wales
NV	Native Vegetation
OOHW	Out-of-Hours Work
OOHWP	Out-of-Hours Work Protocol
Planning Secretary	Planning Secretary of the Department (or nominee, whether nominated before or after the date on which this approval was granted).
POEO Act	*Protection of the Environment Operations Act 1997 (NSW)*
RMMs	Revised Mitigation Measures
ROL	Road Occupancy Licence
SEP	Site Environmental Plan
SES	NSW State Emergency Services
TEC	Threatened Ecological Community
TfNSW	Transport for NSW
The 'Blue Book'	*Managing Urban Stormwater – Guidelines published by Landcom, 2004* and used for industry best practice erosion and sediment control planning and management
TRA	Task Risk Assessment
Work	Any physical work for the purpose of the CSSI including construction and low impact work but not including operational maintenance work
WRA	Workplace Risk Assessment

2 Introduction

2.1 Planning Overview

Inland Rail is an approximate 1,600 kilometres (km) freight rail network that will connect Melbourne and Brisbane via regional Victoria, New South Wales (NSW) and Queensland. Comprising twelve sections, a staged approach is being undertaken to deliver Inland Rail.

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

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

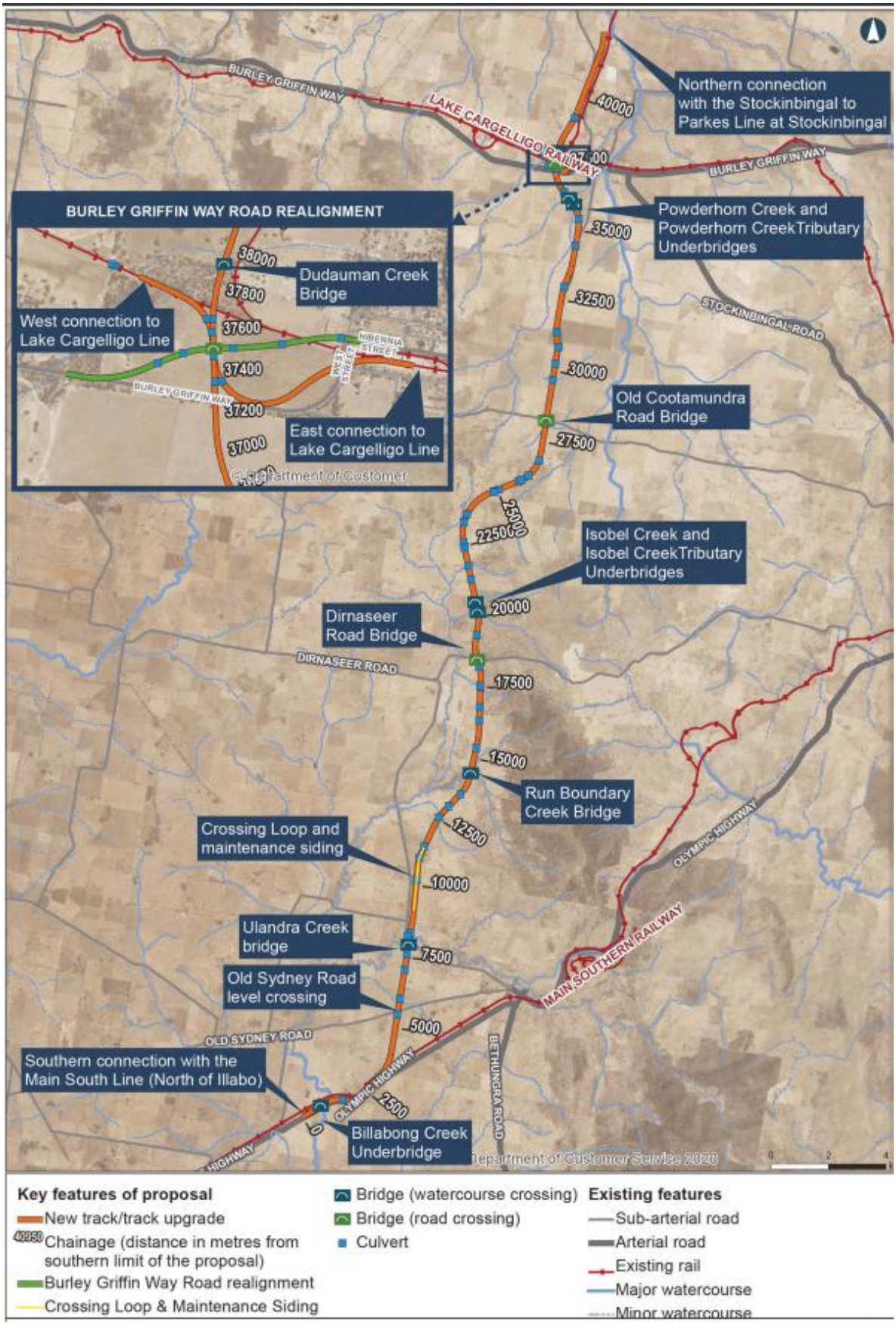
The Project comprises a new rail corridor that would connect Illabo to Stockinbingal. The alignment branches out from the existing rail line north-east of Illabo and travels north to join the Stockinbingal–Parkes Line west of Stockinbingal. The route will travel primarily through undeveloped land predominantly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

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

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

The Project will also include upgrades to approximately 3 km of existing track associated with tie-in works and construction of an additional 1.7 km of new track to maintain the existing rail network connections. Road upgrade works will also be undertaken to re-align approximately 1.4 km of Burley Griffin Way to

provide a road-over-rail bridge at Stockinbingal. Re-alignment of Ironbong Road will also be completed to allow for safe sight lines. A temporary workforce accommodation camp will also be constructed to house the workforce for the duration of works. Project features are shown on Figure 2-1.



(Source: Illabo to Stockinbingal - Environmental Impact Statement, 2022)

Figure 2-1 Key Project Features

2.2 Planning Context

The Minister declared the project Critical State Significant Infrastructure (CSSI) under Division 5.2 of the Environmental Planning and Assessment Act 1979 (NSW) (EP&A Act). The project is subject to assessment and approval by the NSW Minister for Planning. An environmental impact statement (EIS) was prepared to support ARTC's application for approval of the project in accordance with the requirements of the EP&A Act and the environmental assessment requirements (the SEARs) of the Secretary of the (then) NSW Department of Planning, Industry and Environment (now the Department of Planning, Housing and Infrastructure (DPHI)). The EIS was placed on public exhibition from 14 September 2022 to 26 October 2022. During the exhibition period, interested stakeholders and members of the community were able to review the EIS online, participate in consultation and engagement activities held by ARTC, and make a written submission to the DPHI for consideration in its assessment of the project. The project was assessed as part of the EIS and the Response to Submissions Report (EIS RtS). Together these documents are referred to as the Environmental Approvals Documentation (EAD). Approval for project under the EP&A Act was granted by the Minister for Planning on 4 September 2024.

2.3 Purpose of this Staging Report

The purpose of this Staging Report is to provide an outline of the proposed staging of works for the project. It guides the reader through each stage of the project to understand how and when the mitigation measures will be addressed throughout construction of the project.

This Staging Report has been prepared to allow Inland Rail to construct the project in stages. It:

- Describes the construction stages, including details of works and activities to be carried out in each stage and general timing.
- Identifies how the mitigation measures will be complied with across and between each of the stages of the project.
- Identifies how cumulative impacts arising from the proposed staging will be managed.

This Staging Report has been prepared to satisfy the requirements of the Minister's Condition of Approval (CoA) A11 to A16 where construction of the project is staged. The CoAs require the Staging Report to describe construction and operational staging, however pre-construction works have been included in this Staging Report for clarity and completeness.

Operational Staging is not proposed for the project. The detailed design phase of the project is generally carried out prior to construction commencing with some design work continuing during construction. As CoAs A11 to A16 do not require discussion of detailed design in the Staging Report, this phase has not been considered further in this report.

Staging Report requirements, and where they are addressed in this report, are listed in Table 2-1.

Table 2-1 Staging Report CSSI 9406 CoA

CoA No.	Condition Requirements	How Addressed
A11	The CSSI may be constructed and operated in stages (including but not limited to temporal, location or activity-based staging). Where staged construction or operation is proposed, a Staging Report (for either or both construction and operation as the case requires) must be prepared and submitted to the Planning Secretary for approval. The Staging Report must be submitted to the Planning Secretary no later than one (1) month prior to the commencement of construction of the first of the proposed stages of construction (or if only staged operation is proposed, one (1) month prior to the commencement of operation of the first of the proposed stages of operation).	This Report Section 2.5
A12	(a) if staged construction is proposed, set out how the construction of the whole of the CSSI will be staged, including details of work and other activities to be carried out in each stage and the general timing of when construction of each stage will commence and finish;	Section 3
	(b) if staged operation is proposed, set out how the operation of the whole of the CSSI will be staged, including general details of work and other activities to be carried out in each stage and the general timing of when operation of each stage will commence and finish (if relevant);	N/A
	(c) specify how compliance conditions will be achieved across and between each of the stages of the CSSI; and	Section 5
	(d) set out mechanisms for managing any cumulative impacts arising from the proposed staging.	Section 3.5
A13	Where staging is proposed, the CSSI must be staged in accordance with the Staging Report, as approved by the Planning Secretary.	This Report
A14	Where staging is proposed, the terms of this approval that apply or are relevant to the work or activities to be carried out in a specific stage must be complied with at the relevant time for that stage.	Noted
A15	Where changes are proposed to the staging of construction or operation, a revised Staging Report must be prepared and submitted to the Planning Secretary for approval no later than one (1) month prior to the proposed change in the staging	Section 2.6
A16	Should a Construction Environmental Management Framework (CEMF) be submitted for approval under Condition C1, the Staging Report must be submitted with the CEMF, i.e. no later than one month before the lodgement of any CEMP, CEMP sub plan or CMP to the Planning Secretary for approval.	Risk Assessment process and outcomes is provided in Section4. CEMF information relevant to this report is also provided in Section 2.7.

CoA No.	Condition Requirements	How Addressed
C1	A Construction Environmental Management Framework (CEMF) may be prepared to facilitate the preparation and approval of construction environmental management and monitoring plans required under Part C of this approval. The CEMF must: (a) identify the CEMPs, CEMP sub plans and/or CMPs required for each stage of construction consistent with the Staging Report prepared under Condition A11;	This Plan Section 5
	(b) document the proposed structure of the CEMPs, CEMP Sub-plans and CMPs for the relevant stage of construction;	Section 5.2
	(c) provide, by way of a Risk Matrix, an assessment of the predicted level of environmental and social risk, including the potential level of community concerns posed by component aspects of each construction stage. This must use a process consistent with AS/NZS ISO 31000: 2018; Risk Management – Guidelines; and	Appendix A
	(d) nominate the consultation and endorsement level for each CEMP, CEMP Sub-plan and CMP required for each construction stage. The endorsement level being one of the following: (i) Low Risk Stage – self endorsed and consultation with state agency and council stakeholders is not mandatory. (ii) Medium Risk Stage – endorsed by the ER and consultation with state agency and council stakeholders required; and (iii) High Risk Stage– endorsed by the Planning Secretary and consultation with state agency and council stakeholders required.	Section 5.2 Appendix A
	(e) For a Low-Risk Stage(s) the requirements of Part C of this approval do not apply. In these circumstances, a CEMP, CEMP sub-pan and CMP, may be substituted with an alternate process such as a Construction Work Method Statement (CWMS) or equivalent.	Noted An Environmental Work Method Statement (EWMS) for Stage 1 activities is to be prepared separately to this document
	(f) The CEMF must be endorsed by the ER and then submitted no later than one month before the lodgement of any CEMP, CEMP sub plan or CMP to the Planning Secretary for approval. Notes: 1. The Planning Secretary may vary the CEMF in relation to the endorsement authority for the CEMPs, CEMP Sub-plans and CMPs. 2. The intent is for staging and not activities within a stage.	This Report
C2	The approved CEMF must be implemented for the duration of construction.	Noted

CoA No.	Condition Requirements	How Addressed
C3	Where changes are proposed to the staging of construction and these affect an approved CEMF, a revised CEMF must be prepared, endorsed by the ER and submitted to the Planning Secretary for approval no later than one month prior to the proposed change in the staging.	Noted

2.4 Staging Rationale

The rationale for staging the project is based on the following key considerations:

- Ensuring the project utilises available rail possessions, specifically the major scheduled possession in September 2025. This will result in a de-risked overall construction program by allowing necessary contingency for wet weather events or other aspects beyond the project's control that may impact on future rail possessions and provide a separate interface between I2S construction activities at Illabo and the ongoing operation of the Main Southern railway line that will not impede on these operations until connection of the I2S line in 2027;
- Ensuring pre-construction activities are carried out ahead of main construction activities where possible, minimising disruption on community and freight rail operations whilst de-risking the overall construction program.

2.5 Staging Report Submission Requirements

In accordance with CoA A11, the Staging Report must be endorsed by the Environmental Representative (ER) and then submitted to the Planning Secretary (for information) no later than one (1) month before the commencement of construction of the first of the proposed stages of construction (or if only staged operation is proposed, one (1) month before the commencement of operation of the first of the proposed stages of operation).

