

JOHN HOLLAND

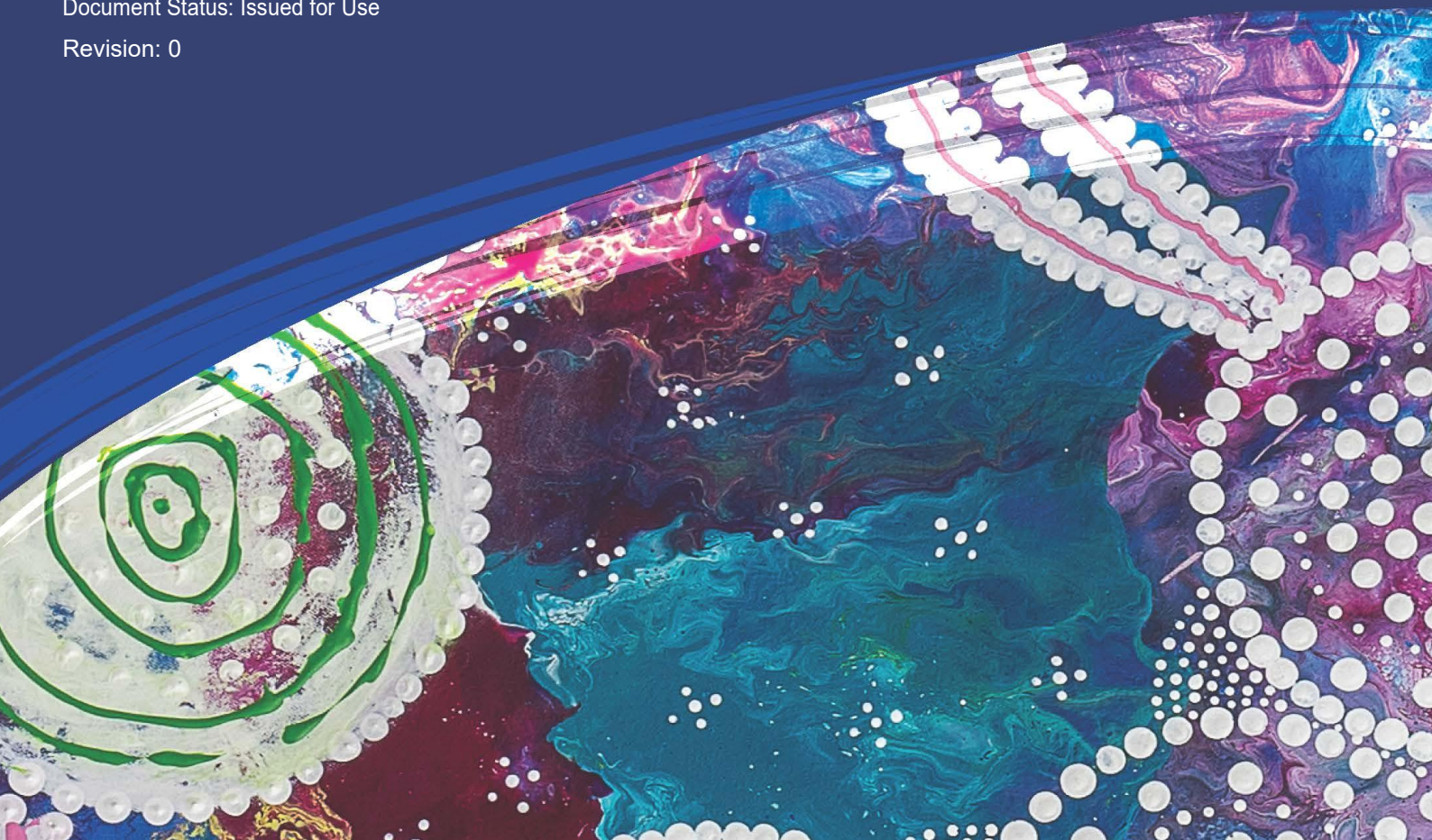
INLAND RAIL
ILLABO TO STOCKINBINGAL PROJECT

Construction Environmental Management Plan

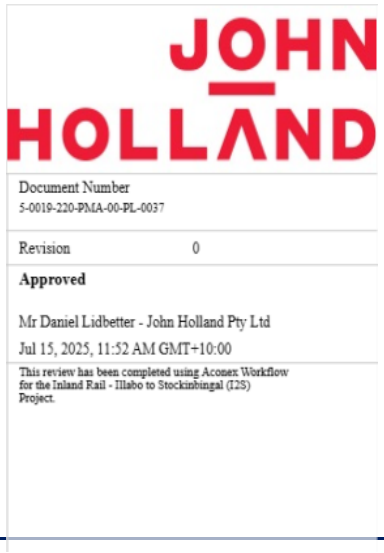
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Prepared By	Scott Grunsell and Isabella Anderson	
Document Owner	Daniel Lidbetter (Approvals Manager)	
	REVIEWED BY	**APPROVED BY**
Name	Daniel Lidbetter	Andy Robertson
Title	Environmental Approvals Manager	Environment and Sustainability Manager
Signature **Date**		

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1 Revisions and Distribution

1.1 Revisions

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

1.2 Distribution

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

Client’s Representative	Conrad Strachan
Project Director	Rob Pitt
Rail Systems Manager	Andy Buchanan
Environmental Approval Manager	Daniel Lidbetter
Environmental Representative	Ricardo Prieto-Curiel
Environment & Sustainability Manager	Andy Robertson
Quality Manager	Shane Aberdeen
Project Personnel	Aconex Distribution

2 References, Definitions and Abbreviations

2.1 Compliance Roadmap

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

This Construction Environmental Management Plan (CEMP) provides a consistent approach to address the requirements of both the State and Federal approvals in a single document. The requirements of the State and Federal conditions relevant to the development of this CEMP are shown in Section 2.1.1 and 2.1.2. A cross reference is also included to indicate where each Conditions of Approval (CoA) is addressed in this Plan or other Project management documentation.

2.1.1 Federal Conditions of Approval

Table 2-1 provides the Commonwealth CoA relevant to the Project and CEMP (EPBC-2018/8233).

Table 2-1 Commonwealth CoA relevant to the CEMP (EPBC 2018/8233)

No.	Requirements	Timing	Plan Reference
Part A – Avoidance, mitigation, and compensation conditions			
Clearing Limits			
1	The approval holder must not clear and construct outside of the Action area unless either of the following are met: a) such clearing and construction is limited to locations with no habitat of protected matters; b) such clearing and construction is limited to locations required to facilitate minor design adjustments and only as allowable under the NSW Approval, and the total extent of clearing for the Action will not exceed the limits specified in condition 2 of this approval and specified in condition E25 of the NSW Approval.	Prior to construction Construction	Biodiversity Management Sub-plan
2	The approval holder must not clear more than: a) 16.77 hectares (ha) of Grey Box Woodlands b) 17.48 ha of Box-Gum Grassy Woodlands	Prior to construction Construction	Biodiversity Management Sub-plan
3	To avoid and mitigate harm to protected matters as a result of the Action, the approval holder must comply with conditions E23, E24, E25 and E27 of the NSW approval, to the extent that they relate to protected matters.	Prior to construction Construction	This CEMP Biodiversity Management Sub-plan
4	To avoid and mitigate harm to protected matters as a result of the Action, the approval holder must comply with conditions E31, E32 and E33 of the NSW Approval.	Prior to construction Construction	This CEMP Biodiversity Management Sub-plan
Construction Environmental Management Plan			
5	To avoid and mitigate harm to protected matters as a result of the Action, the approval holder must comply with conditions C17 and C20 of the NSW Approval.	Prior to construction Construction	This CEMP Biodiversity Management Sub-plan

No.	Requirements	Timing	Plan Reference
6	The approval holder must ensure that, in complying with condition C20(c) of the NSW Approval, the weed, pest and pathogen management plan: a) Prevents both the introduction of new weeds and spread of weeds, as a result of the Action, into any retained areas of Grey Box Woodland and Box-gum Grassy Woodlands within and immediately adjacent to the Action Area; and b) addresses and incorporates appropriate actions and objectives identified in the relevant TAPs	Prior to construction Construction	Appendix A1 – Legal Requirements Biodiversity Management sub-plan Biosecurity Management sub-plan
Operational Environmental Management Plan			
7	To avoid and mitigate harm to protected matters as a result of the action, the approval holder must comply with conditions D1 to D4 (inclusive) of the NSW Approval, to the extent that they relate to protected matters.	Operation	OEMP
Operational Monitoring Programs			
8	To avoid and mitigate harm to protected matters as a result of the action, the approval holder must implement conditions D5 to D12 (inclusive) of the NSW Approval, where they relate to protected matters.	Operation	Operational Monitoring Report
Fauna Connectivity Strategy			
9	To mitigate impacts to protected matters as a result of the Action, the approval holder must comply with conditions E40 to E45 (inclusive) of the NSW Approval, to the extent that they relate to protected matters.	Prior to construction	Biodiversity Management sub-plan
Additional Box-Gum Woodland Measures			
10	If the Biodiversity Stewardship Agreement (BSA) as outlined in condition E34 of the NSW Approval is approved, the approval holder must comply with conditions E34 to E37 (inclusive) of the NSW Approval.	Application of BSA within 12 months of the approval Conditions E34-E37 timing as per Table 4 below.	Biodiversity Management sub-plan Other plans as discussed per conditions E34 -E37 in Table 4
Biodiversity Offsets			
11	Prior to the commencement of the Action, to compensate for the residual significant impacts of the Action on relevant protected matters, the approval holder must retire the number and types of biodiversity credits in accordance with conditions E26 and E28 of the NSW Approval.	Prior to construction	Credit Retirement Reports
12	The approval holder must not commence the Action until the biodiversity credits for the protected matters have been retired in accordance with condition E28 of the NSW Approval.	Prior to construction	Credit Retirement Reports

No.	Requirements	Timing	Plan Reference
13	Within 5 business days of retiring any biodiversity credits in respect of protected matters, the approval holder must submit evidence in writing to the department demonstrating that the biodiversity credits have been retired in accordance with condition E28 of the NSW Approval and specify, in relation to each relevant protected matter, how many biodiversity credits were retired.	Prior to construction	Credit Retirement Reports
Part B – Administrative conditions			
Submission and Publication of Plans			
14	Wherever these conditions require the approval holder to submit any plan to the department, all such plans must be submitted to the department electronically.	Prior to construction Construction Pre-operation Operation	Section 9.5
15	Unless otherwise agreed to in writing by the Minister, the approval holder must publish each plan on the website within 15 business days of the date: a) the plan is approved by the Minister in writing, if the plan requires the approval of the Minister, or b) the plan is approved by the NSW Planning Secretary as required under a NSW approval condition which must be complied with in accordance with these EPBC Act conditions.	Prior to construction Construction Pre-operation Operation	Section 7.6.4
16	The approval holder must keep all plans published on the website, in a format that is easily accessible and downloadable, from the first date which that plan must be published and until the expiry date of this approval, or as otherwise requested in writing by the department. This requirement applies to all current and superseded versions of plans.	Prior to construction Construction Pre-operation and operation as applicable	Section 7.6.4
17	The approval holder is required to exclude or redact sensitive biodiversity data from any version of a plan before that plan is published on the website or otherwise provided to a member of the public. If sensitive biodiversity data is excluded or redacted from a plan, the approval holder must notify the department in writing what exclusions and redactions have been made in the version published on the website.	Prior to submission of applicable plans	Section 7.6.4
Modifications to State or Territory Approval			
18	The approval holder must notify the department in writing of any proposed change to the NSW Approval that may relate to protected matters within 2 business days of formally proposing such a change.	Prior to construction Construction Pre-operation and operation as applicable	Section 9.5

No.	Requirements	Timing	Plan Reference
19	The approval holder must notify the department in writing of any change to the NSW Approval conditions that may relate to protected matters, within 5 business days of such a change to conditions coming into effect. Such notification must include a copy of the changed NSW Approval conditions showing what changes have been made.	Prior to construction Construction Pre-operation and operation as applicable	Section 9.5
Commencement of the Action			
20	The approval holder must notify the department electronically of the date of commencement of the Action, within 5 business days following commencement of the Action.	Prior to construction Construction Pre-operation and operation as applicable	Section 9.5
21	The approval holder must not commence the Action later than 5 years after the date of this approval decision.	Prior to construction Construction Pre-operation and operation as applicable	Section 9.5
22	The approval holder must notify the department electronically of the date of commencement of operation within 5 business days following commencement of operation.	Prior to construction Construction Pre-operation and operation as applicable	Section 9.5
Compliance Records			
23	The approval holder must maintain accurate and complete compliance records and document the procedure for recording and storing compliance records.	Prior to construction Construction Pre-operation and operation as applicable	Section 9.5
24	If the department makes a request in writing, the approval holder must provide electronic copies of compliance records to the department within the timeframe specified in the request. Note: Compliance records may be subject to audit by the department, or by an independent auditor in accordance with section 458 of the EPBC Act, and/or be used to verify compliance with the conditions. Summaries of the results of an audit may be published on the department's website or through the general media.	Prior to construction Construction Pre-operation and operation as applicable	Section 9.5
25	The approval holder must ensure that any monitoring data, surveys, maps, and other spatial and metadata required under the conditions of this approval are prepared in accordance with the Guidelines for biological survey and mapped data, Commonwealth of Australia 2018, or as otherwise specified by the Minister in writing.	Prior to construction Construction Pre-operation and operation as applicable	Section 9.5
26	The approval holder must ensure that any monitoring data, surveys, maps, and other spatial and metadata required under the conditions of this approval are prepared in accordance with the Guide to providing maps and boundary data for EPBC Act projects, Commonwealth of Australia 2021, or as otherwise specified by the Minister in writing.	Prior to construction Construction Pre-operation and operation as applicable	Section 9.5