The project will be staged in accordance with this report and will be submitted for information to the Planning Secretary in accordance with CoA A11.

2.6 Revision of this Staging Report

In accordance with CoA A15, where changes are proposed to the staging of construction, a revised Staging Report must be prepared and endorsed by the ER before submission to the Planning Secretary for information no later than one (1) month before the proposed change in the staging.

The project will be staged in accordance with this report, including any revisions, and will be submitted for information to the Planning Secretary in accordance with CoA A11.

2.7 Construction Environmental Management Framework

Elements of the CEMF CoAs have been utilised to determine the potential construction environmental management plans required for the two stages of construction.

In accordance with condition C1, JHG has developed this Staging Report to include CEMF requirements. A risk assessment was carried out (refer to Appendix A) and this determined all environmental aspects for Stage 1 to be of low risk and thus able to be managed under an EWMS as per C1.

Further detail on the Risk Assessment completed to satisfy CEMF condition C1(c) is provided in Section 4 and completed risk matrix (with details on relevant environmental controls) is provided in Appendix A. Further information of the risk ranking and subsequent level of environmental management documentation required, per stage of construction is provided in Section 5.2.

3 Project Staging

A summary of the proposed work activities of each stage of the project is provided below.

3.1 Pre Construction

There are a number of activities that can be carried out prior to construction. These activities include low impact works (including site establishment). The CoA do not require that these activities be described in the Staging Report.

Where low impact work has already commenced, this is considered to remain as low impact work and is managed in accordance with the framework under which it commenced. Furthermore, following the completion of Stage 1 activities listed below, until such time as CEMP approval has been received for construction commencement for Stage 2, the project will continue to complete Low Impact Works activities until Construction commencement for Stage 2 is received.

3.2 Stage 1 – September 2025 Rail Possession

Construction activities for Stage 1 will comprise a limited scope of works to be completed during a rail possession for the period 9 to 19 September 2025, as per details provided in **Table 3-1**. These works include:

- preparation activities for the rail possession (9 to 12 September 2025),
- the rail possession activities themselves (13 to 15 September 2025), and
- post-possession activities (15 to 19 September 2025).

Table 3-1 provides the list of activities will be undertaken as part of the Stage 1 of the I2S project "the Project" (CSSI 9406). Table 3-1 details a description of the work activity, its location and proposed access along with other relevant information.

Table 3-1 Details of the proposed works

Details of Proposed Works	
Purpose of the proposed works	The purpose of the proposed works for Stage 1 is to conduct reconditioning and ballast raising on the existing Main South Line (MSL) and CSR works which will support the delivery of the Project and to ensure uninterrupted operations of the MSL throughout the construction period. The work will be carried out during a pre-planned railway possession, minimising the need for additional future possessions and reducing the overall impact on the community. Further detail is provided below.
Description of the proposed works	A description and breakdown of the key activities and construction methodology is provided as follows. **Pre Possession Activities** • 9th of September to 12th of September (Monday to Friday) – Standard Day Shift Hours ○ Possession Plant Mobilisation ○ Floating in approx. thirty items of plant – Excavators, dump trucks, loaders etc ○ 2x 8T HR Excavator ○ 1x 50T Excavator ○ 2x 35T Excavator ○ 4x FELS (L120s) ○ 3x Dozers (D8) ○ 2x Drotts ○ 2x Positracks ○ 4x HR Dumper ○ 4x 30T Dumper ○ 2x Watercart ○ 3x 16T Smooth Rollers ○ 1x 16T Padfoot ○ 20x Lighting Towers **Possession Activities** – Including overnight works, 12th of September to 15th September.

Details of Proposed Works	
	1. **Site mobilisation and setup** – Once JHG has possession of the railway line, appropriate railway safety measures will be implemented including signage, demarcation of the possession work area, detonators etc. Pre-starts will be undertaken and plant, equipment will be mobile to site. Dilapidation surveys of the existing track and associated infrastructure will also be undertaken. 2. **Service locating** – Existing services within the work areas will be located using a sucker/vacuum truck or other appropriate means. **3. Track reconditioning work** – Track reconditioning works between chainage 0 and 760 (or MSL chainage of 465.260km to 464.500km, the design maximum lift is 240mm at 464.840km at UP MAIN) is required which will consist of the following. • Cut and remove the rail and then removal of the concrete sleepers. • Excavate approximately 1.2m from top of rail (TOF), transport and stockpile ballast, and fill material. • Once desired subgrade level is reached & proof rolled (around -1.2m from TOR) is reached, placement and compaction of 250mm of structural fill and 200mm capping. • Placement and compaction of bottom ballast. • Reinstatement of the existing concrete sleepers and rail and followed by free welding. • Placement of the top ballast – place top ballast the shoulder level with the top of sleeper, shoulder width shall be 300mm, followed by tamping and regulating and de-stressing. • Track certifications and handback of work area following completion of the possession. **4. Combined Services Route (CSR)** – several underline crossings (ULX), under road crossings (URX) and longitudinal trenches will be constructed at the following chainages. It is anticipated that there will be one work crew who will progressively undertake the following works. • ULX at chainage 464.260km • ULX at chainage 464.840km • ULX at chainage 466.159km • URX at chainage 466.159km • ULX at chainage 468.140km • CSR longitudinal trench between chainage 467.600km to 468.140km **5. Track signalling works –** Miscellaneous track signalling maintenance works will also be undertaken at both the track reconditioning and ULX work locations. 6. **Use of the Ancillary Facility (AF)** – The AF adjacent to the track reconditioning work area between chainage 0 and 760 (or MSL chainage of 465.260km to 464.500km) shown in Figure 3-1 and Figure 3-5 will be utilised throughout the possession. It's noted that approval for the establishment and use of this AF is subject to a separate AF application and endorsement process (further details in Section 3.2.1). 7. Any other minor miscellaneous activities associated with the possession works. HV movements during the possession will be primarily inside the proposed construction zones, HV's will utilise and distribute the materials delivered during prepossession activities from stockpile and spoil locations to the work front with the existing rail corridor. • <u>Saturday: (HV movements where the track recon works are taking place)</u> • 2x 8T HR Excavator • 1x 50T Excavator • 2x 35T Excavator • 4x FELS (L120s) • 3x Dozers (D8) • 2x Drotts • 2x Positracks • 4x HR Dumper • 4x 30T Dumper • 2x Watercart • <u>Sunday: (HV movements where the track recon works are)</u> • 2x 8T HR Excavator • 1x 50T Excavator • 2x 35T Excavator • 2x FELS (L120s) • 3x Dozers (D8)

Details of Proposed Works	
	• 2x Drotts • 4x HR Dumper • 4x 30T Dumper • 2x Watercart • 1x Padfoot • 3x Rollers • Monday: (HV movements where the track recon works are) • 2x 8T HR Excavator • 2x FELs • 1x Watercart **After Possession Activities** • 15th September to 19th September (Monday to Friday) – Standard Day Shift Hours ○ Possession Plant Demob ▪ Demob. Thirty items of plant – Excavators, dump trucks, loaders etc ▪ 2x 8T HR Excavator ▪ 1x 50T Excavator ▪ 2x 35T Excavator ▪ 4x FELS (L120s) ▪ 3x Dozers (D8) ▪ 2x Drotts ▪ 2x Positracks ▪ 4x HR Dumper ▪ 4x 30T Dumper ▪ 2x Watercart ▪ 3x 16T Smooth Rollers ▪ 1x 16T Padfoot ▪ 20x Lighting Towers ○ Continuation of CSR longitudinal trench between chainage 467.600km to 468.140km
Location	The location of the works is within the existing ARTC railway corridor between chainage 464.260km to 468.140km. Refer to Figure 3-1 to Figure 3-5 for further details. The following summarises the relevant environmental constraints associated with the proposed works. Refer to Section 5.2 for further details. • All works, including access points and travel routes, are located within the approved Construction Impact Zone (CIZ). • Works are not located in areas mapped as Native Vegetation (NV) and Threatened Ecological Community (TEC). An existing access track which will be used for site access is located within area mapped as NV, due to the access track being located under the tree canopy. • Works are not located within or adjacent to any waterways. The nearest waterway is Billabong Creek which is approximately 40m away from the work location. Works may encroach within 40 m of highest bank of the creek and will be managed to not impact upon the creek via EWMS for soil and water. • Works are located within Indigenous Survey Zones (ISV), an existing access track which will be used for site access is located within Zone 1 (Low Density Scatter) (AHIMS # 50-05-0280); however appropriate clearances have been obtained prior to works commencing. The access track is also immediately adjacent to two artefact sites described as ARTC-2 (AHIMS # 50-05-0266) and one artefact site described as ARTC-1 (AHIMS # 50-5-0266). • There are no registered non-indigenous heritage items within or in the vicinity of the works. The Billabong Creek Rail Underbridge, which has potential heritage significance is located approximately 30m from the work area. • The nearest noise or otherwise potentially impacted sensitive receiver to the track reconditioning work is located approximately 400m from the works. There are no other residents within 500m of the work area. The nearest receiver to the CSR works is approximately 50m away. • The closest proposed works by adjoining CSSI project during the Stage 1 rail possession will commence at chainage 468.500 over 360m from the Stage 1 works, there are no anticipated cumulative impacts

Details of Proposed Works	
Proposed dates of works:	Prepossession activities will commence 9 September 2025 until 12 September 2025. Possession Works will occur during the Week 11 possession between Saturday 13 September 2025 and Monday 15 September 2025. After possession demobilisation activities will commence 16 September and be completed by 19 September 2025
Work Hours	The approved working hours are: • Monday to Friday: 7am to 6pm • Saturday: 7am to 6pm • Sunday and public holidays: no work Works included in this assessment will be undertaken during AND outside standard construction hours as specified under CoA E1. Stage 1: Prepossession activities will be undertaken during standard construction hours as specified in CoA E1. Possession works will be undertaken during a line-wide possession to minimise the need for additional project-specific possessions in the future, which will reduce the overall impact to sensitive receivers and railway operations. Works will be undertaken in accordance with CoA E3(C)(i), between 00:01 Saturday 13 September 2025 and 23:59 Monday 15 September 2025. An OOHW Permit will be prepared for the proposed works and relevant approvals, including IR hold points, will be obtained prior to the OOHW activities. The OOHW will consist of noise verification monitoring. Post possession works will be undertaken during standard construction hours as specified in CoA E1. Community notifications and agreements shall be established where required to minimise impact on adjacent residents and stakeholders.

Figure 3-1 to Figure 3-5 details the location of the works. A Site Environmental Management Plan will be prepared separately to this document that shows the works in relation to all environmental constraints.

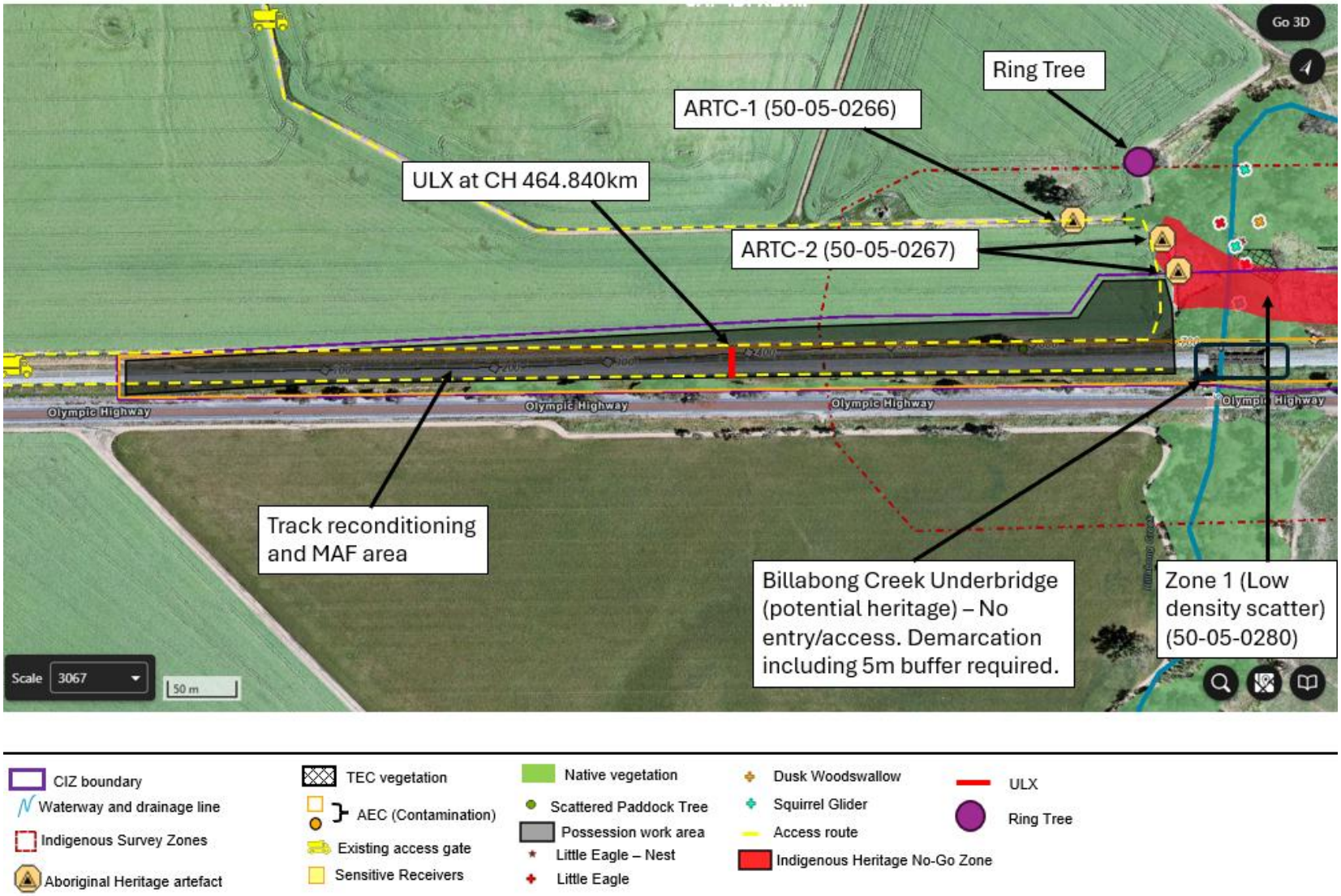


Figure 3-1 – Location of the proposed track reconditioning works.

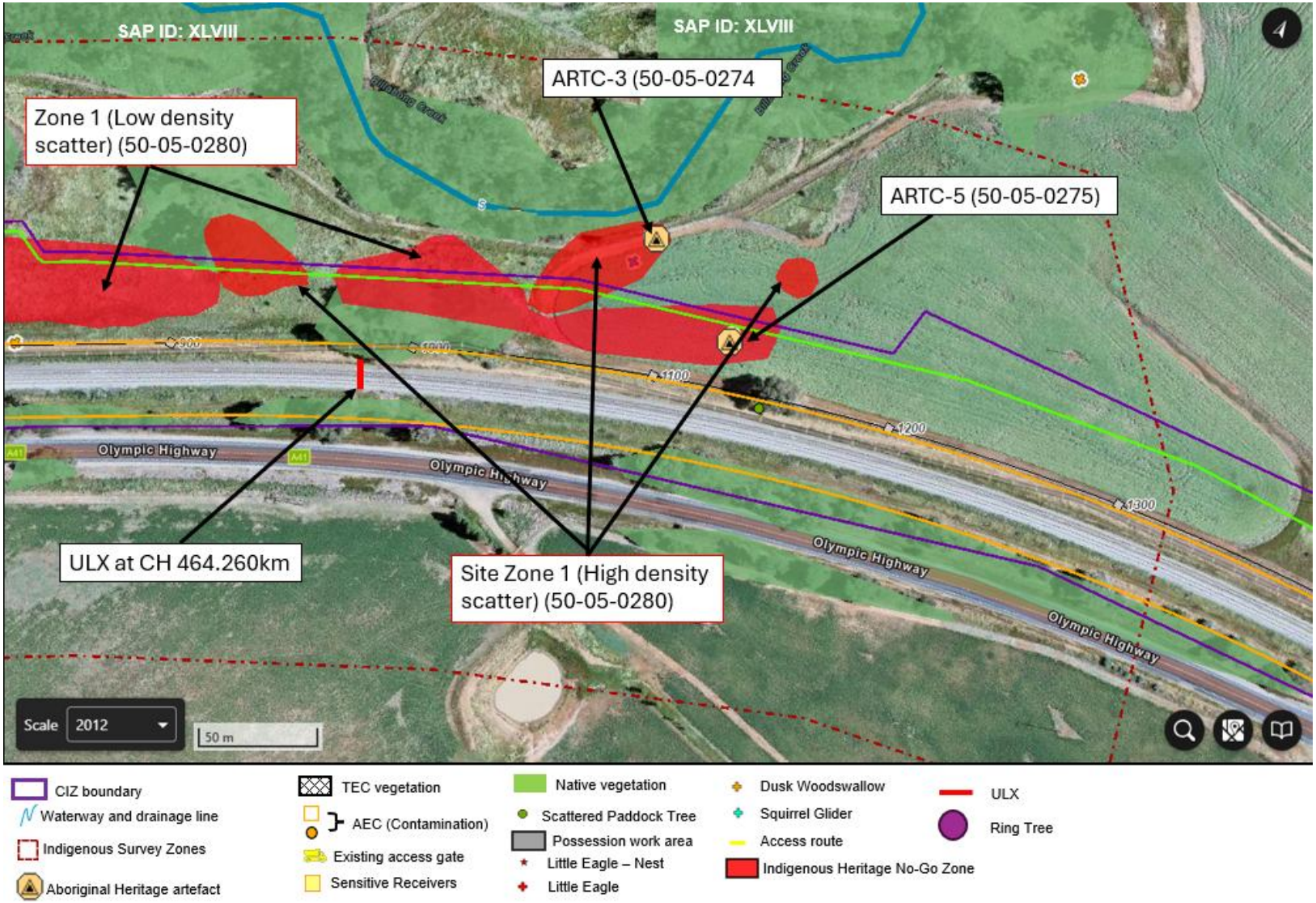


Figure 3-2 – Location of the proposed CSR works at chainage 464.260km

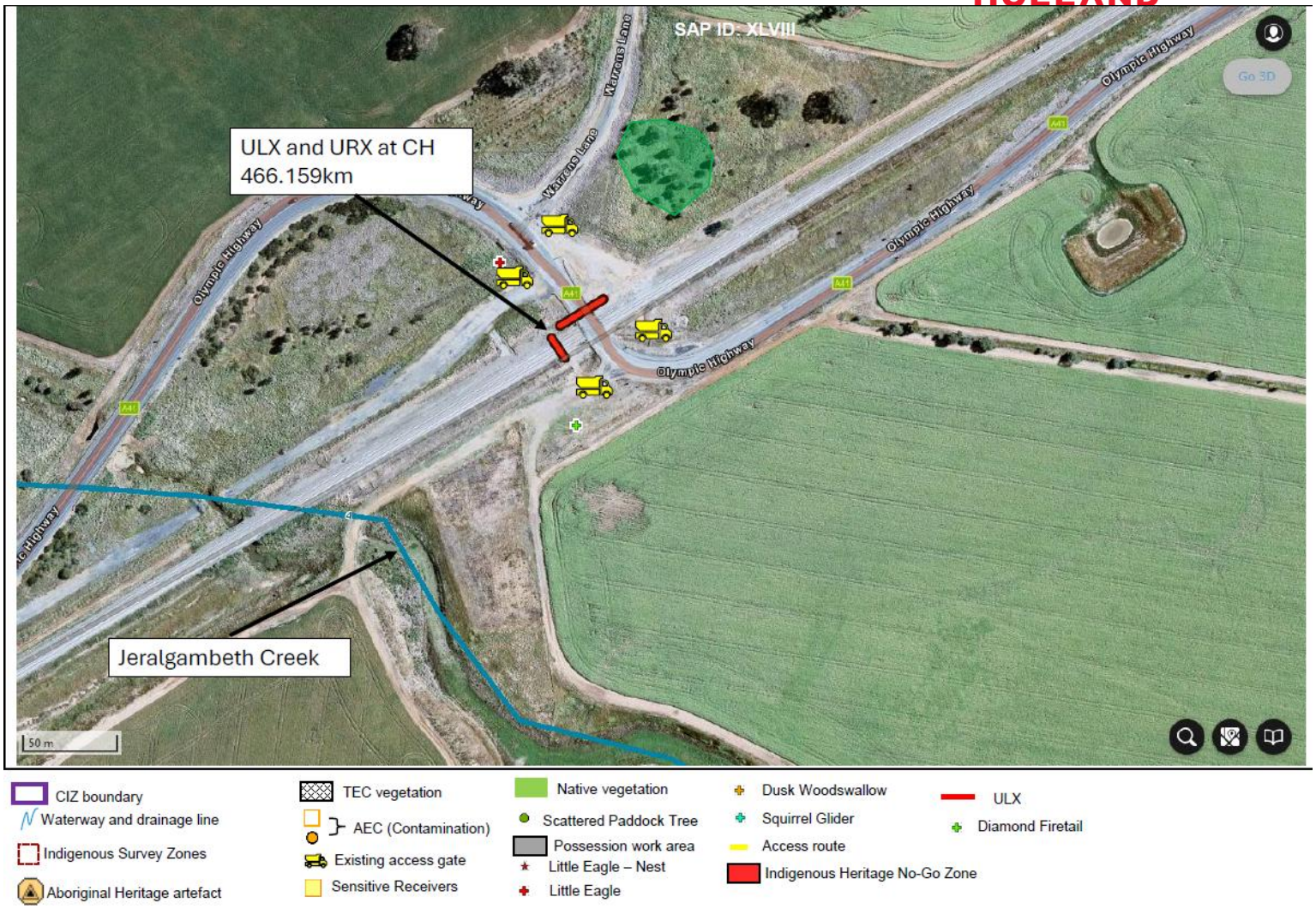


Figure 3-3 – Location of the proposed CSR works at chainage 466.159km

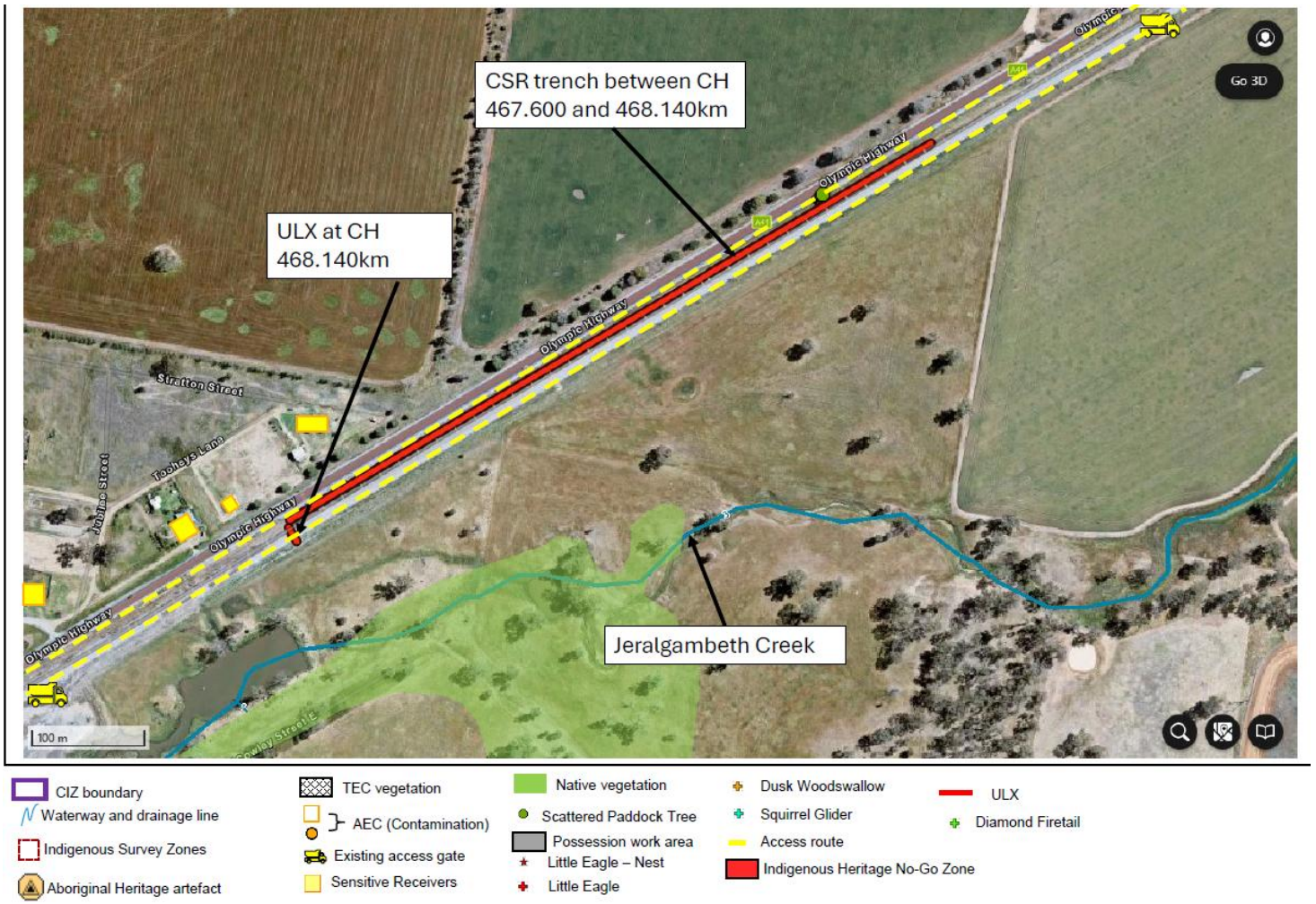


Figure 3-4 – Location of the proposed CSR works between chainage 467.600km and 468.140km

3.2.1 Minor Ancillary Facility

In addition to the above works, a minor ancillary facility will be utilised for the rail possession. The minor ancillary facility will be constructed and operated during the rail possession, in accordance with a separate endorsement from the ER as required under CoA C9. Details of the proposed minor ancillary facility are shown on Figure 3-5.