No.	Requirements	Timing	Plan Reference
27	The approval holder must submit all monitoring data, surveys, maps, other spatial and metadata and all species occurrence record data (sightings and evidence of presence) electronically to the department within 20 business days of the next anniversary of the date of this approval decision except where otherwise specified in a plan.	Prior to construction Construction Pre-operation and operation as applicable	Section 9.5
Annual Compliance Reporting			
28	The approval holder must prepare a compliance report for each Annual Compliance Report period (ACR period).	Prior to construction Construction Pre-operation and operation as applicable	Annual Compliance Report Section 9.3
29	The approval holder must ensure each compliance report includes: a) accurate and complete details of compliance and any non-compliance with: i) each condition imposed under the NSW approval, if a condition attached to this approval decision requires compliance with that NSW approval condition, ii) each condition attached to this approval decision, and iii) all commitments made in each plan, b) a schedule of all plans in effect in relation to these conditions during the ACR period, c) accurate and complete details of how each plan was implemented during the ACR period, and d) if any incident occurred, accurate and complete details of each incident.	Prior to construction Construction Pre-operation and operation as applicable	Annual Compliance Report Section 9.3
30	The approval holder must ensure each compliance report is consistent with the Annual Compliance Report Guidelines, Commonwealth of Australia 2023.	Prior to construction Construction Pre-operation and operation as applicable	Annual Compliance Report Section 9.3
31	The approval holder must, within 20 business days following the end of each ACR period, in a format that is easily accessible and downloadable, publish on the website: a) each compliance report, and b) a shapefile showing all clearing of protected matters, and their habitat, undertaken within the ACR period.	Prior to construction Construction Pre-operation and operation as applicable	Annual Compliance Report Section 9.3

No.	Requirements	Timing	Plan Reference
32	The approval holder must: a) Exclude or redact sensitive biodiversity data from each compliance report and shapefile published on the website or otherwise provided to a member of the public. b) b) If sensitive biodiversity data is excluded or redacted from a version of a compliance report published or otherwise provided to a member of the public, submit the full compliance report to the department within 5 business days of its publication on the website and notify the department in writing what exclusions and redactions have been made in the version published on the website or otherwise provided to a member of the public. c) If sensitive biodiversity data is excluded or redacted from a version of a shapefile published or otherwise provided to a member of the public, submit the full shapefile to the department within 5 business days of its publication on the website and notify the department in writing what exclusions and redactions have been made in the version published on the website or otherwise provided to a member of the public.	Prior to construction Construction Pre-operation and operation as applicable	Annual Compliance Report Section 9.3
33	The approval holder must notify the department electronically, within 5 business days of each date of publication that the compliance report has been published on the website. In this notification, the approval holder must provide the department with the web address for where the compliance report and related shapefile are published on the website.	Prior to construction Construction Pre-operation and operation as applicable	Annual Compliance Report Section 9.3
34	The approval holder must keep each compliance report and related shapefile published on the website from the first date which that compliance report must be published and until the expiry date of this approval. Note: Compliance reports may be published on the department's website.	Prior to construction Construction Pre-operation and operation as applicable	Annual Compliance Report Section 9.3
Reporting Non-Compliance			
35	The approval holder must notify the department electronically, within 2 business days of becoming aware of any incident. The approval holder must specify in each notification: a) any condition or commitment made in a plan which has not been, or may have not been, complied with, b) a short description of the incident, and c) the location (if applicable, including co-ordinates), date and time of the incident.	Prior to construction Construction Pre-operation and operation as applicable	Section 9.3

No.	Requirements	Timing	Plan Reference
36	The approval holder must provide to the department in writing, within 12 business days of becoming aware of an incident, the details of that incident. The approval holder must specify: a) all corrective measures and investigations which the approval holder has already taken in respect of the incident, b) the potential impacts of the incident, c) the method and timing of any corrective measures that the approval holder proposes to undertake to address the incident, and d) any variation of these conditions or revision of a plan that will be required to prevent recurrence of the incident and/or to address its consequences.	Prior to construction Construction Pre-operation and operation as applicable	Section 8.2 Section 9.3
Independent Audit			
37	The approval holder must ensure that an independent audit of compliance with the conditions is conducted for every audit period.	Prior to construction Construction	Section 9.4
38	The approval holder must submit details of the proposed independent auditor and their qualifications to the department within 10 business days following the end of each audit period.	Prior to construction Construction	
39	The approval holder must ensure the scope of each independent audit is sufficient to determine the compliance status for each condition of approval, and each commitment made in each plan.	Prior to construction Construction	
40	The approval holder must ensure the criteria for each independent audit and the undertaking of each independent audit are consistent with the Independent Audit and Audit Report Guidelines	Prior to construction Construction	
41	The approval holder must submit an audit report to the department for written agreement from the department within 3 months following the end of each audit period, or as otherwise directed by the Minister in writing	Prior to construction Construction	
42	The approval holder must ensure each audit report is completed to the satisfaction of the Minister and is consistent with the Independent Audit and Audit Report Guidelines to the extent that the Guidelines are consistent with these conditions	Prior to construction Construction	
43	The approval holder must publish each audit report on the website, in a format that is easily accessible and downloadable, within 10 business days of the date the department agrees to that audit report in writing	Prior to construction Construction	

No.	Requirements	Timing	Plan Reference
44	The approval holder must notify the department within 5 business days of the date the audit report is published on the website. In this notification, the approval holder must provide the department with the web address for where the audit report is published on the website.	Prior to construction Construction	
45	The approval holder must keep each audit report published on the website from the first date which that audit report must be published and until the expiry date of this approval.	Prior to construction Construction	
Completion of the Action			
46	Within 20 business days after the completion of the Action, and, in any event, at least 20 business days before this approval expires, the approval holder must notify the department electronically of the date of completion of the Action and provide completion data. The approval holder must submit any spatial data that comprises completion data as a shapefile.	Construction (20 days before the EPBC approval expires)	Section 9.5
47	The approval holder must notify the department electronically 60 business days prior to the expiry date of this approval, that the approval is due to expire. Note: Section 145C of the EPBC Act entitles the approval holder to request an extension to the period of effect of this approval.	Construction (60 days prior to the expiry date of the EPBC approval)	Section 9.5

2.1.2 State Conditions of Approval

Table 2-2 provides the CoA relevant to the Project and CEMP (SSI-9406) under the *NSW Environmental Planning and Assessment Act 197*9 and Table 2-3 and Table 2-4 provides the conditions required under the *Crown Land Management Act 2016 (*Licence Number RN-639859).

Table 2-2 NSW CoA relevant to the CEMP (SSI-9406)

Ref	Issue	Measure / Requirement	Timing	Document Reference
PART A ADMINISTRATIVE CONDITIONS				
GENERAL				
A1	General	The Proponent must carry out the CSSI in accordance with the terms of approval and generally in accordance with the: a) Inland Rail – Illabo to Stockinbingal Environmental Impact Statement (ARTC 2022); b) Illabo to Stockinbingal Project Response to Submissions (ARTC 2023) c) Response to Submissions – Appendix E - Biodiversity Development Assessment Report version 12 (IRDJV, June 2024) d) I2S – Mitigation Measures (Inland Rail, April 2024)	Prior to construction During construction Operation	This CEMP and relevant Sub-plans

Ref	Issue	Measure / Requirement	Timing	Document Reference
		e) Illabo to Stockinbingal (SSI-9604) Additional and Appropriate Measures for Box Gum Woodland Impacts (Inland Rail, June 2024); and f) Technical and Approvals Consultancy Services: Illabo to Stockinbingal – Box Gum Woodland Gum Flat Rehabilitation Opportunity (IRDJV, June 2024).		
A2	General	The CSSI must be carried out in accordance with all procedures, commitments, preventative actions, performance criteria and mitigation measures set out in accordance with the documents listed in Condition A1 unless otherwise specified in, or required under, this approval.	Prior to construction During construction Operation	This CEMP and relevant Sub-plans
A3	General	In the event of an inconsistency between: a) the conditions of this approval and any document listed in Condition A1(a) to (f) inclusive, the conditions of this approval will prevail to the extent of the inconsistency; and b) any document listed in Condition A1(a) to (f) inclusive, the most recent document will prevail to the extent of the inconsistency. Note: For the purpose of this condition, there will be an inconsistency between a term of this approval and any document if it is not possible to comply with both the term and the document.	Prior to construction During construction Operation	This CEMP and relevant Sub-plans
A4	General	The Proponent must comply with the written requirements or directions of the Planning Secretary, including in relation to: a) the environmental performance of the CSSI; b) any document or correspondence in relation to the CSSI; c) any notification given to the Planning Secretary under the terms of this approval; d) any audit of the construction or operation of the CSSI; e) the terms of this approval and compliance with the terms of this approval (including anything required to be done under this approval); f) the carrying out of any additional monitoring or mitigation measures; and g) in respect of ongoing monitoring and management obligations, compliance with an updated or revised version of a guideline, protocol, Australian Standard or policy required to be complied with under this approval.	Prior to construction During construction Operation	This CEMP and relevant Sub-plans

Ref	Issue	Measure / Requirement	Timing	Document Reference
A5	General	References in the terms of this approval to any guideline, protocol, Australian Standard or policy are to such guidelines, protocols, Australian Standards or policies in the form they are in as at the date of this approval.	Applicable for the life of the Project	This CEMP and relevant Sub-plans and any other plans, documents or guidelines prepared under the Infrastructure Approval (SSI-9406)
A6	General	This approval lapses five (5) years after the date on which it is granted, unless work for the purpose of the CSSI are physically commenced on or before that date.	Five years from the date of approval	This CEMP
NOTIFICATION OF COMMENCEMENT				
A7	Notification of commencement	The Department must be notified in writing of the dates of commencement of Work (in relation to low impact works), construction and operation at least one (1) month before those dates.	One month prior to construction	Project program
A8	Notification of commencement	If the construction or operation of the CSSI is to be staged, the Department must be notified in writing of the date of the commencement of each stage, at least one (1) month before the commencement of that stage.	N/A	N/A
TIMING AND APPROVALS				
A9	Timing and approvals	Any document that must be submitted, or action taken within a timeframe specified in or under the terms of this approval may be submitted or undertaken within a later timeframe agreed with the Planning Secretary. This condition does not apply to the notification required in respect of an incident under Condition A34.	Prior to construction Construction Operation as applicable	Section 0 Relevant Sub-plans
A10	Timing and approvals	Where the terms of this approval require a document or monitoring program to be prepared or a review to be undertaken in consultation with identified parties, evidence of the consultation undertaken must be submitted with the corresponding documentation to the Planning Secretary and the Environmental Representative (as relevant) in accordance with the Post Approval Guidance: Defining Engagement Terms (DPIE, 2020). The evidence must include: a) documentation of the engagement with the party identified in the condition of approval that has occurred before submitting the document for approval; b) a log of the dates of engagement or attempted engagement with the identified party; c) documentation of the follow-up with the identified party where engagement has not occurred to confirm that they do not wish to engage or have not attempted to engage after repeated invitations;	Prior to construction Construction Operation as applicable	Section 3.9 Relevant Sub-plans

Ref	Issue	Measure / Requirement	Timing	Document Reference
		d) an outline of the issues raised by the identified party and how they have been addressed; and e) a description of the outstanding issues raised by the identified party and the reasons why they have not been addressed.		
STAGING				
A11	Staging	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).	N/A – Staging under this CoA is not proposed.	N/A
A12	Staging	The Staging Report must: 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; 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) c) specify how compliance conditions will be achieved across and between each of the stages of the CSSI; and d) set out mechanisms for managing any cumulative impacts arising from the proposed staging.	N/A – Staging under this CoA is not proposed	N/A
A13	Staging	Where staging is proposed, the CSSI must be staged in accordance with the Staging Report, as approved by the Planning Secretary.	N/A – Staging under this CoA is not proposed	N/A
A14	Staging	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.	N/A – Staging under this CoA is not proposed	N/A
A15	Staging	Where changes are proposed to the staging of construction or operation, a revised Staging Report must be prepared and submitted to the Planning	N/A – Staging under this CoA is not proposed	N/A