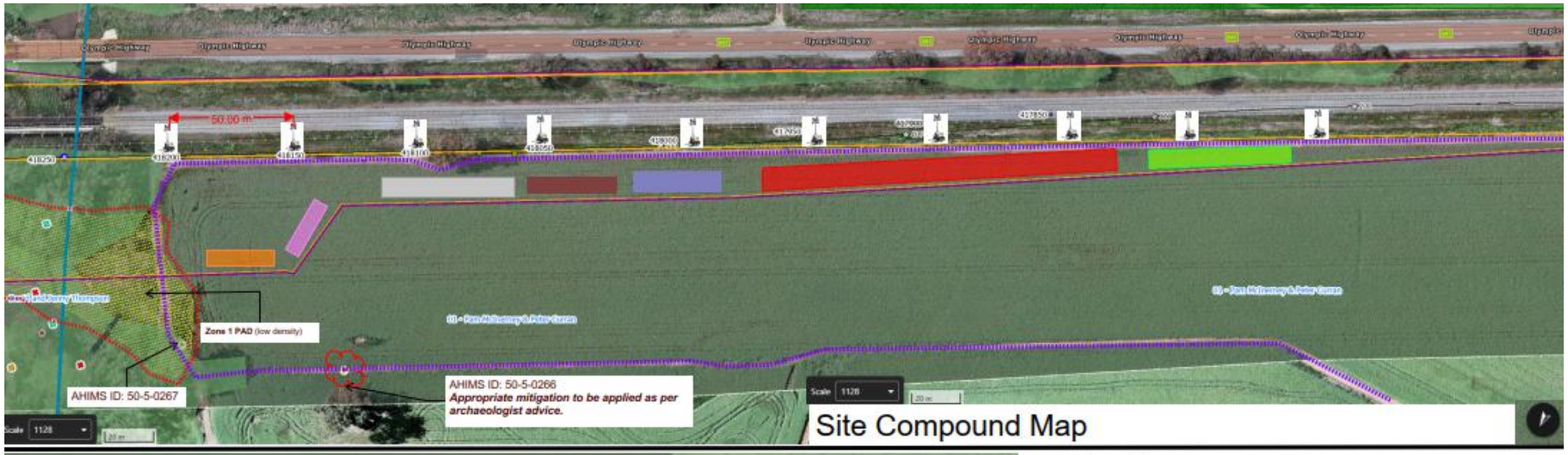


Figure 3-5 – Ancillary Facility

3.3 Stage 2 – All Other Construction Works

All remaining construction activities as defined by the Environmental Assessment Documentation and conditions of approval.

John Holland have submitted an application under A9 to request alternative timing for the submission of the following plans:

- Connectivity Strategy required under E44. The E44 Connectivity Strategy is scheduled for completion prior to the end of 2025 and details of proposed mitigation and actions to be taken will be provided to DPHI in separate correspondence per Condition A9.
- Aboriginal Cultural Values Plan required under E133. The E133 Aboriginal Cultural Values Plan is scheduled for completion prior to the end of 2025 and details of proposed mitigation and actions to be taken will be provided to DPHI in separate correspondence per Condition A9.
- The Box Gum Restoration Plan (E35) and evidence of avoidance on threatened entities (E24 & E33(d)). This information is not proposed to be completed by Inland Rail until after commencement of construction.

3.4 Indicative Timing

Stage 1 works will commence 9 September 2025 and be completed by 19 September 2025.

Stage 2 works will commence upon approval of required CEMP documentation and is anticipated by late September 2025. If there is a delay in CEMP approval following Stage 1 works, Stage 2 will not commence until all relevant CEMP documentation has been approved, and only Low Impact Works will be undertaken in that time between Stage 1 and Stage 2. Stage 2 construction activities will take place over approximately 18 months.

3.5 Cumulative Impacts

Cumulative impacts may occur because of the project being delivered concurrently, or consecutively, with other approved projects in the area.

The pre-construction work carried out for the project is low impact in nature and timeframe and is not expected to lead to cumulative impacts with the commencement of construction Stage 1. Cumulative impact aspects are considered during approval processes for pre-construction works including through Low Impact Work Permits and Minor Ancillary Facility Applications, as required.

Cumulative impacts during construction of the project will be managed through compliance with the relevant CoA and environmental management measures related to all environmental impacts including noise and vibration, transport and traffic and construction fatigue. This will include developing and maintaining forums with relevant stakeholders to regularly discuss current and upcoming works, their potential impacts to the same receivers and the controls to be applied (where relevant). These relevant stakeholders would include councils, Transport for NSW and other nearby Inland Rail projects (e.g. Albury to Illabo).

Given that the proposed staging of the project is predominantly geographical (i.e., many areas will not see any impacts from the project until Stage 2), it is not considered that there are significant risks of cumulative impacts to the community or the environment as a result of staging. This notwithstanding, key CoA to manage cumulative impacts as a result of other projects in proximity or the staging of the project include but are not limited to:

- C14 and C17 (CEMP) – Cumulative impact management in CEMP and Sub-plans.
- E5 (Out of Hours Work Protocol – works not subject to an EPL) – To facilitate the coordination of out-of-hours work to ensure appropriate respite is provided to the community.

- E9 (Construction Noise – Coordination and Respite) - coordinate work with other Inland Rail projects to relocate utilities to minimise cumulative and consecutive noise and vibration impacts.
- E109 (Social Impact Management Plan) – To minimise negative social and cumulative impacts associated with the project.

Mechanisms to mitigate cumulative impacts from the CSSI and its multiple stages are provided in sections below.

3.5.1 Noise mitigation

It is noted that the scale of cumulative impacts is dependent upon timing, location and type of construction activities. Regular interface meetings will be undertaken with government authorities, neighbouring projects, and stakeholders. To manage cumulative impacts, detailed design and construction works will consider with the aim of minimising concurrent works near sensitive receivers, including:

- Coordination between project teams and other CSSI, SSI and SSD projects that are being constructed nearby.
- Rescheduling of work where feasible to provide respite to impacted noise sensitive land user(s) so that respite is achieved.
- Consideration to the provision of alternative respite or mitigation to impacted noise sensitive land users. The consideration of respite must also include all other projects which may cause cumulative and/or consecutive impacts at receivers affected by the delivery of the project.

The ER will be informed of decisions made in relation to respite or mitigation and documentary evidence will be provided to support the decisions. The implementation of respite where it relates to out of hours works will be managed in accordance with the Out of Hours Works Protocol. Enironment Protection Licence #22021 was issued to John Holland on 26 August 2025, out of hours works including permits will be undertaken in accordance with licence conditions.

In accordance with CoA E9 the project will work with third parties (such as utility relocations) to reschedule any work to provide respite to noise impacted sensitive land users so that the respite is achieved. The consideration of respite will also include all other CSSI, SSI and SSD projects which may cause cumulative and/or consecutive impacts at receivers affected by the delivery of the project. Complaints will also be actively monitored for trends that would indicate that sensitive receivers are fatigued by construction.

3.5.2 Traffic mitigation

Regardless of whether the project was staged, work needs to occur within the rail corridor. For safety reasons, much of this work cannot occur in proximity to live trains, and so rail possessions are required to close sections of the rail corridor. Rail possessions or under track occupancy authorisations would occur throughout the project to allow for certain work to occur along the project alignment within the Rail Corridor.

During rail possessions, alternative transport arrangements would be implemented in consultation with relevant stakeholders. This may include passenger trains being replaced by buses/coaches at the discretion of the service operator. Worker parking would generally be contained to the rail corridor (during possessions) or within construction ancillary facilities. Further information is provided in Section 5.2.1.

3.5.3 Other measures

In order to minimise cumulative impacts, IRPL will oversee the project's construction program. This will provide IRPL with the ability to identify potential cumulative impacts as to the duration and nature when compared with other Inland Rail projects. Once the potential impacts are identified, the project will trigger appropriate management measures in accordance with the CoA. The suite of management measures best adapted to the impacted zone will be determined through community consultation. The steps to managing cumulative impacts are:

- Community Stakeholder and Engagement Manager and Environment and Sustainability Manager to identify suite of measures to address cumulative impact via liaison with councils and other stakeholders or sensitive receivers.
- Develop suitable suite of management measures applicable to the area.
- Separation of time and place, staging/phasing works to minimise cumulative impacts.
- Progressively build cumulative management measures into the respective CEMP and Sub-plans (e.g., through Construction Noise and Vibration Impact Statements, and Traffic Management Plans/Traffic Guidance Systems for specific areas).
- Monitor complaints to identify unexpected / emerging cumulative impacts.
- Update approach and revise the CEMP and specific Sub-plans, including the Social Impact Management Plan, as needed.

4 Risk Assessment

The project is employing a streamlined process for the development and endorsement/approval of CEMP, sub-plans and monitoring programs, based on the environmental and social risks for each construction stage. Depending on the scope and scale of works for each stage, the risk assessment determined environmental management documentation requirements.

A risk-based approach has been used to determine the level of management tool which will be used on the project and to guide the implementation of environmental risks and mitigation measures. This approach considers the following:

- Identification of activities to be undertaken during each construction stage
- Assessment of project-specific environmental risks and hazards associated with each construction stage.
- Determination of suitable mitigation measures proportionate to the extent of the risk identified in order to minimise the risk.
- Allocation of defined responsibility for managing the risks and opportunities.

This framework is aligned with AS/NZS ISO 31000: 2018; Risk Management – Principles and Guidelines.

4.1 Risk Assessment Outcomes

A risk assessment has been carried out (Appendix A) and this determined that all environmental aspects for Stage 1 to be low risk and able to be managed under an EWMS as per CoA C1e).

The Risk Assessment was completed to determine potential risks associated with staged commencement of I2S project, specifically Stage 1 works being the Rail possession scheduled for the weekend commencing the night of 12 September 2025 including pre and post possession works.

As a result, the Risk Assessment completed identified that Stage 1 construction activities were low risk and could progress without all of the CEMP and subplans as required under C13, provided that specific mitigation measures were included and provided in an EWMS until a relevant plan is approved (refer to Section 5.2). The Stage 1 activities were deemed low risk due to a combination of:

- Small volume of work - a relatively small volume of works in comparison to the overall project
- Short duration – undertaken during rail possession activities.
- Limited location - i.e., in a constrained location limited to a section of existing rail corridor.
- Low risk of impact – risk of anticipated environmental impacts as a result of the stage 1 works is low.

Based on the level of environmental and community risk for each stage, and with consideration of the consultation, review, endorsement, and approval process, it is proposed to commence construction of stage 2 works following the endorsement of the CEMP, sub-plans and CMP by the ER and approval by DPHI in accordance with Condition C1. John Holland anticipate that required CEMP documentation will be approved by DPHI prior to the commencement of Stage 2 in approximately late September 2025.

The completed Risk Assessment matrix is attached as Appendix A.

5 Compliance

5.1 Consistency across stages

This report is required to detail how compliance with the CoA will be achieved across and between each of the stages of the project for construction. To ensure consistency, efficiency and clear responsibilities, a number of CoA requirements will be delivered across both stages. This includes aspects such as the biodiversity offsets and specific documentation such as the Sustainability Strategy. No aspect of the staged approach to construction will affect the ability of the project to comply with the CoA.

All CoAs will apply during both stages of construction, except for:

- Operational and design related CoAs in Part D and Part E (specifically for Part E, E35 to E37, E44, E109, E110 and E133) of the CSSI Approval – stage 2 only (refer to Section 5.2);
- specific conditions related to the preparation of CEMPs (refer to Section 5.2); and
- specific documents that have been delayed in accordance with Condition A9. Section 5.2 contains the list of CEMP documents that apply per stage.

Section 3.3 contains the CoA items that have been delayed under an A9 application until after construction of Stage 2 has commenced.

5.2 Environmental Management Approach

Low impact works as defined by Table 1 of the CoA will be assessed under a low impact works assessment which will be approved by the ER and IRPL prior to that work commencing. Approval to commence Low Impact Works that commence after Stage1 but before Stage 2 approval will be sort from the ER and IRPL.

The approval of the full I2S CEMP and sub-plans is not anticipated to be received prior to the commencement of Stage 1 construction activities. John Holland have assumed that no CEMP documentation will be approved prior to the commencement of Stage 1 construction activities, and that Stage 1 works will be undertaken in accordance with EWMS specific to Stage 1 works as determined through a risk assessment approach described in Section 4.

It is anticipated that the full CEMP will be approved prior to the commencement of construction under Stage 2. The full suite CEMP documentation has been prepared in accordance with Environmental Management Plan Guideline for Infrastructure Projects (Department of Planning, Industry and Environment (DPIE), 2020c). The project CEMP for Stage 2 will provide a centralised mechanism through which construction-related environmental impacts and management measures are documented. It will comprise a main CEMP document, issue specific Sub-plans and CMPs, and procedures.

The CEMP will provide the system and procedures to ensure that environmental impacts are minimised, and that legislative and approval requirements are fulfilled. The plans for both Stage 1 and Stage 2, as required by the CoA, comprise the information provided in **Table 5-1** :

Table 5-1 Construction environmental management requirements across stages

CoA No.	Condition Requirements	Stage 1	Stage 2
C12	Main Document CEMP	Low Risk Managed under an EWMS in accordance with C1	Full suite document under C12
C17a	Traffic, transport, and access	Low Risk Managed under an EWMS in accordance with C1	Full suite document under C17
C17b	Noise and Vibration	Low Risk Managed under an EWMS in accordance with C1	Full suite document under C17
C17c	Biodiversity	Low Risk Managed under an EWMS in accordance with C1	Full suite document under C17
C17d	Soil and water	Low Risk Managed under an EWMS in accordance with C1	Full suite document under C17
C17e	Heritage	Low Risk Managed under an EWMS in accordance with C1	Full suite document under C17
C17f	Flood emergency management	Low Risk Managed under an EWMS in accordance with C1	Full suite document under C17
C17g	Biosecurity	Low Risk Managed under an EWMS in accordance with C1	Full suite document under C17
Construction Monitoring Programs			
C27a	Noise and Vibration Monitoring Program	Low Risk Managed under an EWMS in accordance with C1	Full suite document under C27a
C27b	Surface Water Monitoring Program	Low Risk Managed under an EWMS in accordance with C1	Full suite document under C27b
C27c	Traffic, Transport and Access Management Monitoring Program	Low Risk Managed under an EWMS in accordance with C1	Full suite document under C27c

In addition to the CEMP, and its Sub-plans and CMPs, several other strategies, plans and procedures will be developed and implemented during Stage 1 and Stage 2 construction to manage environmental and community impacts in accordance with the mitigation measures. These include but are not limited to:

- Out of Hours Work Protocol (Stage 1 and Stage 2).
- Water Reuse Strategy (Stage 2 only).
- Unexpected Finds Protocol – Heritage (Stage 2 only).
- Unexpected Finds Protocol – Ecology (Stage 2 only).
- Unexpected Finds Protocol – Contamination (Stage 2 only).
- Community Communication Strategy (Stage 1 and 2).
- Social Impact Management Plan (Stage 2 only).

It is noted that an unexpected finds protocol under CoA A17 has been prepared and approved for low impact works. However the unexpected finds protocol prepared under A17 can be utilised for Stage 1 activities, as it is anticipated that this protocol is reflective of the protocols that would be used for construction for Biodiversity, Heritage and Contamination Finds as required under CoA C20F, E27 (Biodiversity), E132, E143 and E144 (heritage) and E161 – Contamination.

5.2.1 Traffic Management - Stage 1

Traffic management during Stage 1 will be managed via a site-specific Environmental Works Method Statement (EWMS) for approval by the ER prior to the commencement of Stage 1. General traffic, transport and access information is provided below to guide Stage 1 activities.

5.2.1.1 Dilapidation Surveys

In accordance with E101, a dilapidation survey would be undertaken for all public roads or bridges within the proposed haulage routes and diversion roads prior to the commencement of construction. Reports will be provided to the relevant road authority(ies) and TfNSW for classified roads within one month of completion of the road dilapidation survey and at least two weeks before the road is used by heavy vehicles. Road dilapidation will be undertaken in accordance with the IRPL Specification Document 0-0000-900-IAC-00-SP-0001_1, Minimum Requirements for Road Condition Survey.

Where the existing roads that are impacted by the heavy vehicle construction and haulage routes require necessary upgrade, written approval from the relevant road authority and TfNSW for classified roads will be gained prior to commencing main construction works.

Mitigation and remedial measures to minimise and repair impacts on properties, Stakeholders, private access roads/tracks and the relevant Road Authority’s Road network may include the following where feasible and practicable:

- Consolidation of deliveries
- Utilisation of the project’s haul route along the project corridor
- Selection of specific designated construction and haulage routes

Remedial measures will need to be assessed on a case-by-case basis in consultation with the applicable Stakeholder(s).

5.2.1.2 Road Closures

Prior to any road closures, all relevant stakeholders, including planned community, landowners, the relevant Road Authority and TfNSW for classified roads, will be consulted.

Prior to road or lane closures, appropriate licenses would be sought from the relevant stakeholder (e.g., Road Occupancy Licenses from Transport for NSW). The relevant stakeholders who issue these licenses are responsible for considering the interface of a license with other issued licenses in the area, thereby managing traffic cumulative impacts. Relevant stakeholders will notify the project if the cumulative impacts of carrying out works that require such a license would cause too great an impact to the traffic network when considering other nearby projects.

Other than the formal platform of Traffic and Transport Liaison Group (TTLG) meetings with LGAs and representatives from other relevant stakeholders, feedback channels, including Community information line, project email address, physical project information centre, etc., will be utilised to receive potential complaints or advise from the public as per I2S Community Communication Strategy (https://inlandrail.com.au/wp-content/uploads/2024/10/i2s-community-communication-strategy-4.pdf). All complaints received during the I2S project will be actioned and recorded through Consultation Manager and used as an improvement opportunity for future work.

The works will be planned in such a manner to ensure access is maintained and impacts are minimised as far as is reasonably practicable.

5.2.1.3 Management of Vehicular Traffic

JHG will aim to minimise the Project's impact on the road networks through the development of site specific TMPs. This will include:

- Minimising the footprint of works on roads and identifying potential adverse impacts during design.
- Considering work durations during planning and design to minimise occupation times on roads for construction and maintenance.
- Detailing plans for route guidance via media releases and roadside VMS.
- Considering the modal priorities identified by the client and relevant stakeholders.
- Planning works to maximise capacity during peak periods.
- Identifying suitable alternative routes for diverted traffic.
- Working with TfNSW to develop strategies for the wider network to minimise impacts.
- Developing contingencies as part of the planning process for any potential delay event.

Haulage routes and access will be managed in accordance with the Traffic and Transport EWMS as described above.

Haulage routes will also be detailed within Site Specific TMP's, with these plans communicated to delivery drivers and site personnel through project inductions.

Use of private access roads or local roads will be consulted with relevant stakeholders (LGAs or landowners) prior to any work commencement.

5.2.2 Biodiversity and Biosecurity Management – Stage 1

Biodiversity impacts are anticipated to be negligible during Stage 1, as no vegetation clearance will be undertaken during Stage 1.

Biosecurity impacts could result from movement in and out of the rail corridor for the completion of rail possession activities for Stage 1, however, no transportation along the alignment are expected for

Stage 1, i.e. works are restricted to a small, isolated section of the existing rail corridor. An EWMS will be prepared to manage potential Biosecurity and Biodiversity impacts.

5.2.3 Soil and Water Management – Stage 1

Soil and water impacts could result from earthworks, tracking of equipment and material movement during rail possession activities for Stage 1. Soil and water management measures specific to the Stage 1 scope of works are detailed in the Stage 1 EWMS.

5.2.4 Heritage Management – Stage 1

Heritage impacts are anticipated to be negligible during Stage 1, as no heritage items or places have been identified in the location where rail possession activities will be undertaken during Stage 1. Heritage management measures specific to Stage 1 scope of works are detailed in the Stage 1 EWMS.

5.2.5 Flood Emergency Management – Stage 1

An EWMS or emergency plan for the works will be prepared that details procedures for the management of site movements and evacuation in the event of severe rainfall leading to flood emergency during Stage 1. Flood emergency management measures specific to Stage 1 scope of works are detailed in the Stage 1 EWMS.

5.3 Low Impact Works

Low impact works will only occur after the following activities have been undertaken:

- Consideration of relevant regulatory requirements.
- Identification of relevant CoA and environmental mitigation measures.
- Preparation of a Low Impact Work Permit and approval by IRPL to confirm that the works meet the definition of low impact works in accordance with the definition in the CoA.

If full CEMP approval is not received immediately following the completion of Stage 1 works, Stage 2 will not commence until these plans are approved.

Appendix A - Risk Assessment Matrix

ENVIRONMENTAL RISK REGISTER

Project: Inland Rail - Illabo to Stockinbingal
Date: 10/07/2025
Revision: 1

Red text denotes change since last revision. ~~Strikethrough~~ denotes text to be deleted.

Hazard Description	EIS-CEMP Ranking Matrix			Stage One Risk	Stage One Standard Controls	Residual Ranking Matrix			Comments
	Initial Likelihood	Initial Consequence	Risk Matrix			Likelihood	Consequence	Residual Risk	
Approvals									
Proposed works not consistent with EIS, CoA or Contract requirements, lacking in an expected aspect.	Almost certain	3	High	Delays through consistency reviews or modification required	Continual review of works to ensure they are in accordance with the planning approval. Development of Staging report, consistency assessments, LIWAs and MAFS where required.	unlikely	2	Low	Revised down from the EIS risk assessment.
Non-compliance with Environmental Approvals (EIS,CoA)	Almost certain	4	Very High	Breach of Legislation,	Compliance tracking, adequate resourcing, project induction, staff training, auditing, carry out works in accordance with mitigation measures in the CEMP, measures detailed in plan. Stage 1 of the Project will implement the mitigation measures contained within the following management plans that will manage risk associated with these risks and hazards during the proposed works. These plans include: - Construction Environment Management Plan - ER Endorsed - Noise & Vibration Management Plan (C19) - ER Endorsed - Contaminated & Hazardous Material Management Plan (SC-7) - ER Endorsed - Soil & Water Management Plan (C22) - ER Endorsed - Groundwater Mitigation & Management Plan (GW-4) - ER Endorsed - Heritage Management Plan (C23) - ER Endorsed - Biodiversity Management Plan (C20) - ER Endorsed - Biosecurity Management Plan (C25) - ER Endorsed - Flood Emergency Management Plan (C24) - ER Endorsed - Waste Management Plan (WM-2) - ER Endorsed - Air Quality Management Plan (AQ-1) - ER Endorsed - Community Consultation Strategy (B1) - ER Endorsed - Social Impact Management Plan (E109) - ER Endorsed - Temporary Workforce Accommodation Facility Management Plan (A18) - ER Endorsed - Traffic, Transport and Access Management Plan - Bushfire Emergency Plan (E121) - ER Endorsed - Environmental Work Method Statement (EWMS) which will incorporate traffic, transport and access mitigation measures.	unlikely	3	Low	Revised down from the EIS risk assessment. The conditions triggered by this scope of work have been listed in the Project Staging Report with risks associated with the implementation of Management Plans captured in this Risk Assessment below (for the purposes of Condition C1).
Non-conformance with CEMP, Staging Report, EWMS, relevant sub Plans and legislative requirements	likely	3	High	delays, fines, prosecutions, environmental harm	Induction training to be implemented for staff on the Project. Consistency / compliance review of relevant documents that are prepared in timely manner. Develop and implement an efficient and robust audit / inspection plan as part of the CEMP.	unlikely	3	Low	Revised down from the EIS risk assessment. The conditions triggered by this scope of work have been listed in the Project Staging Report with risks associated with the implementation of Management Plans captured in this Risk Assessment below (for the purposes of Condition C1).
Failure to obtain third party approvals	Almost certain	3	High	Delay in program	Early identification of and engagement with key stakeholders. Approvals strategy, planning meetings. Utilising GIS information provided as part of the tender process and building on those layers as the design develops.	unlikely	3	Low	All third party approvals have been obtained (an EPL is in place- EPL No. 22012).
Construction footprint cannot be achieved	possible	3	Medium	Additional approvals required, costs, alternative techniques required.	Construction methodology developed early confirm required work area/footprint and to identify if any works are outside the CIZ and any subsequent additional environmental approvals i.e. Consistency Assessment.	unlikely	3	Low	All works are nominated within or adjacent to the construction boundary for the possession works. Where works are adjacent to the boundary, a Consistency Assessment will be reviewed and endorsed by the Proponent (IRPL) before works can commence.
Unable to achieve required design and as-built ISC rating.	likely	3	High	Noncompliance with MCoA and Deed	Develop and implement a Sustainability Management Plan. Specialist sustainability contractors identified and engaged early. Develop and implement an efficient and robust audit / inspection plan as part of the SMP.	unlikely	3	Low	Not applicable to this scope of work.
Change of legislative / regulatory requirements	possible	3	Medium	Breach of Legislation, additional approvals, costs	Compile and maintain a legislation register. Identify and review new legislation. Subscribe to EnviroLaw. Compliance tracking, auditing, inspections, training. Change management processes incorporated in the CEMP.	unlikely	2	Low	Revised down from the EIS risk assessment.
Delay in obtaining project approval	Almost certain	4	Very High	Time and cost	Frequent communication with regulators. Preparation of documents to be ready for submission to DPHI. Project approval obtained.	unlikely	3	Low	Revised down from the EIS risk assessment.
Traffic Transport and Access									
Changes to intersection and traffic performance due to heavy vehicle movements, narrowing of lanes, speed restrictions and temporary lane closures	likely	3	High	Traffic delays, complaints	Develop and implement an EWMS which will manage risks associated with traffic, transport and access identified in the EIS and relevant CoAs. For Stage 1, this includes the following. - Dilapidation Surveys have been undertaken in accordance with Condition E101 and E102. Warrens Lane will be managed in accordance with Condition E103 as required which will ensure that any potential physical impacts during the possession are repaired to a standard of the same or better than it was prior to the possession works. - Mitigation and remedial measures to minimise and repair impacts on properties, Stakeholders, private access roads/tracks and the relevant Road Authority's Road network may include the following where feasible and practicable: • Consolidation of deliveries • Utilisation of the project's haul route along the project corridor • Selection of specific designated construction and haulage routes	unlikely	3	Low	
Impacts to road safety as a result of increased road use and turning movements at intersections and construction site access gates.	likely	3	High	Safety issues, incidents, traffic delays, complaints		unlikely	3	Low	
Disruptions and delays to public transport operations, particularly buses	likely	3	High	Traffic delays, complaints		unlikely	3	Low	
Impacts on the availability of on street and off-street parking surrounding construction work areas	likely	3	High	Community amenity impacted, public complaints		unlikely	2	Low	