Ref	Issue	Measure / Requirement	Timing	Document Reference
		Secretary for approval no later than one (1) month prior to the proposed change in the staging.		
A16	Staging	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.	N/A – Staging under this CoA is not proposed	N/A
LOW IMPACT WORK				
A17	Low Impact Work	Prior to the commencement of low impact work, an Unexpected and Incidental Finds Protocol must be developed for: a) threatened species and threatened ecological communities; b) contamination, hazards and contaminated land; c) Aboriginal Cultural Heritage; and d) non-Aboriginal Heritage. The Unexpected and Incidental Finds Protocol must include procedures for: (i) all Work in the associated location to stop to prevent further impact; and (ii) notifying the Planning Secretary and relevant state agencies in writing. Work must not recommence until the relevant state agencies have been consulted and any required approvals have been obtained. The Unexpected and Incidental Finds Protocol must be made publicly available prior to low impact work commencing and must be implemented during low impact work.	Prior to any work	Appendix A10 – Unexpected and Incidental Finds Protocol and Procedure
TEMPORARY WORKFORCE ACCOMMODATION FACILITIES				
A18	Temporary Workforce Accommodation Facilities	The Proponent must prepare a Temporary Accommodation Facility Management Plan in consultation with the relevant council, and emergency services. The Plan must be endorsed by the Environmental Representative and submitted to the Planning Secretary for approval one (1) month prior to establishment of the accommodation facility by construction personnel commences. The Plan must include: a) site layout including building locations and outdoor recreation areas, vehicle access, movement and parking, site servicing and utilities infrastructure including the requirements of Conditions E111 and E112; b) management and emergency provisions including staff roles and responsibilities, provision of security and paramedic staff required by Condition E112,	One month prior to establishment of the facility	Accommodation Facility Management Plan

Ref	Issue	Measure / Requirement	Timing	Document Reference
		communication procedures with emergency services, and community consultation and complaints processes consistent with the Communication Strategy required by Condition B1 and the Complaints Management System required by Condition B6; c) measures to minimise noise and lighting amenity impacts on adjacent residents including limitations on use of outdoor recreation areas required by Condition E114; d) the code of conduct as required by Condition E117 for all users of the accommodation facility; and e) arrangements for servicing the accommodation facility (including in terms of food, water, wastewater, waste collection and cleaning and maintenance). The Plan must: (i) outline the provisions for and anticipated frequency and timing of servicing (including food and water deliveries and waste and wastewater collection); (ii) detail the location and facilities to store water, waste and wastewater; (iii) include cleaning and maintenance provisions, including the frequency and range of duties; and (iv) detail the measures that the Proponent would implement to support local suppliers and services in the operation of the accommodation facility. The approved Temporary Workforce Accommodation Management Plan(s) must be implemented. Note: The Temporary Workforce Accommodation Facility Management Plan is not part of the CEMP required by Condition C12.		
INDEPENDENT APPOINTMENTS				
A19	Independent Appointments	All Independent Appointments required by this approval must be in accordance with Seeking approval from the Department for the appointment of independent experts (DPIE, 2020). All Independent Appointments must hold current membership of a relevant professional body, unless otherwise agreed by the Planning Secretary.	Prior to commencement	Relevant Sub-plans
A20	Independent Appointments	The Planning Secretary may at any time commission an audit of how an Independent Appointment has exercised their functions. The Proponent must:	Any time	NA

Ref	Issue	Measure / Requirement	Timing	Document Reference
		a) facilitate and assist the Planning Secretary in any such audit; and b) make it a term of their engagement of an Independent Appointment that the Independent Appointment facilitate and assist the Planning Secretary in any such audit.		
A21	Independent Appointments	The Planning Secretary may withdraw its approval of an Independent Appointment should they consider the Independent Appointment has not exercised their functions in accordance with this approval.	Any time	NA
ENVIRONMENT REPRESENTATIVE				
A22	Environment Representative	Work must not commence until an Environmental Representative (ER) has been approved by the Planning Secretary and engaged by the Proponent.	Prior to any work	Section 7.1.3.1
A23	Environment Representative	The Planning Secretary's approval of an ER must be sought no later than one (1) month before the commencement of Work.	Prior to any work	Section 7.1.3.1
A24	Environment Representative	The proposed ER must be a suitably qualified and experienced person who was not involved in the preparation of the documents listed in Condition A1, and is independent from the design and construction personnel for the CSSI and those involved in the delivery of it. The ER must meet the requirements of the Environmental Representative Protocol (DPE, October 2018). The appointment of the ER must have regard to Seeking approval from the Department for the appointment of independent experts (DPIE, 2020).	Prior to any work	Section 7.1.3.1
A25	Environment Representative	The Proponent may engage more than one ER for the CSSI, in which case the functions to be exercised by an ER under the terms of this approval may be carried out by any ER that is approved by the Planning Secretary for the purposes of the CSSI.	Prior to any work	Section 7.1.3.1
A26	Environment Representative	For the duration of Work and for no less than twelve (12) months after the completion of construction of the CSSI, the approved ER must: a) receive and respond to communication from the Planning Secretary in relation to the environmental performance of the CSSI; b) consider and inform the Planning Secretary on matters specified in the terms of this approval; c) consider and recommend to the Proponent any improvements that may be made to work practices to avoid or minimise adverse impact to the environment and to the community; d) review documents identified in Conditions A11, A18, B1, C5, C12, C17, C27, and	Operation - No less than twelve months after construction is complete	Section 7.1.3.1

Ref	Issue	Measure / Requirement	Timing	Document Reference
		E109, and any other documents that are identified by the Planning Secretary, to ensure they are consistent with requirements in or under this approval and if so: (i) make a written statement to this effect before submission of such documents to the Planning Secretary (if those documents are required to be approved by the Planning Secretary); or (ii) make a written statement to this effect before the implementation of such documents (if those documents are required to be submitted to the Planning Secretary / Department or are not required to be submitted to the Planning Secretary / Department) (iii) provide a written statement / submission via the Major Projects portal to the Planning Secretary advising the documents have been endorsed by the ER; e) regularly monitor the implementation of the documents listed in Conditions A11, A18, B1, C5, C12, C17, C27, and E109 to ensure implementation is being carried out in accordance with the document and the terms of this approval; f) as may be requested by the Planning Secretary, help plan, attend or undertake audits of the CSSI commissioned by the Department including scoping audits, programming audits, briefings and site visits, but not independent environmental audits required under Condition A28 of this approval; g) as may be requested by the Planning Secretary, assist in the resolution of community complaints h) assess the impacts of minor ancillary facilities as required by Condition C9 of this approval; i) consider any minor amendments to be made to the CEMP, CEMP Sub-plans and Construction Monitoring Programs that comprise updating or are of an administrative nature, and are consistent with the terms of this approval and the CEMP, CEMP Sub- plans and Construction Monitoring Programs approved by the Planning Secretary and, if satisfied such amendment is necessary, approve the amendment. This does not include any modifications to the terms of this approval; and		

Ref	Issue	Measure / Requirement	Timing	Document Reference
		j) prepare and submit to the Planning Secretary and other relevant regulatory agencies, for information and make publicly available, an Environmental Representative Monthly Report providing the information set out in the Environmental Representative Protocol under the heading "Environmental Representative Monthly Reports." The Environmental Representative Monthly Report must be submitted within seven (7) calendar days following the end of each month for the duration of the ER's engagement for the CSSI.		
A27	Environment Representative	The Proponent must provide the ER with all documentation requested by the ER in order for the ER to perform their functions specified in Condition A26 (including preparation of the ER Monthly Report), as well as: a) the complaints register (to be provided on a weekly basis, where complaints have been recorded, or as requested); and b) a copy of any assessment carried out by the Proponent of whether proposed work is consistent with the approval (which must be provided to the ER before the commencement of the subject work).	Throughout the Project	Section 7.1.3.1
AUDITING				
A28	Auditing	Proposed independent auditors must be agreed to in writing by the Planning Secretary before the commencement of an Independent Audit. This condition does not apply to the engagement of auditors required under Condition E106.	Prior to commencement of the independent audit	Section 9.4
A29	Auditing	Independent Audits of the CSSI must be conducted and carried out in accordance with the Independent Audit Post Approval Requirements (DPIE, 2020).	Throughout the Project	Section 9.4
A30	Auditing	The Planning Secretary may require the initial and subsequent Independent Audits to be undertaken at different times to those specified in the Independent Audit Post Approval Requirements (DPIE, 2020), upon giving at least four (4) weeks' notice (or timing) to the Proponent of the date upon which the audit must be commenced.	Throughout the Project	Section 9.4
A31	Auditing	In accordance with the specific requirements in the Independent Audit Post Approval Requirements (DPIE, 2020), the Proponent must: a) review and respond to each Independent Audit Report prepared under Condition A30; b) submit the response to the Planning Secretary; and c) make each Independent Audit Report, and response to it, publicly available within 60	Throughout the Project	Section 9.4

Ref	Issue	Measure / Requirement	Timing	Document Reference
		days of submission to the Planning Secretary, unless otherwise agreed by the Planning Secretary.		
A32	Auditing	Independent Audit Reports and the Proponent's response to audit findings must be submitted to the Planning Secretary within two (2) months of undertaking the independent audit site inspection as outlined in the Independent Audit Post Approvals Requirements (DPIE, 2020) unless otherwise agreed by the Planning Secretary.	Within two months of undertaking independent audits	Section 9.4
A33	Auditing	Notwithstanding the requirements of the Independent Audit Post Approvals Requirements (DPIE, 2020), the Planning Secretary may approve a request for ongoing independent operational audits to be ceased, where it has been demonstrated to the Planning Secretary's satisfaction that independent operational audits have demonstrated operational compliance.	As required	Section 9.4
INCIDENT NOTIFICATION AND REPORTING				
A34	Incident notification and reporting	The Planning Secretary must be notified via the Major Projects Website immediately after the Proponent becomes aware of an incident. The notification must identify the CSSI (including the application number and the name of the CSSI if it has one) and set out the location and nature of the incident.	During works and Construction	Section 8.2
A35	Incident notification and reporting	Subsequent notification must be given and reports submitted in accordance with the requirements set out in APPENDIX A. The requirement to notify the Department under this condition excludes incidents which are solely required to be notified to the Office of the National Rail Safety Regulator.	During works and Construction	Section 8.2
NON-COMPLIANCE NOTIFICATION				
A36	Non-compliance notification	The Planning Secretary must be notified via the Major Projects Website within seven days after the Proponent becomes aware of any non-compliance. The notification must identify the CSSI (including the project number and the name of the CSSI if it has one), set out the condition/s that is non-compliant, the nature of the breach; the reason for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.	During works and Construction	Section 9.3
A37	Non-compliance notification	A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.	During works and Construction	Section 9.3
PART B COMMUNITY INFORMATION AND REPORTING				
COMMUNITY INFORMATION, CONSULTATION AND INVOLVEMENT				
B1	Community information,	A Community Communication Strategy must be prepared to facilitate communication about construction and operation of the CSSI with:	Construction and Operation	Community Communication Strategy

Ref	Issue	Measure / Requirement	Timing	Document Reference
	consultation and involvement	a) the community (including, adjoining affected landowners and businesses, Registered Aboriginal Parties (RAPs), relevant LALCs, traditional owners and others directly impacted by the CSSI); and b) the relevant state agencies and councils. Note: Nothing in this condition prevents the Proponent from submitting an amended Community Communication Strategy if it meets the requirements of these conditions of approval.		Section 7.6
B2	Community information, consultation and involvement	The Community Communication Strategy must: a) identify people, organisations, relevant council(s) and state agencies to be consulted, during the design and work phases of the CSSI; b) identify details of the community and its demographics; c) set out the procedures and mechanisms for the regular distribution of accessible information, including to CALD and vulnerable communities, about or relevant to the CSSI. The information to be distributed must include details regarding current site construction activities, schedules and milestones at each construction site; d) identify opportunities for education within the community and make provision for the community to visit construction sites (taking into consideration workplace, health and safety requirements); e) detail the measures for advising the community in advance of upcoming construction including upcoming out-of-hours work as required by Condition E5 and blasting activities; f) identify the mechanisms for engaging with the community to determine periods of respite, as required by Condition E2; g) provide for the formation of issue or location-based community forums that focus on key environmental management issues of concern to the relevant community(ies); h) set out the procedures and mechanisms for consulting with relevant councils and state agencies required by Condition A10; i) describe the method for broadcasting the 24-hour toll-free telephone complaints number and postal and email addresses for enquiries, as required by Condition B7; j) set out the procedures and mechanisms:	Construction and Operation	Community Communication Strategy Section 7.6

Ref	Issue	Measure / Requirement	Timing	Document Reference
		(i) through which the community can discuss or provide feedback to the Proponent; (ii) through which the Proponent will respond to enquiries or feedback from the community; (iii) to resolve any issues and mediate any disputes that may arise in relation to the environmental management and delivery of the CSSI, including disputes regarding rectification or compensation; (iv) address who will engage with the relevant stakeholders. (v) to resolve any issues and mediate any disputes that may arise in relation to property and infrastructure impacts, including but not limited to Individual Property Management Plans required by Condition E95. The Proponent must continue the operation of the existing Community Consultative Committee as part of its Community Communication Strategy. The Community Consultative Committee must continue to be operated in accordance with the Department's Community Consultative Committee Guideline. Continuing the Community Consultative Committee must not be the only form of community consultation in the Community Communication Strategy.		
B3	Community information, consultation and involvement	The Community Communication Strategy must be submitted to the Planning Secretary for approval no later than one (1) month before the commencement of any Work.	One (1) month before the commencement of work (low impact work and construction)	Community Communication Strategy Section 7.6
B4	Community information, consultation and involvement	Work for the purposes of the CSSI must not commence until the Community Communication Strategy has been approved by the Planning Secretary. The Planning Secretary's approval of the Community Communication Strategy must be sought no later than one month before the commencement of Work.	One (1) month before the commencement of work (low impact work and construction)	Community Communication Strategy Section 7.6
B5	Community information, consultation and involvement	The Community Communication Strategy, as approved by the Secretary, must be implemented for the duration of the work and for twelve (12) months following the completion of construction.	Throughout the Project and 12 months after completion of construction	Community Communication Strategy Section 7.6
COMPLAINTS MANAGEMENT SYSTEM				
B6	Complaints management system	A Complaints Management System must be prepared and implemented before the commencement of any work and maintained for the duration of construction and for a minimum for 12	Throughout the Project and	Section 7.6.3.2