Traffic impact to roads utilised by the project due to cummulative impacts from other surrounding projects.	likely	3	High	Community amenity impacted, public complaints	- A Traffic Guidance Scheme (TGS) will be prepared for use in the September possession which will outline how traffic and pedestrian movements will be safely managed to protect workers and road users while maintaining traffic flow during the possession. This will include entry/exit points into the possession work area. The TGS will be approved under an ROL. The TGS is a standard traffic control set up for holding construction traffic within the work zone before releasing them onto Olympic HWY at staged intervals (to redeuce the risk of delays to traffic on Olympic HWY). - No vehicle delays are anticipated from works during the Illabo possession. All traffic will flow as per regular traffic arrangements on Olympic HWY throughout the weekend with heavy vehicles and light vehicles entering/exiting via existing local and state roads. - Traffic volumes and construction works will be within the rail corridor and not impact on local and regional traffic flow. - Vehicles will not park on local roads or verges. Parking will be limited to onsite designated car parks and other areas with the possession work area. - Access/egress to the work site will be via a private farm access road which has been approved with the property owner in accordance with Condition C7, C8, E86, E94 and E95. This access/egress will ensure that direct access to the rail corridor will be provided for all construction vehicles and will not require any specific road closure or traffic calming measures to be in place. - This access/egress will be separate to the property landowner access (see figure in attached Staging Report). The TGS that has been approved for these construction activities will hold construction vehicles within the rail corridor or on the access track and release vehicles onto Olympic HWY and Warren's Lane in a staged manner to avoid any local impacts to property owners or public vehicles. - The work zone will be entirely within the rail corridor under a possession arrangement (no interface with road traffic or rail). The nearest CSSI project (Albury to Illabo) have a site compound further south opposite Illabo village which does not interface with traffic movements from the I2S site facility or construction activities for the Illabo possession. - The works will not block, impede or otherwise affect property access or farm operations unless previously agreed by the landowner, and documented in the Individual Property Plans (IPP). - Onsite designated carparks will be appropriately sized to handle the capacity of vehicles required for the possession. - Community notifications of the possession works will be undertaken in accordance with the CCS. This may include site VMS boards to notify road users. - Early identification of local roads during construction planning that will be impacted as part of the work. - Prioritise the use of arterial and sub-arterial roads. - Investigate opportunities to minimise impacts to local roads. - All personnel will participate in a site induction which will include traffic, transport and access related measures. This will be reinforced during pre-starts which will be undertaken prior to the commencement of each shift. - Delivery drivers, including material deliveries, will be provided adequate directions prior to entering the possession/site area.	unlikely	3	Low	
Impacts on access to private properties.	likely	3	High	Complaints from landowners, impacts to farm operations		unlikely	3	Low	
Impacts to emergency services through delays in access due to works.	likely	3	High	Impacting the ability of emergency services to perform critical tasks		unlikely	3	Low	
Reduced pedestrian and cyclist access.	unlikely	3	Low	Reduced accessibility to pedestrians/cyclists, complaints		rare/remote	2	Low	
Impact of construction work on existing rail operations during the tie-in to the north and south ends of the project area.	possible	2	Low	Traffic/railway delays, complaints,		unlikely	2	Low	
Realignment of Burley Griffin Way resulting in detours and change to traffic control.	Almost certain	3	High	Traffic delays, complaints		rare/remote	1	Low	
Impacts bus routes and services as a result of increased road use and diversions due to road realignment.	Almost certain	2	Medium	Bus service delays, complaints		rare/remote	1	Low	
Impacts livestock highways as a result of increased construction traffic.	likely	2	Medium	Impacting farm operations		unlikely	2	Low	
Rural roads unsuitable for construction traffic (e.g., size, land use).	possible	3	Medium	Safety issues, incidents, traffic delays, complaints		unlikely	3	Low	
Increase in road use as a result of cumulative infrastructure projects in the vicinity proposal.	unlikely	3	Low	Safety issues, incidents, traffic delays, complaints		unlikely	2	Low	
Physical impact to roads utilised by the project (dilapidation), including consideration of cummulative impacts from other surrounding projects	Almost certain	3	High	Community amenity impacted, public complaints, cost of vehicle damage claims		possible	2	Low	
Noise and Vibration									
Elevated noise and vibration levels around construction sites, compounds, site accesses and haul routes affects amenity for sensitive receivers	likely	4	Very High	Possible breach in approvals, Community complaints, construction fatigue, property damage.	Stage 1 of the Project will implement the mitigation measures contained within the following management plans that will manage risk associated with these risks and hazards during the proposed works. These plans include: - Environmental Protection Licence under the *Protection of the Environment Operations Ac*t 1997. - Noise & Vibration Management Plan (C19), including Out of Hours Work (OOHW) Protocol and approval process. - Construction Noise & Vibration Impact Statement - Community Consultation Strategy (B1) Other key items include (but not limited to): - An OOHW Permit will be prepared for the September possession which will include noise modelling which will inform mitigation requirements. - Noise monitoring/validation will be undertaken as detailed in the OOHW Permit. - Community notifications will be undertaken as per the CCS. - Worker awareness of noise and vibration related requirements will be undertaken via the site induction, toolbox talks and pre-start meetings - Alternate construction methods will be considered during the possession (for e.g. shears vs hammering) - Minimise idling, shouting and staff gathering near sensitive area. - Cumulative impacts from other construction works will be considered in the noise model where applicable. - Only equipment necessary for the works will be used. - Limit activity duration. Any equipment not in use shall be switched off. - Non-tonal reversing alarms such as 'quackers' will be used for all relevant construction vehicles and mobile plant. - All personnel will receive a toolbox/prestart meeting prior to works commencing. Topics to be discussed include the location of noise sensitive receivers, permitted working hours, and staff to be briefed before works i.e. no loud talking, music, swearing, be mindful of the community. Turn off equipment when not in use. Do not drop tools, equipment, materials etc.	unlikely	2	Low	
Noise impacts on sensitive receivers (including residents, employeesand recreation facility users) for work undertaken outside of standard working hours (such as works required to be undertaken under an ROL arrangement)	likely	4	Very High	Community complaints, regulator involvement		unlikely	2	Low	
Cumulative noise impacts from other projects	likely	2	Medium	Community complaints, regulator involvement		unlikely	2	Low	
Vibration impacts on heritage and other structures causing damage (cosmetic and/or structural)	possible	4	High	Property damage, delays, breach of CoA.		unlikely	2	Low	
Vibration impacts on sensitive equipment	possible	4	High	Damage complaints, delays		rare/remote	2	Low	
Air Quality and Odour									
Impacts on air quality as a result of dust generation during construction (from earthworks, ground disturbance, vegetation removal, exposed soil/stockpiles, excavation and vehicle movements)	likely	4	Very High	community concerns, regulator involvement, fines, impacts flora fauna, pollution	Stage 1 of the Project will implement the mitigation measures contained within the following management plans that will manage risk associated with these risks and hazards during the proposed works. These plans include: - Air Quality Management Plan (AQ-1) - Contaminated & Hazardous Material Management Plan (SC-7) - Soil & Water Management Plan (C22), including relevant ERSED Plans - Complaint management processes (considered in the relevant sub-plans and the CCS) - Sustainability Management Plan	unlikely	3	Low	

Odours/emissions from disturbance of contaminated soils or other sources such as asphalt laying during road modification works	unlikely	3	Low	community concerns, regulator involvement, fines, impacts flora fauna, pollution	Other key items include (but not limited to): - Use of water carts as suppression as required - Minimise exposed surfaces and stage works to minimise disturbed areas. - Restrict dust and odour generating activities in strong wind conditions. - Materials to and from site to be covered. - Stockpile sites chosen as far as reasonably practical from sensitive receivers. - Enforce speed limits on existing unsealed haul roads to minimise dust generation. - Engagement with relevant stakeholders. - Induction and training - Plant pre acceptance and maintenance records (as plant are floated to site); and daily pre-start checks (as plant are operated day-to-day). - Appropriate storage and management of chemicals. - Stabilisation of stockpiles where they are not in use. - Reassessing\modify works and mitigation methods on hot, dry and windy days where excessive dust generation is observed/likely.	unlikely	2	Low	
Fugitive emissions (e.g. VOCs) from fuel/chemicals storage and handling	possible	2	Low	community concerns, regulator involvement, fines, impacts flora fauna, pollution		unlikely	2	Low	
Impacts on air quality as a result of emissions from vehicles or plant during construction	likely	2	Medium	community concerns, pollution		unlikely	2	Low	
Contamination									
Potential to disturb contaminated soils during construction and mobilise contamination.	possible	3	Medium	Exposure of contamination, spread of contaminated substances/materials, human exposure, ecological exposure	Stage 1 of the Project will implement the mitigation measures contained within the following management plans that will manage risk associated with these risks and hazards during the proposed works. These plans include: - Soil & Water Management Plan (C22) - Contaminated & Hazardous Material Management Plan (SC-7) - Emergency Response Plan (inclusive of emergency spill response) - Unexpected and Incidental Finds Protocol for contamination Other key items include (but not limited to): - Removal off-site as a waste to a licensed waste facility. - Works are not being undertaken in an area of known or suspected contamination - Specialist Contractor(s) including CPESC and contamination consultant - Chemicals, fuel tanks and associated pipework to be located within bunds with 110% capacity. - Spill kits to be made available on site to prevent material entering the watercourse or surface water drains. - Tanks, bunds, plant and machinery to be regularly maintained. - Training key personnel in emergency spill response. - Daily prestart inspection for all hydraulic plant. - Appropriate storage and management of chemicals. - Refuelling and wash-down in designated areas only. - ERSED Plans - Training toolbox and induction - Materials Tracking Register - Waste classification and disposal at appropriately licensed facilities. - Awareness and management of the AEC located within the railway corridor and processes to follow should suspected contamination be discovered.	unlikely	3	Low	
Potential to disturb hazardous materials during the demolition of buildings and structures.	possible	3	Medium	Exposure of contamination, spread of contaminated substances/materials, human exposure, ecological exposure		rare/remote	2	Low	
Potential for direct contact exposure by construction workers to soils associated with dumped materials and stockpiles or machine storage and maintenance.	possible	3	Medium	Exposure of contamination, spread of contaminated substances/materials, human exposure, ecological exposure		unlikely	2	Low	
Accidental discharge of potentially contaminated groundwater	possible	3	Medium	Pollution, breach of legislation, fines		rare/remote	2	Low	
Exposure/ Mistreatment of Acid Sulfate Soils causing pollution or impacting construction in ground	possible	3	Medium	Pollution, breach of legislation, fines		rare/remote	2	Low	
Contamination of soils and groundwater due to spills or leaks of fuels, oil or other hazardous substances	possible	3	Medium	Pollution, soil contamination, breach of legislation, fines		unlikely	3	Low	
Contaminated stockpile storage and containment inadequate in space or build	likely	3	High	Pollution, breach of legislation, fines, costs due to added disposal/management of material		unlikely	3	Low	
Not recognising/ improperly treating unexpected finds	Almost certain	3	High	Pollution, breach improperly legislation, fines, incorrect waste disposal, potential cross contamination of stockpiles.		unlikely	3	Low	
Incorrect classification of waste	Almost certain	3	High	Pollution, breach of legislation, fines		unlikely	3	Low	
Incorrect disposal of waste	Almost certain	3	High	Pollution, breach of legislation, fines		unlikely	3	Low	
Water Quality									
Sedimentation of local and downstream watercourses and water bodies	likely	3	High	Pollution of surface water/groundwater, ecological impacts, impacts to waterways users (farmers), breach of legislation, fines	Stage 1 of the Project will implement the mitigation measures contained within the following management plans that will manage risk associated with these risks and hazards during the proposed works. These plans include: - Soil & Water Management Plan (C22) - Groundwater Mitigation & Management Plan (GW-4) - SEP / ERSED plans Other key items include (but not limited to): - Installation and maintenance of ERSED controls in accordance with the Blue Book. - Construction planning and methodology - CPESC to develop Erosion and Sediment Control Plans (ESCPs) prior to works commencing. PESCP to be implemented throughout the site. - CPESC to undertake site inspections as required. - Delineate areas to be retained i.e. areas of native vegetation/TEC, riparian zones, waterways, paddock trees. - Stabilise exposed areas and stockpiles when they are not in use - Stabilised entry/exit points to minimise mud tracking on public roads. - Diversion of clean water away from the work area. - No works within the adjacent Billabong Creek. - No offsite discharge of water permitted. - Management of groundwater if encountered (although unlikely) - Spill kits will be positioned throughout the work area and appropriate training in their use. - Plant Pre-Acceptance Maintenance Records - Daily pre-starts on plant/equipment to be used. - Pre-rainfall inspections to be undertaken where >20mm is forecast in a 24 hour period. - Concrete washouts to be used if required. - Appropriate waste receptacles to be positioned to prevent litter/rubbish accumulation in waterways.	unlikely	3	Low	
Impacts to water quality due to disturbance of actual or potential acid sulphate soils	possible	4	High			rare/remote	2	Low	
Increased alkalinity and pH of watercourses due to runoff from concrete batching plant operations.	unlikely	4	Medium			rare/remote	1	Low	
Litter from construction activities polluting downstream watercourses.	unlikely	3	Low			unlikely	2	Low	
Contamination of groundwater from construction activities.	possible	4	High			unlikely	3	Low	
Impacts on surface water from spills or leaks from construction plant and equipment.	Almost certain	2	Medium			possible	2	Low	
Hydrology and Flooding									
Impairment or modification of existing drainage infrastructure	likely	3	High	Change in overland flow paths and flood regimes, exacerbation of flooding impacts caused by construction	Stage 1 of the Project will implement the mitigation measures contained within the following management plans that will manage risk associated with these risks and hazards during the proposed works. These plans include: - Soil & Water Management Plan (C22) - Groundwater Mitigation & Management Plan (GW-4) - Flood Emergency Management Plan (C24)	unlikely	2	Low	
Temporary impact to the behaviour of local surface water systems during construction due to the presence of construction features, including erosion and sedimentation control structures.	possible	3	Medium			possible	2	Low	

Changes to flow patterns and altered hydrology due to construction in watercourses.	possible	3	Medium	exacerbation of flooding impacts caused by construction, reduction in floodplain storage, impacted water quality, flooding impacts to properties and construction sites, safety impacts to workers/community.	Other key items include (but not limited to): - Assessment undertaken by hydrologist which confirms that the possession works will not impact on hydrology and flooding in the area in accordance with Condition of Approval E66. - Management of water flow/diversions through temporary works designs and in consultation with CPESC. - Implementation of PESCP to minimise sedimentation in waterways/drains. - Where significant rainfall is forecast, ensure that appropriate controls (as detailed in the FEMP), SWMP and PESCP are implemented.	rare/remote	1	Low	
Impact of flooding on unprotected areas during construction resulting in washouts or erosion.	possible	3	Medium			unlikely	3	Low	
Sedimentation and changes to geomorphology in watercourses.	possible	3	Medium			unlikely	2	Low	
Changes to impervious areas and/or the catchment area of existing drainage infrastructure,	Almost certain	2	Medium			unlikely	2	Low	
Groundwater									
Extraction of groundwater may cause drawdown of the groundwater table, impacting sub-surface flows and water availability.	possible	4	High	Nearby ground formation and structures potentially impacted. Ecological impacts to due change in subflow. Impacts to other users who rely on the aquifer e.g. farmers for groundwater bores	In accordance with the Conditions of Approval, the Project will limplement the following management plans that will manage risk associated with these risks and hazards during construction. These plans include: - Soil & Water Management Plan (C22) - Groundwater Mitigation & Management Plan (GW-4) - Biodiversity Management Plan (C20) Other key items include (but not limited to): - Ensuring design appropriately considers groundwater interactions to mininise impacts as much as possible - Modelling (and/or review of existing modelling undertaken as part of the EIS). Scope of works not anticipated to interact with groundwater. - No groundwater extraction to occur as part of works - In the unlikely event that groundwater is encountered, it will be removed using a vacuum truck or used for dust suppresion. No groundwater will not be discharged offsite, including to waterways or drainage lines.	rare/remote	1	Low	
Potential for bulk excavations to intersect the water table and lead to groundwater level drawdown, impacting nearby groundwater bores, groundwater dependent ecosystems, and watercourse base flow.	possible	3	Medium			unlikely	3	Low	
Changes to soil moisture content causing compression or settlement.	possible	4	High			unlikely	3	Low	
Degradation of water quality through the movement of potentially existing contamination plumes within the groundwater environment.	rare/remote	3	Low			unlikely	2	Low	
Non-Aboriginal heritage									
Potential direct impacts on heritage listed sites located within the proposal site and any potential heritage items located within/near the proposal site.	likely	4	Very High	Delays in approval to recommence. Additional measures, archaeological salvage, DPHI approvals, irreversible damage, prosecutions, infringements, permanent damage/harm to heritage items, damage to property, complaints,	Stage 1 of the Project will implement the mitigation measures contained within the following management plans that will manage risk associated with these risks and hazards during the proposed works. These plans include: - Heritage Management Plan (C23) - Noise & Vibration Management Plan (C19). - Unexpected and Incidental Finds Protocol Other key items include (but not limited to): - Physical delineation, including fencing / barriers or the Billabong overpass railway bridge which is not a listed heritage item but has potential heritage significance. - Training and awareness, including induction (and specifically for an artefact find). - Specialist heritage consultant on-call should any UNX finds be discovered. - Sympathetic design - Sensitive Area Plans to include heritage sites and briefed to site teams. - Unexpected and Incidental Finds Protocol to be followed should potential Heritage items be uncovered. - Heritage licenses/permits as required. - Avoiding vibration intensive works with MWDs of listed heritage structures, unless further assessment/approvals have been obtained. - Further assessment of items with potential heritage significance.	unlikely	3	Low	
Disturbance of known or unidentified items or places of non-Aboriginal heritage significance.	possible	4	High			unlikely	3	Low	
Impacts to heritage items from vibration during construction.	possible	4	High			unlikely	3	Low	
Design that detracts from the heritage significance of nearby items.	unlikely	3	Low			unlikely	2	Low	
Impacts on listed heritage items or items of heritage values due to demolition, altered historic arrangements and access, visual amenity, landscape and vistas, curtilage, subsidence and architectural noise treatment.	unlikely	3	Low			unlikely	2	Low	
Aboriginal heritage									
Potential impacts on registered Aboriginal heritage items/sites in the proposal site.	likely	4	Very High	Prosecutions, infringements, permanent damage/harm to heritage items, delays in approval to recommence, additional archaeological salvage/assessments, approvals	Stage 1 of the Project will implement the mitigation measures contained within the following management plans that will manage risk associated with these risks and hazards during the proposed works. These plans include: - Heritage Management Plan (C23) - Aboriginal Cultural Values Plan - Unexpected and Incidental Finds Protocol Other key items include (but not limited to): - Physical delineation, including fencing / barriers, no-go/exclusion zones of listed Aboriginal heritage items. - Assessments undertaken to ensure proposed works will not impact on listed Aboriginal heritage sites. - Should a potential UNX heritage artefact be discovered, all works are to cease and the Unexpected and Incidental Finds Protocol will be implemented. - Training and awareness to the workforce via site inductions, toolboxes and pre-starts - Detailed design to consider avoiding areas as identified. - Stakeholder consultation, including with RAPs.	unlikely	3	Low	
Impacts on unrecorded Aboriginal sites and/or areas of archaeological sensitivity or cultural value.	possible	4	High			possible	2	Low	
Impacts on areas predicted to have moderate to high archaeological potential.	possible	4	High			possible	2	Low	
Indirect impacts on registered Aboriginal sites outside the proposal site by the movement of vehicles and/or construction machinery.	possible	3	Medium			possible	2	Low	
Indirect impacts to Aboriginal heritage items from construction of the project such as visual setting or settlement.	possible	2	Low			unlikely	2	Low	
Biodiversity									
Clearing of native vegetation resulting in loss of fauna habitat, habitat fragmentation and loss of connectivity.	likely	4	Very High		Stage 1 of the Project will implement the mitigation measures contained within the following management plans that will manage risk associated with these risks and hazards during the proposed works. These plans include: - Biodiversity Management Plan (C20) - Biosecurity Management Plan (C25). - Soil & Water Management Plan (C22) - Groundwater Mitigation & Management Plan (GW-4) - Unexpected and Incidental Finds Protocol Other key items include (but not limited to): - Delineation and fencing for areas containing native vegetation, TEC, paddock trees, fauna habitat, waterways/riparian zones or any other relevent environmentally sensitive areas. - No clearing or grubbing of native vegetation	unlikely	2	Low	
Clearing greater than design allowances (although still approved project boundaries) Impacts to native vegetation from earthworks and clearing	possible	4	High			rare/remote	1	Low	
Direct impacts on listed threatened flora species and endangered terrestrial ecological populations and communities.	likely	4	Very High			unlikely	2	Low	

Impacts on potential habitat for listed threatened fauna species.	likely	4	Very High	Prosecutions, fines, damage to flora communities and habitat for fauna, physical loss of fauna species, unnapproved clearing, exceedance of clearing limits, fauna mortality/injury, rework, delays, failed rehabilitation	- Training and awareness to the workforce via site inductions, toolboxes and pre-starts - Management of weeds, pests and pathogens incldluing vehicle/equipment hygiene - Ensure vehicles, plant and equipment are clean prior to arriving/departing site and do not contain excessive mud, dirt, weed, seed or other organic material. - Comply with any biosecurity/weed agreements specific to the property in accordance with the Individual Property Plans and landowner agreements. - Sensitive Area Plans to contain locations of environmentall sensitive areas (native veg, TEC etc.) and will be briefed to site staff and available onsite. - Ecologist to be on-call should there be any unexpected fauna finds or other ecological issue identified. - Stop works where unexpected threatened species or fauna interactions occur and implement the Unexpected and Incidental Finds Protocol - Implement appropriate ERSED controls as per the PESCP to minimse impacts to waterways, areas of vegetation and aquatic fauna/flora	unlikely	2	Low	
Increased impacts from pest plants and animals during construction from movement of vehicles, machinery and materials in and out of site.	possible	4	High			possible	2	Low	
Indirect impacts on fauna species due to increased dust, sedimentation, and erosion, noise, light and contamination pollution.	possible	4	High			possible	2	Low	
Native fauna mortality from vehicle strikes and during clearing	likely	3	High			possible	2	Low	
Fauna Interaction	possible	4	High			possible	2	Low	
Potential impacts on groundwater dependent ecosystems.	possible	3	Medium			possible	2	Low	
Potential impacts on aquatic ecology and threatened species, including as a result of removal of riparian vegetation and fish passage blockages during construction of waterway crossings.	likely	4	Very High			rare/remote	1	Low	
Water quality impacts and changes to flow regimes, including through the removal of farm dams, affect aquatic ecosystems.	likely	3	High			possible	2	Low	
Potential impacts on protected and sensitive lands.	likely	3	High			possible	2	Low	
Unsuccessful rehabilitation of works	likely	3	High			rare/remote	3	Low	
Soils landform and geology									
Erosion as a result of the disturbance of soils during construction, particularly in soil landscapes characterised by dispersive soils, given their susceptibility to erosion.	possible	2	Low	Loss of soil, degredation of soil, sedimentation in waterways/drains, fines/regulatory action, delays/rework, unstable landforms	Stage 1 of the Project will implement the mitigation measures contained within the following management plans that will manage risk associated with these risks and hazards during the proposed works. These plans include: - Soil & Water Management Plan (C22) - Contaminated & Hazardous Material Management Plan (SC-7) - Geotechnical and DSI reports and excavation permits. - Waste Management Plan (WM-2) - SEPs/ERSED plans Other key items include (but not limited to): - PESCP will be implemented to manage ERSED risk - Topsoil to be apppropriately stockpiled to ensure quality is not reduced.	possible	1	Low	
Disturbance of soils and subsequent loss or degradation of soil quality during earthworks at construction compound site.	possible	2	Low			possible	1	Low	
Disturbance of landforms during earthworks reducing the stability of landforms.	possible	3	Medium			possible	2	Low	
Resource and Waste									
Generation of excess spoil that cannot be reused onsite (unsuitable for reuse or insufficient space) and needs to be disposed of.	possible	3	Medium	Cost, loss of reuse potential and impact to sustainability outcomes for the project (ISC rating), additional resource consumption, regulatory breaches/action, pollution, illegal disposal	Stage 1 of the Project will implement the mitigation measures contained within the following management plans that will manage risk associated with these risks and hazards during the proposed works. These plans include: - Contaminated & Hazardous Material Management Plan (SC-7) - Waste Management Plan (WM-2) - Sustainability Management Plan - Soil & Water Management Plan (C22) - Biodiversity Management Plan (C20) Other key items include (but not limited to): - Maximise reuse/recycle of waste - Consider use of recycled materials in construction process - Maximise reuse of waste on site and minimise waste to landfill - Ensure all waste is considered and tabulated in a waste register and segregate waste wherever possible and removed to licensed waste contractor. - Use licensed contractors to remove waste and investigate options for onsite reuse and recycling e.g. reuse of spoil. - Undertake site inspections to ensure that waste is disposed into correct skips and inspections of waste carriers to ensure that they are following their duty of care. - Waste to leave site to a facility licensed to accept it only or with an approved Section 143 notice. - Waste classification to occur and disposal at appropriately licensed waste facilities.	possible	2	Low	
Inappropriate management of waste generated during construction, resulting in environmental, health and amenity impacts, including contamination, water quality impacts, odour and dust.	possible	2	Low			possible	1	Low	
Inappropriate management of waste generated during construction, resulting in excessive waste being directed to landfill.	possible	3	Medium			possible	2	Low	
Increased resource consumption.	possible	2	Low			possible	1	Low	
Sustainability, including Climate change and GHG									
Hazard, potential consequences and mitigation strategies related to the Sustainability discipline, including climate change and greenhouse gas emissions, are detailed in a separate risk register.									
Land Use									
Effects on access to and within properties as a result of changes to private access roads and internal access arrangements.	Almost certain	4	Very High		Stage 1 of the Project will implement the mitigation measures contained within the following management plans that will manage risk associated with these risks and hazards during the proposed works. These plans include:	unlikely	2	Low	