Ref	Issue	Measure / Requirement	Timing	Document Reference
		months following completion of construction of the CSSI.	12 months after completion of construction	Community Communication Strategy
B7	Complaints management system	The Complaints Management System must make the following information publicly available to facilitate community enquiries and manage complaints, from one (1) month before the commencement of Work and for 12 months following the completion of construction of the CSSI: a) a 24- hour telephone number for the registration of complaints and enquiries about the CSSI; b) a postal address to which written complaints and enquires may be sent; c) an email address to which electronic complaints and enquiries may be transmitted; and d) a mediation system for complaints unable to be resolved. This information must be accessible to all in the community regardless of age, ethnicity, disability or literacy level.	One month prior to the commencement of work Construction 12 months after completion of construction	Section 7.6.3.2 Community Communication Strategy
B8	Complaints management system	A Complaints Register must be maintained recording information on all complaints received about the CSSI during the carrying out of any Work and for a minimum of 12 months following the completion of construction. The Complaints Register must record the: a) number of complaints received; b) the date and time of the complaint; c) the method by which the complaint was made; d) the nature and location of the complaint, including issues raised; e) number of people affected in relation to a complaint; f) means by which the complaint was addressed and whether resolution was reached, with or without mediation; and g) if no action was taken, the reason(s) why no action was taken.	Throughout the Project and 12 months after completion of construction	Section 7.6.3.2 Complaints register
B9	Complaints management system	Personal details of any complainant are not to be provided to the ER unless otherwise agreed to or requested by the complainant.	Throughout the Project and 12 months after completion of construction	Section 7.6.3.2 Complaints register
B10	Complaints management system	Complainants must be advised of the following information before, or as soon as practicable after, providing personal information: a) the Complaints Register may be forwarded to state agencies, including the	Throughout the Project and	Section 7.6.3.2 Complaints register

Ref	Issue	Measure / Requirement	Timing	Document Reference
		Department, to allow them to undertake their regulatory duties; b) by providing personal information, the complainant authorises the Proponent to provide that information to state agencies; c) the supply of personal information by the complainant is voluntary; and d) the complainant has the right to contact state agencies to access personal information held about them and to correct or amend that information (Collection Statement). The Collection Statement must be included on the Proponent's or project website to make prospective complainants aware of their rights under the Privacy and Personal Information Protection Act 1998 (NSW). Note: Should a complainant disagree with the Collection Statement, a note to that effect must be recorded in the Complaints Register.	12 months after completion of construction	
B11	Complaints management system	The Complaints Register must be provided to the Planning Secretary upon request, within the timeframe stated in the request.	Throughout the Project and 12 months after completion of construction	Section 7.6.3.2 Complaints register
COMMUNITY COMPLAINTS MEDIATOR				
B12	Community complaints mediator	A Community Complaints Mediator that is: a) independent of the design and construction personnel; and b) accredited under the National Mediator Accreditation System, administered by the Mediator Standards Board Must be nominated by the Proponent, approved by the Planning Secretary and engaged while the Complaints Management System required by Condition B6 is in operation. The nomination of the Community Complaints Mediator must be submitted to the Planning Secretary for approval within one month before the commencement of Work.	Throughout the Project and 12 months after completion of construction	Section 7.6.3.6
B13	Community complaints mediator	The Proponent may nominate additional suitably qualified and experienced persons, for the Planning Secretary's approval, to assist the Community Complaints Mediator. If additional persons are nominated, the Proponent must describe how the Community Complaints Mediator's activities will achieve consistent outcomes.	Throughout the Project and 12 months after completion of construction	Section 7.6.3.6
B14	Community complaints mediator	The role of the Community Complaints Mediator is to address any complaint where a member of the public has lodged a complaint and is not satisfied by the Proponent's response. Any member of the public that has lodged a complaint which is registered in the Complaints Management System	Throughout the Project and 12 months after completion of construction	Section 7.6.3.6

Ref	Issue	Measure / Requirement	Timing	Document Reference
		identified in Condition B6, and that complaint is unresolved, may ask the Community Complaints Mediator to review the Proponent's response. The application must be submitted in writing and the Community Complaints Mediator must respond within 28 days of the request being made or other specified timeframe agreed between the Community Complaints Mediator and the member of the public.		
B15	Community complaints mediator	The Community Complaints Mediator will: a) review any unresolved disputes if the procedures and mechanisms under Condition B2(j) do not satisfactorily address complaints; b) make recommendations to the Proponent to satisfactorily address complaints, resolve disputes or mitigate against the occurrence of future complaints or disputes; and c) provide a copy of the recommendations, and the Proponent's response to the recommendations, to the Planning Secretary within one month of the recommendations being made.	Throughout the Project and 12 months after completion of construction	Section 7.6.3.6
B16	Community complaints mediator	The Proponent must implement the recommendations made by the Community Complaints Mediator in accordance with Condition B15 within a timeframe agreed with the Community Complaints Mediator, unless otherwise agreed with the Planning Secretary.	Throughout the Project and 12 months after completion of construction	Section 7.6.3.6
B17	Community complaints mediator	The Community Complaints Mediator will not act before the Complaints Management System required by Condition B6 has been executed for a complaint and will not consider issues such as property acquisition, where other dispute processes are provided for in this approval or clear government policy and resolution processes are available, or matters which are not within the scope of this CSSI.	Throughout the Project and 12 months after completion of construction	Section 7.6.3.6
PROVISION OF ELECTRONIC INFORMATION				
B18	Provision of Electronic Information	A website or webpage providing information in relation to the CSSI must be established before commencement of Work and maintained for the duration of construction, and for a minimum of 24 months following the completion of construction, or unless otherwise agreed with the Planning Secretary. Up-to-date information (excluding confidential commercial information) must be published before the relevant work commencing and maintained on the website or dedicated pages including: a) information on the current implementation status of the CSSI; b) a copy of the documents listed in Condition A1 of this approval, and any documentation relating to any	Prior to commencement of work and throughout the Project Operation as applicable (minimum of 24 months following the completion of construction)	Section 7.6.4

Ref	Issue	Measure / Requirement	Timing	Document Reference
		modifications made to the CSSI or the terms of this approval; c) a copy of this approval in its original form, a current consolidated copy of this approval (that is, including any approved modifications to its terms), and copies of any approval granted by the Minister to a modification of the terms of this approval; d) a copy of each statutory approval, licence or permit required and obtained in relation to the CSSI; e) a current copy of each document required under the terms of this approval must be published before the commencement of any work to which they relate or before their implementation, as the case may be; and f) a copy of the compliance and audit reports required under this approval. A copy of each document required to be made publicly available under this approval must be published within 14 days of the finalisation or approval of the relevant document unless an alternate timeframe is prescribed by another condition of this approval. Where the information / document relates to a particular work or is required to be implemented, it must be published before the commencement of the relevant work to which they / it relates or before its implementation. All information required in this condition is to be provided on the Proponent's website, ordered in a logical sequence and be easy to navigate. Notes: 1. The intention of this condition is to increase transparency and for information/documents required as part of the approval to be provided proactively and publicly in an easily accessible manner. Where information is excepted by this condition, it is intended that these documents are provided in their redacted form. 2. The Planning Secretary may instruct the Proponent to finalise and upload any report or documents to the Project's website in accordance with Condition A4. 3. The publishing of documents should occur a minimum of a week before the relevant Work / activity is going to commence. 4. In determining what information should be published under this condition, the proponent should have regard to the principles in Division 2 of Part 2 of the Government Information (Public Access) Act, 2009. 5. Documents should be named to be consistent with the conditions of approval where possible. The name should also give an overall impression of what the document is about. The names should be simple and concise (no more than 50 characters) without		

Ref	Issue	Measure / Requirement	Timing	Document Reference
		any unnecessary punctuation or under scoring in the title.		
B19	Provision of Electronic Information	B19 Where the agreement of the Planning Secretary is sought to cease providing information via a website or webpage in accordance with Condition B18, the Proponent must demonstrate: (a) operational compliance through independent audits completed in accordance with Condition A29; (b) how any ongoing monitoring programs required by this approval will be made publicly available; and (c) how the public can request access to information that will no longer be available through a website or webpage.	Prior to commencement of work and throughout the Project Operation as applicable	Section 7.6.4
PART C CONSTRUCTION ENVIRONMENTAL MANAGEMENT				
Construction Environmental Management Framework				
C1	Construction Environmental Management Framework	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; b) document the proposed structure of the CEMPs, CEMP Sub-plans and CMPs for the relevant stage of construction; 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 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	N/A	A separate CEMF is not proposed for the Project

Ref	Issue	Measure / Requirement	Timing	Document Reference
		and council stakeholders required. 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. 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.		
C2	Construction Environmental Management Framework	The approved CEMF must be implemented for the duration of construction.	N/A	A separate CEMF is not proposed for the Project
C3	Construction Environmental Management Framework	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.	N/A	A separate CEMF is not proposed for the Project
SITE ESTABLISHMENT WORK				
Ancillary Facilities				
C4	Ancillary Facilities	Ancillary facilities that are not identified by description and location in the documents listed in Condition A1 can only be established and used in each case if: (a) they are located within or adjacent to the construction boundary; and (b) they are not located next to a sensitive land use(s) (including where an access road is between the facility and the receiver), unless the landowner and occupier have given written acceptance to the carrying out of the relevant facility in the proposed location; and (c) they have no impacts on heritage items (including areas of archaeological sensitivity), threatened species, populations or ecological communities beyond the impacts approved under the terms of this approval; and (d) the establishment and use of the facility can be carried out and managed within the performance outcomes set out in the terms of this approval, including in relation to environmental, social and economic impacts.	Throughout the Project	Section 4.3 Site Establishment Management Plan
Site Establishment Management Plan				

Ref	Issue	Measure / Requirement	Timing	Document Reference
C5	Ancillary Facilities	Before the establishment of any ancillary facility (excluding minor ancillary facilities established under Condition C9) or temporary workforce accommodation facility, the Proponent must prepare a Site Establishment Management Plan which outlines the environmental management practices and procedures to be implemented for the establishment of the ancillary facilities or temporary workforce accommodation facility. The Site Establishment Management Plan must be prepared in consultation with the relevant council and state agencies and endorsed by the Environmental Representative. The Plan must be submitted to the Planning Secretary for approval one (1) month before the establishment of any ancillary facilities or temporary workforce accommodation facility. The Site Establishment Management Plan must detail the management of the ancillary facilities or temporary workforce accommodation facility, and include: a) a description of activities to be undertaken during establishment of the ancillary facility or temporary workforce accommodation facility (including indicative scheduling and duration of work to be undertaken at the site); b) figures illustrating the proposed operational site layout/s; c) details of planned communication with the community consistent with the requirements of Condition B2; d) a program for ongoing analysis of the key environmental risks arising from the site establishment activities described in subsection (a) of this condition, including an initial risk assessment undertaken prior to the commencement of site establishment work; e) details of how the site establishment activities described in subsection (b) of this condition will be carried out to: (i) meet the performance outcomes stated in the documents listed in Condition A1, and (ii) manage the risks identified in the risk analysis undertaken in subsection (d) of this condition; and f) a program for monitoring the performance outcomes consistent with the requirements of Conditions C17 and C27. Nothing in this condition prevents the Proponent from preparing individual Site Establishment Management Plans for each ancillary facility, or one Site Establishment Management Plan for all	Prior to construction Construction	Section 4.3 Site Establishment Management Plan

Ref	Issue	Measure / Requirement	Timing	Document Reference
		ancillary facilities and the temporary workforce accommodation facility. The approved Site Establishment Management Plan(s) must be implemented. Upon commencement of construction, the Site Establishment Management Plan will cease to have effect and the CEMP required by Condition C12 will apply to the operation of ancillary facilities and the Temporary Workforce Accommodation Facility Management Plan required by Condition A18 will apply to the operation of accommodation facilities.		
Operation of Ancillary Facilities				
C6	Operation of Ancillary Facilities	The use of an ancillary facility for construction must not commence until the CEMP required by Condition C12, relevant CEMP Sub-plans required by Condition C17 and relevant Construction Monitoring Programs required by Condition C27 have been approved by the Planning Secretary. This condition does not apply to the use of minor Ancillary Facilities established under Condition C9. Note: The operation of an ancillary facility can commence if the ER has determined the operational activities are Low Impact work as defined in Table 1 of this approval.	Prior to construction Construction	Section 4.3.3 Site Establishment Management Plan
Access to Ancillary Facilities				
C7	Access to Ancillary Facilities	Where possible, ancillary facilities must be accessed via existing public roads and/or the existing rail corridor. Where access via existing roads or the rail corridor is not possible, the Proponent may utilise existing private access tracks on private property but only with the written permission of the landowner. The Proponent must consult with each landowner whose property is required for access and agree on the terms and conditions relating to access arrangements. Nothing in this condition prevents the landowner from refusing the Proponent access to and via their land. New construction access tracks on private property must comply with the requirements of Condition C4.	Throughout the Project	Section 4.3.2
C8	Access to Ancillary Facilities	The Proponent must ensure that all roads / tracks that will be used to access ancillary facilities are to the standard necessary to provide access as agreed with landowners, asset owner(s) and/or the relevant roads authority (as applicable), including a trafficable surface suitable to accommodate the type of vehicle movements that are anticipated to be associated with the construction of the CSSI.	Throughout the Project	Section 4.3.2 Section 7.6.2 Construction Traffic, Transport and Access Management Plan
Minor Ancillary Facilities				
C9	Minor Ancillary Facilities	Minor ancillary facilities including lunch sheds, office sheds, portable toilet facilities, material lay down sites, stockpile areas, areas used to assemble infrastructure and the like can be established and used where they satisfy the following criteria: a) are located within the construction boundary; and	Throughout the Project	Section 4.3.6 Appendix A9 – Minor Ancillary Facility Assessment Checklist

Ref	Issue	Measure / Requirement	Timing	Document Reference
		b) have been assessed by the ER to have – (i) minimal amenity impacts to surrounding residences and businesses, after consideration of matters such as compliance with the Interim Construction Noise Guideline (DECC, 2009), traffic and access impacts, dust and odour impacts, and visual (including light spill) impacts, and (ii) minimal environmental impact with respect to waste management and flooding, and (iii) no impacts on biodiversity, soil and water, and heritage items beyond those already approved under other terms of this approval.		
Boundary Screening				
C10	Boundary Screening	Boundary screening must be erected between ancillary facilities (excluding minor ancillary facilities) and temporary workforce accommodation facility, adjacent to and visible from sensitive land use(s) (including occupied residences on agricultural properties) for the duration of the time that the ancillary facility or accommodation facility is in use, unless otherwise agreed with the owner and occupier of the adjacent sensitive land use(s). Boundary screening must minimise visual impacts on adjacent sensitive land use(s) and not create a fire hazard.	Throughout the Project	Section 4.2.2
Decommissioning of Ancillary Facilities				
C11	Decommissioning of Ancillary Facilities	Any agreements for the temporary use of land for construction purposes must provide for the rehabilitation of that land and any structures on it to its Prior to construction state, unless otherwise agreed with the landowner.	Post-Construction	Section 4.3.5
CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN				
C12	Construction Environmental Management Plan	Except as provided by Condition C1, A Construction Environmental Management Plan (CEMP) must be prepared in accordance with the Environmental Management Plan Guideline for Infrastructure Projects (DPIE, 2020) to detail how the performance outcomes, commitments and mitigation measures specified in the documents listed in Condition A1 will be implemented and achieved during all stages of construction.	Construction	This CEMP Section 3.3 Section 5.2 Section 6.6
C13	Construction Environmental Management Plan	The CEMP must provide: a) a description of activities to be undertaken during construction (including the scheduling of construction);	Construction	Section 3.1 Section 4.1 Section 4.2 Section 4.3

Ref	Issue	Measure / Requirement	Timing	Document Reference
		b) details of environmental policies, guidelines and principles to be followed in the construction of the CSSI;	Construction	Section 6.4.3 Section 6.1
		c) a program for ongoing analysis of the key environmental risks arising from the activities described in subsection (a) of this condition, including an initial risk assessment undertaken prior to the commencement of construction of the CSSI. The initial risk assessment may be undertaken as part of the CEMF pursuant to Condition C1	Construction	Section 6.1 Section 6.2 Section 9.7 Appendix A3 – Risk Assessment Matrix
		d) details of how the activities described in subsection (a) of this condition will be carried out to: (i) meet the performance outcomes stated in the documents listed in Condition A1; and (ii) (ii) manage the risks identified in the risk analysis undertaken in subsection (c) of this condition;	Construction	Section 6.6 Appendix A2 – Environmental Impacts and Aspects Appendix A3 – Risk Assessment Matrix CEMP Sub-plans Community Communications Strategy (further discussed in Section 7.6)
		e) an inspection program detailing the activities to be inspected and frequency of inspections;	Construction	Section 9.1
		f) a protocol for managing and reporting any: (i) incidents; and (ii) non-compliances with this approval or statutory requirements;	Construction	Section 8 Section 9.3 Appendix A6 – Environment Incident Procedure
		g) procedures for rectifying any non-compliance with this approval identified during compliance auditing, incident management or at any time during construction;	Construction	Section 9.3
		h) a list of all the CEMP Sub-plans required in respect of construction, as set out in Condition C17. Where staged construction of the CSSI is proposed, the CEMP must also identify which CEMP Sub-plan applies to each of the proposed stages of construction;	Construction	Section 5.2
		i) a description of the roles and environmental responsibilities for relevant employees and any relevant independent appointment;	Construction	Section 7.1

<table>
<tr><th>Ref</th><th>Issue</th><th>Measure / Requirement</th><th>Timing</th><th>Document Reference</th></tr>
<tr><td></td><td></td><td>j) for training and induction for employees, including contractors and sub-contractors, in relation to environmental and compliance obligations under the terms of this approval; and</td><td>Construction</td><td>Section 7.4</td></tr>
<tr><td></td><td></td><td>k) for periodic review and update of the CEMP and all associated plans and programs; and</td><td>Construction</td><td>Section 9.5 and 9.7</td></tr>
<tr><td></td><td></td><td>l) Relevant Site Establishment Management Plans</td><td>Construction</td><td>Section 4.2.2
Site Establishment Management Plan</td></tr>
<tr><td>C14</td><td>Construction Environmental Management Plan</td><td>CEMP(s) (and relevant CEMP sub-plans) must be submitted to the Planning Secretary for approval except those permitted to be endorsed by others pursuant to a CEMF approved by the Planning Secretary under Condition C1.</td><td>Construction</td><td>Section 0</td></tr>
<tr><td>C15</td><td>Construction Environmental Management Plan</td><td>Where a CEMP (and relevant CEMP sub-plans) requires the Planning Secretary’s approval, the CEMP (and relevant CEMP sub-plans) must be endorsed by the ER and then submitted to the Planning Secretary for approval no later than one (1) month before the commencement of construction, or where construction is staged, no later than one (1) month before the commencement of each stage.</td><td>One (1) month before the commencement of construction</td><td>Section 0</td></tr>
<tr><td>C16</td><td>Construction Environmental Management Plan</td><td>CEMP(s) (and relevant CEMP sub-plans) not requiring the Planning Secretary’s approval, but requiring ER endorsement, must be submitted to the ER no later than one (1) month before the commencement of construction or where construction is staged no later than one (1) month before the commencement of that stage. The CEMPs (and relevant CEMP sub-plans) must be endorsed by the ER as being consistent with the conditions of this approval and all undertakings made in the documents listed in Condition A1.</td><td>One (1) month before the commencement of construction</td><td>Refer to C1 above</td></tr>
<tr><td>C17</td><td>Construction Environmental Management Plan</td><td>Except as provided by Condition C1, the following CEMP Sub-plans must be prepared in consultation with the relevant state agencies, relevant councils and RAPs identified for each CEMP Sub-plan. Evidence of consultation must be provided consistent with Condition A10.
<table>
<tr><th>Required CEMP Sub-Plan</th><th>Relevant government authorities to be consulted for each CEMP Sub-plan</th></tr>
<tr><td>Traffic, transport and access</td><td>TfNSW, and relevant councils</td></tr>
<tr><td>Noise and Vibration</td><td>Relevant councils</td></tr>
<tr><td>Biodiversity</td><td>BCS</td></tr>
<tr><td>Soil and water</td><td>Relevant councils, BCS</td></tr>
</table></td><td>Prior to construction</td><td>This CEMP
CEMP Sub-plans</td></tr>
</table>

Ref	Issue	Measure / Requirement	Timing	Document Reference
		<table><tr><td>Heritage</td><td>Heritage NSW, RAPs and relevant councils</td></tr><tr><td>Flood Emergency Management</td><td>SES, BCS and relevant councils</td></tr><tr><td>Biosecurity</td><td>BCS, DPI Agriculture, Local Land Services</td></tr></table> Notes: 1. CEMP Sub-plan(s) may reflect the staged construction of the project through geographical activities, temporal activities or activity-based contracting and staging. 2. Nothing in this condition prevents the Proponent from combining any of the above CEMP Sub- plans. 3. The Biodiversity CEMP Sub-Plan must be consistent with goals and objectives, mitigation measures and monitoring requirements of the Commonwealth approved conservation advice and any Recovery Plans for all Matters of National Environmental Significance.		Note that no staging is proposed.
C18	Construction Environmental Management Plan	The CEMP Sub-plans listed in Condition C17 must state how: (a) the environmental listed in Condition A1, as modified by these conditions, will be achieved; (b) the mitigation measures identified in the documents listed in Condition A1, as modified by these conditions will be implemented; (c) the relevant terms of this approval will be complied with; and (d) issues requiring management during construction, as identified through ongoing environmental risk analysis, will be managed. performance outcomes identified in the documents	Construction	Refer to relevant CEMP sub-plans
C19	Construction Environmental Management Plan	The Construction Noise and Vibration Sub-plan must include, but not be limited to: (a) an approach to assess and manage construction fatigue from noise impacts on an ongoing basis; (b) mitigation for construction traffic noise impacts from additional construction traffic and road diversions. (c) vibration levels at a range of distances from vibration intensive equipment such as excavators and vibratory rollers before undertaking works with the specific type and size of equipment.	Construction	Section 5.2.5 Section 6.3 Section 6.4.1 Section 7.5 Construction Noise and Vibration Sub-plan
C20	Construction Environmental	The Biodiversity Management Sub-plan must be endorsed by a suitably qualified and experienced ecologist and include, but not be limited to:	Construction	Section 5.2.5 Section 6.3

Ref	Issue	Measure / Requirement	Timing	Document Reference
	Management Plan	(a) details of the measures to avoid and minimise disturbance to native vegetation, and other habitat of threatened flora and fauna species, and consistency with the goals and objectives, mitigation measures and monitoring requirements of the Commonwealth approved conservation advices and any Recovery Plans and Threat Abatement Plans for all Matters of National Environmental Significance; (b) procedures for undertaking pre-clearing surveys for native fauna, including surveys by a suitably qualified and experienced ecologist to determine the presence of native fauna in the area impacted by the CSSI, and procedures and measures to manage their relocation; (c) a weed, pest and pathogen management plan consistent with the Biosecurity Act 2015 and Riverina Regional Strategic Weed Management Plan 2023-2027; (d) procedures for the dewatering of farm dams and coffer dams, including the relocation of aquatic fauna; (e) procedures for working within and adjacent to waterways including relocation of fauna and measures to maintain fish passage when the waterway is in flow; (f) protocols for unexpected and incidental finds of threatened species and threatened ecological communities within the construction boundary including in accordance with Condition E27.		Section 6.4.1 Biodiversity Management Sub-plan
C21	Construction Environmental Management Plan	The Construction Traffic, Transport and Access Management Sub-plan (CTTAMP) must be consistent with any agreements with the relevant roads authority about the use and management of local roads and include measures to: (a) minimise impacts on seasonal and school related traffic, including harvest-related vehicles, public transport (including school buses, bus stops) and freight operators; (b) minimise noise and amenity impacts of heavy vehicles entering and exiting construction compounds, and ancillary sites, and driving through populated areas, including school zones at speed limited times; (c) minimise impacts to vulnerable road users and sensitive receivers; (d) schedule heavy vehicle movements to avoid movements on public roads outside the construction hours detailed in Condition E1;	Construction	Section 5.2.5 Section 6.3 Section 6.4.1 Section 4.2 Country Rail Network / Inland Rail Interface Management Plan Construction Traffic, Transport and Access Management Sub-plan

Ref	Issue	Measure / Requirement	Timing	Document Reference
		(e) provide any necessary road intersection treatments to accommodate construction traffic, (f) ensure road repair is undertaken periodically before and during construction, and as identified in Conditions E101 and E102; (g) inform road users and freight operators of changes to traffic conditions; (h) maintain pedestrian and vehicular access to affected properties, including mechanisms to consult with affected landowners and implement measures prior to any access disruption; (i) Consult utility providers and managers to ensure appropriate access to utilities and assets is maintained; (j) identify construction vehicle routes not identified in the documents listed in Condition A1. (k) prepare a Country Rail Network / Inland Rail Interface Management Plan to address potential impacts to Country Rail Network / Inland Rail interfaces.		
C22	Construction Environmental Management Plan	The Soil and Water Management Sub-plan must include: (a) measures to avoid and minimise erosion and sedimentation impacts including to riparian, agricultural and forested land, and areas of high salinity and high erosion potential; (b) a draft water balance for the project; (c) information demonstrating that the required construction water resources are legally and physically available; (d) procedures and protocols for the appropriate supply, transport and storage of water across the CSSI; (e) mitigation measures to address construction water resource shortages that arise; (f) a protocol for avoiding, minimising and mitigating impacts in the event of interaction with groundwater; (g) a surface water monitoring framework as per Condition C29; (h) a dam dewatering protocol; and (i) a spill response procedure.	Construction	Section 5.2.5 Section 6.3 Section 6.4.1 Soil and Water Management Plan
C23	Construction Environmental	The Heritage Management Sub-plan must include:	Construction	Section 5.2.5 Section 6.3