Indirect impacts on agricultural land use/production and livestock from construction activities, including impacts from changes to access, noise, and air pollution.	likely	2	Medium	Community complaints, unnapproved access to private property, impacting farm operations/access, impacting railway line operations	- Noise & Vibration Management Plan (C19) - Biosecurity Management Plan - Community Consultation Strategy (B1) - Air Quality Management Plan (AQ-1) - Traffic & Transport Access Management Plan (C21). - Individual Property Plan Other key items include (but not limited to): - Approval/permission to use private access roads will be obtained prior to using those access roads. - The works will not block, impede or otherwise affect property access or farm operations unless previously agreed by the landowner, and documented in the Individual Property Plans (IPP). - Onsite designated carparks will be appropriately sized to handle the capacity of vehicles required for the possession. - Community notifications of the possession works will be undertaken in accordance with the CCS. This may include site VMS boards to notify road users.	unlikely	2	Low	
Temporary changes to land use as a result of the proposal's land requirements during construction—temporary leasing of additional areas outside the operational footprint to facilitate construction negatively affects the availability of land for other uses.	Almost certain	3	High			unlikely	2	Low	
The movement of construction machinery and materials introduces biosecurity risks, including the spread of weeds.	possible	3	Medium			possible	2	Low	
Effects on access to and along travelling stock reserves.	possible	2	Low			unlikely	2	Low	
Effects on mining leases and licences, such that viability is affected.	unlikely	2	Low			unlikely	2	Low	
Impacts on agricultural land use from construction activities including impacts from reduced access, noise, and air pollution.	likely	2	Medium			unlikely	2	Low	
Impacts on land use as a result of property acquisition.	likely	3	High			possible	2	Low	
Impacts on other infrastructure during construction including utilities and existing rail lines.	possible	2	Low			unlikely	2	Low	
Socio-Economic									
Potential constraint in local short-term accommodation market (during site visits by ARTC-managed technical specialists), restricting access for other community needs.	possible	3	Medium	Community complaints, unnapproved access to private property, impacting farm operations/access, impacting railway line operations, impacts to the community, increased pressure on resources in adjacent towns, increased traffic on local roads, antisocial behaviour.	Stage 1 of the Project will implement the mitigation measures contained within the following management plans that will manage risk associated with these risks and hazards during the proposed works. These plans include: '-Social Impact Management Plan (E109) - Noise & Vibration Management Plan (C19) - Temporary Workforce Accommodation Facility Management Plan (A18) - Community Consultation Strategy (B1) - Air Quality Management Plan (AQ-1) - Traffic & Transport Access Management Plan (C21). Other key items include (but not limited to): - Workforce will stay at the Temporary Workforce Accommodation Camp minimise impacts to the local short-term accommodation market. Should the TWAC not be approved prior to works only project workers essential to the Stage 1 works will utilise local short-term accommodation to reduce impacts as far as practicable. - The Workforce Code of Conduct (CoA E117) will be prepared and implemented for all personnel working or visiting the Project. - Continuous awareness and training of socio-economic impacts and mitigation measures will be included in the site induction, toolbox talks and pre-starts as required.	unlikely	1	Low	
Restriction on people's ability to move around their community as a result of traffic restrictions and delays at level crossings.	likely	2	Medium			unlikely	1	Low	
Decreased perceptions of safety resulting from anti-social behaviour in local townships due to temporary construction workforce.	possible	3	Medium			unlikely	1	Low	
Restricted access to community services and facilities due to increased demand from the construction workforce.	possible	4	High			unlikely	2	Low	
Impeded access across the rail corridor for emergency services, specifically during times of high bushfire risk.	possible	4	High			unlikely	1	Low	
Stress and anxiety resulting from potential harm to identified sites of Aboriginal cultural heritage around the proposal site.	unlikely	5	High			unlikely	2	Low	
Adverse changes to community cohesion and perception of safety in relation to anti-social behaviour exhibited by temporary construction workforce.	possible	3	Medium			unlikely	2	Low	
Adverse mental health impacts predominantly for directly affected landowners as a result of the land access and acquisition process of negotiations over a long period of time.	possible	4	High			unlikely	2	Low	
Adverse mental health impacts (frustration, impatience) and cessation engagement with ARTC due to protracted design planning process.	possible	4	High			unlikely	2	Low	
Changes to rural amenity character, which may affect people's sense of place, including adverse changes to existing visual amenity for three residential sensitive receivers in the local study area.	likely	3	High			unlikely	1	Low	
Visual Amenity									
Light impacts from out-of-hours work during construction.	possible	2	Low	Community complaints, loss of visual amenity in the area	Stage 1 of the Project will implement the mitigation measures contained within the following management plans that will manage risk associated with these risks and hazards during the proposed works. These plans include: '-Social Impact Management Plan (E109) - Noise & Vibration Management Plan (C19) - Temporary Workforce Accommodation Facility Management Plan (A18) Other key items include (but not limited to): - Temporary lighting towers will be positioned in a way which minimises light spill and subsequent impacts to sensitive receivers.	unlikely	2	Low	
Temporary visual impacts on sensitive visual receivers in the vicinity of construction work and from areas with views of the proposal site.	possible	2	Low			unlikely	2	Low	
Adverse impacts on landscape character during construction, particularly in greenfield areas.	possible	2	Low			unlikely	2	Low	
Health and Safety									
Refer to the Project Workplace Risk Assessment (WRA) for health and safety risks and mitigation.									

JHG PROJECT RATING MATRIX

JH-APP-RCC-003-02
Project Risk and Opportunity Rating Matrix

CONSEQUENCE - RISK					
RATING	**1**	**2**	**3**	**4**	**5**
Workplace Health and Safety	* First aid injury, and/or * Minor safe working issues	* Medical treatment, and/or * Moderate safe working breach likely to impact on operations	* Serious medical / hospital treatment resulting in need alternate working or resulting in lost time injury, and/or * Significant safe working breach with actual impact on operations	* Serious or permanent Injury, and/or * Significant safe working beach with immediate impact on operations on one or more worksites	* 1 or more fatalities, and/or * Major breach of safe working with immediate and extensive impact on one or more worksites
Budget ($AUD)	<$<enter> **(<1%)** over project budget	$<enter> to $<enter> **(1% to 5%)** over project budget	$<enter> to $<enter> **(3% to 5%)** over project budget	$<enter> to $<enter> **(5% to 10%)** over project budget	>$ <enter> **(>10%)** over project budget
Time Schedule (Target Program)	< <enter> days / weeks / months **(<1% of program)** over the critical path program	<enter> to <enter> days / weeks / months **(1% to 2% of program)** over the critical path program	<enter> to <enter> days / weeks / months **(2% to 3% of program)** over the critical path program	<enter> to <enter> days / weeks / months **(3% to 5% of program)** over the critical path program	><enter> days / weeks / months **(>5% program)** over the critical path program
Environment & Natural Resources	* Low severity environmental impact(s) or impact on natural resources availablity that are promptly reversible and affected area is within the site boundary	* Nuisance or low severity environmental impact(s) or impact on natural resources availablity that are promptly reversible and affected area is outside the site boundary	* Moderate severity environmental impact(s) or impact on natural resources availablity where the affected area is within the site boundary	Moderate severity environmental impact(s) or impact on natural resources availablity where the affected area is outside the site boundary	High severity environmental impact(s) or impact on natural resources availablity at local scale significance
Quality	* Rework Costs less than or equal to 20K	* Rework Costs less than or equal to 100K but greater than 20K	* Rework Costs less than or equal to 250K but greater than 100K	* Rework Costs less than or equal to 5% contract value but greater than 250K	Rework Costs greater than 5% of contract value
Reputation / Community / Media	* Public concern restricted to local complaints * Lack of contribution to the community	* Minor, adverse local public or media attention and complaints * Employees warned only * Minor change in community amenity values	* Attention from media and/ or heightened concern by local community * Stakeholder action will disrupt planned project activities * Disciplinary action may be taken * Temporary reduced community access to services or employment	* Significant adverse national media / public / NGO attention * Considerable and prolonged adverse community impact and dissatisfaction publicity expressed * Stakeholder action will delay achievement of major elements of the Project * Permanently reduced community access to services or employment	* Serious public or media outcry with international coverage * Significant adverse community impact & condemnation * Stakeholder action will prevent achievement of the project objectives * Reduced cohesion of community
Governance / Legal / Regulatory	* Very minor technical breach of regulation or policy or code of ethics. No fine / penalty	* Minor legal issues, non-compliances and breaches of regulation, policy or code of ethics * Enforceable Undertaking	* Moderate breach of regulation, policy or code with investigation or report to authority * Moderate legal proceedings initiated * Several Improvement Notices	* Significant breach of regulation, policy or code with fine or other regulatory action. Significant litigation / legal action * Shut down of part of a project due to regulatory breach * Prohibition Notice	* Major breach of regulation, policy or code with fine * Major litigation * Major investigation by regulatory body * Prosecution / Accreditation loss
Management Impact	* Impact of event absorbed through normal activity	* Will require some local management attention over several days	* Significant event that can be managed with careful attention, will take some project managers much time for several weeks * Local operation of contingency plan	* Major event that requires the implementation of crisis and contingency plans at a project level, regional area or support function (DRP) * Will require the involvement of senior managers and will take up the time of project managers for several weeks	* Critical event or disaster with significant impact on John Holland that requires considerable senior management time to handle over several months * Full implementation of an John Holland's crisis management plan for days to weeks

PROBABILITY OR CHANCE	QUALITATIVE ASSESSMENT	RECURRENCE TIMEFRAME
≥ 90%	Almost certain to occur during the project / contract life	Less than "Monthly"
51% to 89%	Considered likely to occur during the project / contract life	"Monthly" to "Yearly"
30% to 50%	Considered a possible occurrence during the project / contract life	Between 2 and 5 years
5% to 29%	Considered unlikely to occur during the project / contract life	Between 5 and 20 years
< 5%	Considered a rare occurrence to happen during the project / contract life	Greater than every 20 years

LIKELIHOOD	CONSEQUENCE					
	RATING	Not significant	Minor	Moderate	Major	Extreme
	ALMOST CERTAIN	Medium	Medium	High	Very High	Very High
	LIKELY	Low	Medium	High	Very High	Very High
	POSSIBLE	Low	Low	Medium	High	High
	UNLIKELY	Low	Low	Low	Medium	High
	RARE/REMOTE	Low	Low	Low	Low	Medium

CONTROL EFFECTIVENESS	GUIDANCE
Satisfactory	Nothing more to be done except review and monitor the current controls. To the extent that is reasonably achievable, controls are well designed for the risk (i.e.
Improving	Controls are designed correctly, are in place and operating reasonably effectively. Some minor/ isolated exceptions may exist, however do not represent a systematic weakness in operating effectiveness. Some more work to be done to improve the overall
Partial	While the design of controls may be largely correct in that they treat most of the root causes of the risk,
Poor	Significant control gaps. Either controls do not treat root causes or they do not operate at all effectively. Controls, if they exist are just reactive rather than proactive.
Nil	Virtually no credible control. Management has no confidence that any degree of control is being achieved due to poor control design and/or very limited operational effectiveness.

Residual risk / opp Rating	Suggested action	Timing of status report and management plans	Authority to accept or tolerate risk.
A	Take action to eliminate or implement additional controls to reduce it to acceptable level (ALARP/SFAIRP). "WHS / Environmental risks" the task or activity must not be performed. An alternative solution must be found.	Notify as soon as practicable, normally with 24 hours. Manage and re-evaluate risk / opportunity to allow Business Unit reporting monthly Notify John Holland's relevant Board Committee and CEO / CFO	John Holland CEO / COO
B	Implement additional controls to reduce it to ALARP/SFAIRP. "WHS / Environmental risks - The activity or task must not be performed without the explicit concurrence of the Project Director / Project Manager.	Notify as soon as practicable, normally within 72 hours. Manage and re-evaluate risk / opportunity to allow project reporting monthly Notify COO / Business Group EGM / CFO	John Holland Regional Gen Mgr or Corporate EGM / CFO as appropriate. EGM, Project Director
C	Implement additional controls reduce it to ALARP/SFAIRP where it is cost-effective to do so. "Onsite activities" – must not commence without Site Management review	Manage and re-evaluate risk / opportunity to allow project reporting monthly	John Holland Operational / Construction / Project Manager / Director
D	Implement additional controls to reduce to ALARP / SFAIRP (may be tolerable).	Manage and re-evaluate risk / opportunity to allow project reporting monthly	John Holland Team Leader
E	Lower priority (likely to be tolerable).	Monitor, manage and carryout activity in accordance with identified controls	John Holland Supervisor

Hierarchy of Controls