Ref	Issue	Measure / Requirement	Timing	Document Reference
	Management Plan	(a) identification of the Aboriginal objects and Aboriginal places that must be avoided and the protective measures to be put in place; (b) procedures for additional surveys as required by Condition E135; (c) procedures for salvaging and safe keeping of the Aboriginal objects identified in the documents listed in Condition A1, and their long-term management; (d) measures to avoid or minimise disturbance to Aboriginal heritage where, (as considered by legislation, guidelines and community) areas, objects or places are found to be present. Where impacts cannot be avoided, records of stakeholder involvement and engagement; and details on the methodology for archaeological excavation and/or salvage work; (e) a process for inspecting trees for evidence of cultural scarring in areas that were not subject to the archaeological survey, and measures to avoid impact. If impact is unavoidable, and upon consultation with the Registered Aboriginal Parties, work shall be undertaken under the guidance of an appropriately qualified heritage specialist; and (f) an Unexpected Heritage Finds and Human Remains Procedure in accordance with Condition E143, with the requirement that Heritage NSW are contacted and consulted upon the discovery of human remains, prepared by a suitably qualified and experienced heritage specialist. Note: Human remains that are found unexpectedly during work are under the jurisdiction of the NSW State Coroner and must be reported to the NSW Police immediately.		Section 6.4.1 Heritage Management Sub-plan
C24	Construction Environmental Management Plan	The Flood Emergency Management Sub-plan must include: (a) measures for managing flood risks during construction and address flood recovery; (b) consideration of flood risks associated with construction works; (c) details of the management and maintenance of flood mitigation measures; and (d) measures for the management and mitigation of flood impacts affected by temporary or permanent fencing and culverts, including installation of flood mitigation measures as soon as practical after construction of the relevant drainage structure.	Construction	Section 5.2.5 Section 6.3 Section 6.4.1 Flood Emergency Management Sub-plan

<table>
<tr><th>Ref</th><th>Issue</th><th>Measure / Requirement</th><th>Timing</th><th>Document Reference</th></tr>
<tr><td>C25</td><td>Construction Environmental Management Plan</td><td>The Biosecurity Management Sub-plan must include:
(a) measures to minimise biosecurity risks to agricultural land;
(b) protocols for animal diseases including emergency situations;
(c) measures to manage pest and weed impacts; and
(d) measures for the management and mitigation of biosecurity impacts affected by temporary or permanent works.</td><td>Construction</td><td>Section 5.2.5
Section 6.3
Section 6.4.1
Biosecurity Management Sub-plan</td></tr>
<tr><td>C26</td><td>Construction Environmental Management Plan</td><td>Construction must not commence until the CEMP and all CEMP Sub-plans have been approved by the Planning Secretary or endorsed by the ER (as applicable and as identified in the CEMF approved under Condition C1). The CEMP and CEMP Sub-plans, as approved by the Planning Secretary, including any minor amendments approved by the ER, must be implemented for the duration of construction. Where the CSSI is being staged, construction of that stage is not to commence until the relevant CEMP and sub-plans have been endorsed by the ER and approved by the Planning Secretary or ER.</td><td>Construction</td><td>Section 0</td></tr>
<tr><td colspan="5">CONSTRUCTION MONITORING PROGRAMS</td></tr>
<tr><td>C27</td><td>Construction monitoring programs</td><td>Except as provided by Condition C1 the following Construction Monitoring Programs must be prepared in consultation with the relevant state agencies and relevant councils identified for the Construction Monitoring Programs to compare actual performance of construction of the CSSI against performance predicted in the documents specified in Condition A1.
<table>
<tr><th>Required construction monitoring programs</th><th>Relevant government authorities to be consulted for each construction monitoring program</th></tr>
<tr><td>a) Noise and vibration</td><td>Nil</td></tr>
<tr><td>b) Surface Water</td><td>DCCEEW Water,Crown Lands and relevant Councils</td></tr>
<tr><td>c) Traffic, transport and access management</td><td>TfNSW and relevant Councils</td></tr>
</table></td><td>Construction</td><td>Section 9.2
Construction Noise and Vibration Sub-plan
Soil and Water Management Sub-plan
Construction Traffic, Transport and Access Management Sub-plan</td></tr>
<tr><td>C28</td><td>Construction monitoring programs</td><td>Each Construction Monitoring Program (CMP) must have consideration of SMART principles and provide:
(a) details of baseline data available;
(b) details of baseline data to be obtained and when;
(c) details of all monitoring of the CSSI to be undertaken;</td><td>Construction</td><td>Section 9.2
Included in relevant construction</td></tr>
</table>

Ref	Issue	Measure / Requirement	Timing	Document Reference
		(d) the parameters of the CSSI to be monitored; (e) the frequency of monitoring to be undertaken; (f) the location of monitoring and reasons for choosing the location; (g) the reporting of monitoring results and analysis results against relevant criteria; (h) details of the methods that will be used to analyse the monitoring data; (i) procedures to identify and implement additional mitigation measures where the results of the monitoring indicate unacceptable project impacts; (j) any consultation to be undertaken in relation to the monitoring programs; and (k) any specific requirements as required by Condition C29.		monitoring programs
C29	Construction monitoring programs	The Surface Water Monitoring Program must be prepared in accordance with the requirements of Condition E84 to E85.	Construction	Section 9.2 Soil and Water Management Sub Plan
C30	Construction monitoring programs	The Noise Monitoring Program must be prepared and implemented in accordance with the requirements of Approved Methods for the Measurement and Analysis of Environmental Noise (EPA).	Construction	Section 9.2 Construction Noise and Vibration Management Sub-plan
C31	Construction monitoring programs	CMPs must be submitted to the Planning Secretary for approval except those permitted to be endorsed by others pursuant to a CEMF approved by the Planning Secretary under Condition C1.	Construction	Section 0 Refer to C1 above Section 9.2
C32	Construction monitoring programs	Where a CMP requires Planning Secretary's approval, the CMP must be endorsed by the ER and then submitted to the Planning Secretary for approval no later than one (1) month before the commencement of construction, or where construction is staged, no later than one (1) month before the commencement of each stage.	One (1) month before the commencement of construction	Section 0 Section 9.2
C33	Construction monitoring programs	CMP(s) not requiring the Planning Secretary's approval, but requiring ER endorsement, must be submitted to the ER no later than one (1) month before the commencement of construction or where construction is staged no later than one (1) month before the commencement of that stage. The CMP(s) must be endorsed by the ER as being consistent with the conditions of this approval and all undertakings made in the documents listed in Condition A1.	One (1) month before the commencement of construction	Section 0 Section 9.2
C34	Construction monitoring programs	Construction must not commence until the relevant CMP(s) have been approved by the Planning Secretary or endorsed by the ER, (as applicable and as identified in the CEMF approved under Condition C1), and all relevant baseline data for the specific construction activity has been collected.	Prior to construction	Section 0 Section 9.2

Ref	Issue	Measure / Requirement	Timing	Document Reference
C35	Construction monitoring programs	The CMP(s), as approved or endorsed (as relevant), including any minor amendments approved by the ER, must be implemented for the duration of construction and for any longer period set out in the monitoring program or specified by the Planning Secretary, whichever is the greater.	Prior to construction Construction	Section 0 Section 9.2
C36	Construction monitoring programs	The results of the CMP(s) must be made publicly available in the form of a Construction Monitoring Report at the frequency identified in the relevant CMP. Note: Where a relevant CEMP Sub-plan exists, the relevant Construction Monitoring Program may be incorporated into that CEMP Sub-plan.	Construction	Section 7.6.4 Construction Monitoring Report Section 9.2
PART D - OPERATIONAL ENVIRONMENTAL MANAGEMENT				
OPERATIONAL ENVIRONMENTAL MANAGEMENT				
D1	Operational Environmental Management	An Operational Environmental Management Plan (OEMP) must be prepared in accordance with the *Environmental Management Plan Guideline for Infrastructure Projects* (DPIE, 2020). The OEMP must detail how the performance outcomes, commitments and mitigation measures made and identified in the documents listed in Condition A1 will be implemented and achieved during operation. This condition (Condition D1) does not apply if Condition D2 of this approval applies.	Pre-operation	Operational Environment Management Plan
D2	Operational Environmental Management	An OEMP is not required for the CSSI if the Proponent has an Environmental Management System (EMS) or equivalent as agreed with the Planning Secretary, and can demonstrate, to the written satisfaction of the Planning Secretary, that through the EMS or equivalent that: (a) the performance outcomes, commitments and mitigation measures, made and identified in the documents listed in Condition A1, and terms of this approval can be achieved; (b) issues identified through ongoing risk analysis can be managed; (c) procedures are in place for rectifying any non-compliance with this approval identified during compliance auditing, incident management or any other time during operation; and (d) procedures and mechanisms: (i) for the community to discuss or provide feedback to the Proponent; (ii) through which the Proponent will respond to enquiries or feedback from the community; and (iii) resolve any issues and mediate any disputes that may arise in relation to the environmental management and delivery of the	Pre-operation	Operational Environment Management Plan

Ref	Issue	Measure / Requirement	Timing	Document Reference
		CSSI, including disputes regarding rectification or compensation. At a minimum, the EMS must address fencing provision, failure compensation mechanisms and repair, maintenance of fences and culverts, with strict observance of biosecurity protocols, consistent with the *Biosecurity Act 2015.*		
D3	Operational Environmental Management	The OEMP or EMS or equivalent as agreed with the Planning Secretary, must be made publicly available prior to the commencement of operation, or where operation is staged, prior to the commencement of operation of that stage.	Pre-operation	Operational Environment Management Plan
D4	Operational Environmental Management	The OEMP or EMS or equivalent as agreed with the Planning Secretary, and as amended from time to time, must be implemented for the duration of operation.	Pre-operation Operation	Operational Environment Management Plan
OPERATIONAL MONITORING PROGRAMS				
D5	Operational Monitoring Programs	The following Operational Monitoring Programs must be prepared in consultation with the relevant authorities identified for each Operational Monitoring Program to compare actual operational performance against predicted performance. Details of all information requested by an agency during consultation must be provided to the Planning Secretary as part of any submission of the relevant Operational Monitoring Program, including copies of all correspondence from those agencies as required by Condition A10.	Pre-operation Operation	Operational Environment Management Plan
D6	Operational Monitoring Programs	Each operational monitoring program must include: a) details of baseline data; b) details of all monitoring of the CSSI to be undertaken; c) the parameters of the CSSI to be monitored; d) the frequency and lifespan of monitoring to be undertaken; e) the location of monitoring; f) the reporting of monitoring and analysis of results against relevant criteria; g) details of the methods that will be employed to analyse the monitoring data; h) procedures and/or trigger points to identify and implement additional mitigation measures where results of monitoring are unsatisfactory; i) consideration of SMART principles; and j) any consultation to be undertaken in relation to the monitoring programs.	Pre-operation Operation	Operational Environment Management Plan

Ref	Issue	Measure / Requirement	Timing	Document Reference
D7	Operational Monitoring Programs	An Operational Fauna Connectivity Monitoring, Predator Prevention and Adaptive Mitigation Program must be implemented for a period of ten (10) years, or as otherwise agreed with the Planning Secretary, to evaluate the effectiveness of fauna connectivity measures and any adaptive management measures. The Program must be prepared by a suitably qualified and experienced ecologist(s) with experience in fauna connectivity and crossings and experimental design and include regular seasonal ongoing monitoring and not be limited to: a) target species, including: (i) Brown Treecreeper; (ii) Diamond Firetail; (iii) Flame Robin; (iv) Grey-Crowned Babbler; (v) Rainbow Bee-eater; (vi) Scarlet Robin; (vii) Speckled Warbler; (viii) Superb Parrot; (ix) Varied Sittella; (x) White-fronted Chat; and (xi) Squirrel Glider; b) baseline monitoring data as required by Condition E40; c) performance indicators, type, duration and frequency of monitoring, inspections and condition assessments; d) the effectiveness of new and existing fauna connectivity measures, including fauna exclusion fencing, fauna furniture and predation prevention measures; e) visual inspections of fauna connectivity structures including rope crossing and fauna exclusion fencing, following a severe weather event and/or record of fauna mortality; f) condition assessments of fauna connectivity measures including habitat refuges and predation prevention measures; g) an adaptive monitoring program to assess the effectiveness of the mitigation measures identified in Conditions E44 to E45 and whether changes are required to the monitoring program; h) a process to ensure adaptive management measures, including changes to fauna furniture, predator prevention or mitigation in response to the results of monitoring completed in accordance with Condition D7(a) to (g) above, and a timeframe for their implementation; and i) timeframes for the rectification of defects identified during inspections	Pre-operation Operation	Operational Environment Management Plan Operational Fauna Connectivity Monitoring, Predator Prevention and Adaptive Mitigation Program

Ref	Issue	Measure / Requirement	Timing	Document Reference
		The results of the monitoring must be provided in an annual report and submitted to the Planning Secretary upon request, to BCS, the relevant Council and made publicly available in accordance with Condition B18.		
D8	Operational Monitoring Programs	At the end of 10 years, the Proponent must consult with BCS to determine whether ongoing monitoring, predator prevention and mitigation measures are required to continue. Any ongoing monitoring, prevention and mitigation measures recommended by BCS must be undertaken, unless otherwise agreed to by the Planning Secretary. The Operational Monitoring Program(s) must be submitted to the Planning Secretary for approval at least three (3) months prior to the commencement of operation.	Three months prior to the commencement of operation	Operational Monitoring Programs as applicable
D9	Operational Monitoring Programs	Operation must not commence until the Planning Secretary has approved all of the required Operational Monitoring Programs, and all relevant baseline data has been collected.	Pre-operation	Operational Monitoring Programs as applicable
D10	Operational Monitoring Programs	The Operational Monitoring Programs, as approved by the Planning Secretary, must be implemented for the duration identified in the terms of this approval. Where no duration is specified in this approval, they must be implemented for the duration specified in the relevant Operational Monitoring Program or as specified by the Planning Secretary.	Operation	Operational Monitoring Programs as applicable
D11	Operational Monitoring Programs	The results of the Operational Monitoring Programs must be submitted to the Planning Secretary, and relevant regulatory authorities, for information in the form of an Operational Monitoring Report at the frequency identified in the in the terms of this approval. Where no frequency is identified in this approval, the results must be submitted at the frequency identified in the relevant Operational Monitoring Program.	Operation	Operational Monitoring Programs as applicable
D12	Operational Monitoring Programs	Where a relevant OEMP Sub-plan exists, the relevant Operational Monitoring Program may be incorporated into that OEMP Sub-plan.	Operation	OEMP sub-plans
PART E KEY ISSUE CONDITIONS				
NOISE AND VIBRATION				
Work Hours				
E1	Work Hours	Work must be undertaken during the following hours: a) 7:00 am to 6:00 pm Mondays to Fridays; b) 7:00 am to 6:00 pm Saturdays; and c) at no time on Sundays or public holidays.	Throughout the Project	Section 7.5
E2	Work Hours	Despite Condition E1, work (excluding establishment of the temporary workforce accommodation facilities) may be undertaken during the hours of 6:00 am to 6:00 pm each day provided:	Throughout the Project	Section 7.5

Ref	Issue	Measure / Requirement	Timing	Document Reference
		a) no work affects any given receiver between the hours of 6:00 pm on a Saturday and 7:00 am on a Monday every second week; b) only low impact noise activities (defined in Condition E3(b)) are permitted between 6.00 am and 7.00 am; and c) consultation with affected receivers occurs at least every three months, or more frequently following complaints recorded in the Complaints Register required by Condition B8, to determine respite or additional mitigation measures. In consulting with the affected receivers, the following must be provided: (i) a progressive schedule of anticipated hours of works beyond those permitted by Condition E1 for periods of no less than three months; (ii) a description of the anticipated construction activities, location and duration of the work; (iii) the noise characteristics and likely noise levels of the work; (iv) the practical measures implemented to minimise noisy work and heavy vehicle movements before 7:00am and any time on a Sunday; and (v) mitigation and management measures which aim to achieve the relevant noise management levels identified in the documents listed under Condition A1 (including the circumstances in which respite or other offers will be available and details about how the affected receivers can access these). Evidence of consultation and the outcomes, including any changes to construction practices or staging, must be reviewed by the ER and provided to the Planning Secretary on request. Notes: 1. This condition does not affect any other offers of respite or noise mitigation required under this approval. 2. This condition does not prevent a working schedule of ten consecutive days of work followed by four consecutive days of no work provided one day of no work is a Sunday and that consultation with affected receivers about respite and mitigation occurs every three months;		
Variation to Work Hours				

Ref	Issue	Measure / Requirement	Timing	Document Reference
E3	Variation to Work Hours	Despite Conditions E1 and E2 work may be undertaken outside the hours specified in the following circumstances: a) Safety and emergencies, including: (i) for the delivery of materials required by the NSW Police Force or other authority for safety reasons; or (ii) where it is required in an emergency to avoid injury or the loss of life, to avoid damage or loss of property or to prevent environmental harm; or b) Low impact noise activities, including: (i) construction that causes LAeq(15 minute) noise levels: • no more than 5 dB(A) above the rating background level at any residence in accordance with the ICNG, and • no more than the 'noise affected' NMLs specified in Table 3 of the ICNG at other sensitive land uses; and (ii) construction that causes LAFmax noise levels no more than 15 dB(A) above the rating background level at any residence during the night period as defined in the Noise Policy for Industry (EPA, 2017); and (iii) construction that causes: • continuous or impulsive vibration values, measured at the most affected residence, are no more than the preferred values for human exposure to vibration specified in Table 2.2 of Assessing vibration: A technical guideline (DEC, 2006), or • intermittent vibration values, measured at the most affected residence, are no more than the preferred values for human exposure to vibration, specified in Table 2.4 of Assessing vibration: A technical guideline (DEC, 2006); or c) By approval or agreement, including: (i) where different construction hours are permitted or required under	Throughout the Project	Section 7.5.2

Ref	Issue	Measure / Requirement	Timing	Document Reference
		an EPL in force in respect of the CSSI; or (ii) works which are not subject to an EPL that are approved under an Out-of-Hours Work Protocol as required by Condition E5; or (iii) negotiated agreements with directly affected residents and sensitive land uses. On becoming aware of the need for emergency work in accordance with Condition E3(a)(ii) above, the ER, the Planning Secretary and the EPA must be notified of the reasons for such work. The Proponent must use best endeavours to notify as soon as practicable all noise and/or vibration affected sensitive land uses of the likely impact and duration of those work. All negotiated agreements with owners and occupiers of sensitive land uses to carry out work in accordance with Condition E3(c)(iii) must be in writing, and include the hours, duration and likely noise levels compared to the NML defined in the ICNG. The negotiated agreement must be agreed and finalised before the commencement of work affecting the sensitive land uses.		
Highly Noise Intensive Work				
E4	Highly Noise Intensive Work	Except as permitted by an EPL or approved through an Out of Hours Work Protocol (for work not subject to an EPL), highly noise intensive work (defined in Table 1) that results in an exceedance of the applicable NML at the same receiver must only be undertaken: a) between the hours of 8:00 am to 6:00 pm Monday to Friday (excluding public holidays); b) between the hours of 8:00 am to 1:00 pm Saturday; and c) in continuous blocks not exceeding three hours each with a minimum respite of at least one hour between each block of highly noise intensive work. For the purpose of this condition, 'continuous' includes any period during which there is less than a one-hour respite between ceasing and recommencing any work that is the subject of this condition.	Throughout the Project	Section 7.5.3
Out-of-Hours Work Protocol – Work not subject to an EPL				
E5	Out-of-Hours Work Protocol – Work not subject to an EPL	An Out-of-Hours Work Protocol must be prepared to identify a process for the consideration, management and approval of work which is outside the hours defined in Conditions E1 and E2, and that is not subject to an EPL. The Protocol must be approved by the Planning Secretary before commencement of any out-of-hours work. The	Throughout the Project	Section 7.5 Out-of-Hours Work Protocol

Ref	Issue	Measure / Requirement	Timing	Document Reference
		Protocol must be prepared in consultation with the EPA. The Protocol must: a) provide a process for the consideration of out-of-hours work against the relevant noise b) provide a process for the identification and implementation of mitigation measures for residual impacts, including respite periods in consultation with the community at each affected location; c) identify procedures to facilitate the coordination of out-of-hours work approved by an EPL to ensure appropriate respite is provided; d) identify an approval process that considers the risk of activities, proposed mitigation, management, and coordination, including where: (i) the ER review all proposed out of hours activities and confirm their risk levels; (ii) low risk activities can be approved by the ER, and (ii) high risk activities that are approved by the Planning Secretary; and e) identify Department, EPA and community notification arrangements for approved out-of-hours work, which maybe detailed in the Communication Strategy.		
E6	Out-of-Hours Work Protocol – Work not subject to an EPL	Work that results in noise levels above NMLs at community, religious, educational institutions and noise and vibration-sensitive businesses and critical working areas (such as theatres, laboratories and operating theatres) must not be timetabled within sensitive periods or during important events, unless other reasonable arrangements with the affected institutions or businesses are made at no cost to the affected institution or business or as otherwise approved by the Planning Secretary.	Throughout the Project	Section 7.5 Out-of-Hours Work Protocol
Noise and Vibration Mitigation				
E7	Noise and Vibration Mitigation	Mitigation measures must be implemented with the aim of achieving the following construction noise management levels and vibration criteria: a) construction 'noise affected' NMLs established using the ICNG; b) vibration criteria established using the Assessing vibration: A technical guideline (DEC, 2006) (for human exposure); c) Australian Standard AS 2187.2 - 2006 Explosives - Storage and use - Use of explosives;	Throughout the Project	Construction Noise and Vibration Management Plan

Ref	Issue	Measure / Requirement	Timing	Document Reference
		d) BS 7385 Part 2-1993 Evaluation and measurement for vibration in buildings Part 2 as they are applicable to Australian conditions; e) the vibration limits set out in the German standard DIN 4150-3: Structural vibration-effects of vibration on structures (for structural damage); and f) Project noise trigger levels and maximum noise level event trigger levels established using the Noise Policy for Industry (EPA, 2017) for noise generated by mechanical plant and on-site vehicles at temporary workforce accommodation facilities. Any work identified as exceeding the NMLs and/or vibration criteria must be managed in accordance with the Construction Noise and Vibration Management Sub-plan required by Condition C17. Note: The ICNG identifies 'particularly annoying' activities that require the addition of 5 dB(A) to the predicted level before comparing to the construction Noise Management Level.		
E8	Noise and Vibration Mitigation	Owners and occupiers of properties at risk of exceeding the screening criteria for cosmetic damage must be notified before construction that generates vibration commences in the vicinity of those properties. If the potential exceedance is to occur more than once or extend over a period of 24 hours, owner and occupiers must be provided with a schedule of potential exceedances for the duration of the potential exceedances, unless otherwise agreed by the owner and occupier. These properties must be identified and considered in the Construction Noise and Vibration Management Sub-plan required by Condition C17.	Throughout the Project	Construction Noise and Vibration Management Plan
Construction Noise - Coordination and Respite				
E9	Construction Noise - Coordination and Respite	The Proponent must coordinate work with other Inland Rail projects, including any work to relocate or connect utilities conducted under any approval pathway, to minimise cumulative and consecutive noise and vibration impacts and maximise respite for affected sensitive receivers. Coordination and mitigation measures must be detailed in the Noise and Vibration Management Sub-plan required by Condition C17.	Throughout the Project	Construction Noise and Vibration Management Plan
Blasting Management Strategy				
E10	Blasting Management Strategy	If blasting is proposed during construction, a Blast Management Strategy must be prepared and must include: (a) sequencing and review of trial blasting to inform blasting; (b) regularity of blasting; (c) intensity of blasting; (d) monitoring blast overpressure and ground vibration; (e) consultation with utility asset owners and	Construction	Section 7.5.5 Blasting Management Strategy

Ref	Issue	Measure / Requirement	Timing	Document Reference
		managers; (f) measures to minimise blasting impacts; (g) periods of relief; and (h) blasting program.		
E11	Blasting Management Strategy	The Blast Management Strategy must be endorsed by a suitably qualified and experienced person.	Prior to work commencing	Section 7.5.5 Blasting Management Strategy
E12	Blasting Management Strategy	The Blast Management Strategy must be prepared in accordance with relevant guidelines to ensure that all blasting and associated activities are carried out so as not to generate unacceptable noise and vibration impacts or pose a significant risk to sensitive receivers.	NA	Section 7.5.5 Blasting Management Strategy
E13	Blasting Management Strategy	The Blast Management Strategy must be submitted to the Planning Secretary for approval no later than one month prior to the commencement of blasting. The Strategy as submitted to the Planning Secretary, must be implemented for all blasting activities.	One month prior to the commencement of blasting.	Section 7.5.5 Blasting Management Strategy
E14	Blasting Management Strategy	Blasting associated with the CSSI must only be undertaken during the following hours: a) 9:00 am to 5:00 pm, Monday to Friday, inclusive; b) 9:00 am to 1:00 pm, Saturday; and c) at no time on Sunday or on a public holiday; or as authorised through an EPL if blasting is proposed outside of these hours. This condition does not apply in the event of a direction from police or other relevant authority or utilities for safety or emergency reasons to avoid loss of life, property loss and/or to prevent environmental harm.	Throughout the Project	Section 7.5.5 Blasting Management Strategy
Noise Mitigation – Operational Noise Mitigation Measures – Rail				
E15	Noise Mitigation – Operational Noise Mitigation Measures – Rail	The Proponent must prepare an Operational Noise and Vibration Review - Rail (ONVR - Rail) to confirm noise and vibration control measures that would be implemented for operational rail elements of the CSSI. The ONVR - Rail and identification and selection of any noise mitigation measures must be prepared in consultation with the EPA and impacted sensitive receivers. Where barrier options (e.g. noise walls or mounds) are proposed to be implemented, consultation must also be undertaken with the relevant councils and if noise walls/mounds are to be constructed along a road, the relevant roads authority. The ONVR - Rail must: a) confirm the appropriate operational noise and vibration objectives and levels for each section at adjoining developments, including existing sensitive land uses;	Pre-operation	ONVR - Rail

Ref	Issue	Measure / Requirement	Timing	Document Reference
		b) confirm the operational noise and vibration predictions based on the final design. Confirmation must be based on an appropriately validated noise model (which has incorporated additional noise monitoring, and concurrent traffic counting, where necessary for model validation and/or calibration purposes). The noise and vibration modelling must consider as a minimum (but not limited to): (i) the number and type of locomotives and wagons required for each train type, (ii) track features and associated noise sources including trackform, track condition, turnouts, points, curves, crossing loops, and sidings, (iii) re-radiated noise from viaducts, bridges, culverts, and other structures, (iv) train operating characteristics and associated noise sources including travelling at ruling train speed, notch settings, dynamic braking, changes in speed, and gradients, (v) safety devices such as warning horns and bells at level crossings. (vi) Identify and confirm sensitive receivers at which Rail Infrastructure Noise Guideline (EPA, 2013) trigger levels are predicted to be exceeded once the CSSI is operational and in 2040 as identified in documents listed in Condition A1; c) review the suitability of the operational noise and vibration mitigation measures identified in the documents listed in Condition A1 and, where necessary, investigate and identify additional noise and vibration mitigation measures, required to achieve the noise and vibration objectives outlined in the Rail Infrastructure Noise Guideline once the CSSI is operational and in 2040 as identified in documents in listed in Condition A1 after commencement of operation as notified in accordance with Condition A7. This review must consider: (i) local climate and impacts on existing cooling devices; (ii) alternative at-property mitigation measures where the physical condition of a receiver building		

Ref	Issue	Measure / Requirement	Timing	Document Reference
		would render acoustic glazing and seals ineffective; and (iii) all feasible barrier options. d) Review the location of crossing loops, sidings, and level crossings, and investigate and implement practical measures to minimise adverse traffic, access and noise impacts; e) describe the final suite of noise and vibration mitigation measures that will be implemented to achieve the objectives outlined in the Rail Infrastructure Noise Guideline once the CSSI is operational and in 2040 as identified in documents in listed in Condition A1, including the timing of implementation in accordance with Condition E20; f) include a consultation strategy to seek feedback from directly affected landowners on the noise and vibration mitigation measures; and g) procedures for the management of operational noise and vibration complaints. The ONVR - Rail must be verified by an independent and suitably qualified acoustic expert and submitted to and approved by the Planning Secretary prior to whichever occurs first: either the implementation of any operational noise mitigation measures, or commencement of operation. The Proponent must make the ONVR - Rail publicly available.		
E16	Noise Mitigation – Operational Noise Mitigation Measures – Rail	E16 Within one year of, and after ten years after commencement of operations, or as otherwise agreed with the Planning Secretary, the Proponent must undertake monitoring of operational noise to compare actual noise performance of the rail operations of the CSSI against the noise performance predicted in the review of noise mitigation measures required by Condition E15. The Proponent must prepare an Operational Noise Compliance Report – Rail (ONCR - Rail) to document this monitoring. The Report must include, but not necessarily be limited to: a) noise monitoring to assess compliance with the operational noise levels predicted in the review of operational noise mitigation measures required under Condition E15; b) methodology, location and frequency of noise monitoring undertaken, including monitoring sites at which CSSI noise levels are ascertained, with specific reference to locations indicative of impacts on sensitive receivers identified as exceeding noise trigger levels and vibration trigger levels in the Rail Infrastructure Noise Guideline	Within one year of operation	ONVR – Rail

Ref	Issue	Measure / Requirement	Timing	Document Reference
		defined in the documents listed under Condition A1. c) details of any complaints and enquiries received in relation to operational noise and vibration generated by the CSSI between the date of commencement of operation and the date the report was prepared; d) any required recalibrations of the noise model taking into consideration factors such as noise monitoring and actual train movements; e) an assessment of the performance and effectiveness of applied noise mitigation measures together with a review and if necessary, reassessment of mitigation measures; and f) identification of additional measures to those identified in the review of noise mitigation measures required by Condition E15, that would be implemented with the objective of meeting the criteria outlined in the Rail Infrastructure Noise Guideline, when these measures would be implemented and how their effectiveness would be measured and reported to the Planning Secretary and the EPA. The ONCR - Rail is to be verified by a suitably qualified and experienced noise and vibration expert. The ONCR - Rail must be submitted to the Planning Secretary and the EPA for approval within 90 days of completing the operational noise monitoring. The Proponent must make the ONCR - Rail publicly available.		
Noise Mitigation – Operational Noise Mitigation Measures – Road Traffic				
E17	Noise Mitigation – Operational Noise Mitigation Measures – Road Traffic	E17 The Proponent must prepare an Operational Noise and Vibration Review – Road (ONVR - Road) to confirm noise and vibration control measures that would be implemented for the operation of the road traffic related parts of the CSSI. The ONVR - Road and identification and selection of any noise mitigation measures must be prepared in consultation with the EPA and impacted sensitive receivers. Where barrier options (e.g. noise walls or mounds) are proposed to be implemented, consultation must also be undertaken with the relevant councils and if noise walls/mounds are to be constructed along a classified road, TfNSW. The ONVR- Road must: a) confirm the appropriate operational noise and vibration objectives and levels including existing sensitive land uses; b) confirm the operational noise and vibration predictions based on the final design. Confirmation must be based on an appropriately validated noise model (which has incorporated additional noise	Pre-operation	ONVR – Road

Ref	Issue	Measure / Requirement	Timing	Document Reference
		monitoring, and concurrent traffic counting, where necessary for model validation and/or calibration purposes). c) Identify / confirm sensitive receivers at which the criteria set out in the Road Noise Policy (EPA, 2011) are predicted to be exceeded once the CSSI is operational and ten years after operation commences. d) review the suitability of the operational noise and vibration mitigation measures identified in the documents listed in Condition A1 and, where necessary, investigate and identify additional noise and vibration mitigation measures, required to achieve the noise and vibration criteria outlined in the Road Noise Policy once the CSSI is operational and ten years after as identified in documents in listed in Condition A1 after commencement of operation as notified in accordance with Condition A7. e) describe the final suite of noise and vibration mitigation measures that will be implemented to achieve the objectives outlined in the Road Noise Policy once the CSSI is operational and ten years after as identified in documents in listed in Condition A1, including the timing of implementation in accordance with Condition E20; f) include a consultation strategy to seek feedback from directly affected landowners on the noise and vibration mitigation measures; and g) procedures for the management of operational noise and vibration complaints. The ONVR - Road must be verified by an independent and suitably qualified acoustic expert and submitted to the Planning Secretary for approval before whichever occurs first: either the implementation of any operational noise mitigation measures, or commencement of operation. The Proponent must make the ONVR - Road publicly available.		
E18	Noise Mitigation – Operational Noise Mitigation Measures – Road Traffic	Within one year of, and after ten years after commencement of operations, or as otherwise agreed with the Planning Secretary, the Proponent must undertake monitoring of operational noise to compare actual noise performance of the road traffic related parts of the CSSI against the noise performance predicted in the review of noise mitigation measures required by Condition E17. The Proponent must prepare an Operational Noise Compliance Report – Road (ONCR - Road) to document this monitoring. The Report must include, but not necessarily be limited to:	Within one year of operation	ONVR – Road

Ref	Issue	Measure / Requirement	Timing	Document Reference
		a) noise monitoring to assess compliance with the operational noise levels predicted in the review of operational noise mitigation measures required under Condition E17; b) methodology, location and frequency of noise monitoring undertaken; c) details of any complaints and enquiries received in relation to operational noise and vibration generated by the CSSI between the date of commencement of operation and the date the report was prepared d) any required recalibrations of the noise model taking into consideration factors such as noise monitoring and actual traffic movements; e) an assessment of the performance and effectiveness of applied noise mitigation measures together with a review and if necessary, reassessment of mitigation measures; and f) identification of additional measures to those identified in the review of noise mitigation measures required by Condition E17, that would be implemented with the objective of meeting the criteria outlined in the Road Noise Policy, when these measures would be implemented and how their effectiveness would be measured and reported to the Planning Secretary and the EPA. The ONCR - Road is to be verified by a suitably qualified and experienced noise and vibration expert. The ONCR - Road must be submitted to the Planning Secretary and the EPA for information within 90 days of completing the operational noise monitoring. The Proponent must make the ONCR - Road publicly available.		
E19	Noise Mitigation – Operational Noise Mitigation Measures – Road Traffic	Noise and vibration control measures identified in the ONVRs must be implemented.	Pre-operation	ONVR – Road
E20	Noise Mitigation – Operational Noise Mitigation Measures – Road Traffic	Operational noise mitigation measures identified in Condition E15 and Condition E17 (such as at-property architectural treatments) that will not be affected by construction work, must be implemented: (a) within twelve (12) months of the commencement of construction affecting the impacted receiver/s; (b) in the case of at-property treatments, as agreed with the landowner; or (c) as agreed by the Planning Secretary.	Pre-operation	ONVR – Road
E21	Noise Mitigation – Operational Noise Mitigation	Where implementation of operational noise mitigation measures are not proposed in accordance with Condition E20, the Proponent must	Pre-operation	ONVR – Road

Ref	Issue	Measure / Requirement	Timing	Document Reference
	Measures – Road Traffic	submit to the Planning Secretary a report providing justification as to why, along with details of temporary measures that would be implemented to reduce construction noise impacts, until such time that the operational noise mitigation measures identified in Condition E15 and Condition E17 are implemented. The report must be endorsed by the ER and submitted to the Planning Secretary prior to the commencement of construction which would affect the identified sensitive receivers.		
Maintenance of Track Friction Modification Systems				
E22	Maintenance of Track Friction Modification Systems	Track friction modification systems and track condition maintenance regimes must be maintained to ensure that they maintain the performance of the SSI as stated in the ONVR – Rail (Condition E15) throughout the life of the project.	Pre-operation	ONVR – Rail
BIODIVERSITY				
E23	Biodiversity	The clearing of native vegetation must be minimised to the greatest extent practicable with the objective of reducing impacts to threatened ecological communities, threatened species and their habitat.	Throughout the Project	Section 4.2.2 Biodiversity Management Sub Plan
E24	Biodiversity	Prior to the commencement of work that would impact biodiversity values of (a)-(g), the Proponent must demonstrate to the satisfaction of the Planning Secretary that impacts to the following potential serious and irreversible impact entities have been avoided to the greatest extent possible: (a) White Box-Yellow Box Blakely's Red Gum Grassy Woodland and Derived Native Grassland comprising Plant Community Types (PCT) PCT 266, PCT 276, PCT 277, PCT 347 (b) Caladenia arenaria / Sand-hill Spider Orchid (c) Caladenia concolor / Crimson Spider Orchid (d) Euphrasia arguta / Euphrasia arguta (e) Grevillea wilkinsonii / Tumut Grevillea (f) Indigofera efoliata / Leafless Indigo (g) Prasophyllum sp. Wybong / Prasophyllum sp. Wybong Avoidance, reduction in impacts and additional conservation measures must be documented in consultation with BCS and the Planning Secretary.	Prior to commencing work that will impact on Biodiversity Values.	Biodiversity Management Sub Plan
E25	Biodiversity	Impacts to plant community types and species credit species must not exceed those identified in the documents listed in Tables in SCHEDULE 1 and SCHEDULE 2 of APPENDIX C and the corresponding number and class of ecosystem and species credits as set out in the BAM Biodiversity Credit Report which forms part of Condition A1(c).	NA	Biodiversity Management Sub Plan

Ref	Issue	Measure / Requirement	Timing	Document Reference
E26	Biodiversity	Prior to impacts on the biodiversity values of the CSSI, the number and classes of ecosystem credits and species credits (like-for-like) as set out in the BAM Biodiversity Credit Report which forms part of the Condition A1(c), must be retired. The number and classes of ecosystem credits and species credits that must be retired (prior to impacting the biodiversity values) are detailed in SCHEDULE 1 and SCHEDULE 2 of APPENDIX C. The Proponent may review and reduce the ecosystem and species credit requirements in Tables in SCHEDULE 1 and SCHEDULE 2 of APPENDIX C to reflect the final construction footprint; the further surveys required by Condition E31; and the resulting extent and type of plant community types to be cleared. Amendments to the ecosystem and species credit requirements must be undertaken in consultation with BCS and DECCEW(Cth) and documented in a report prepared in accordance the Biodiversity Assessment Method and accompanied by an updated Credit Report. The report and the updated Credit Report must be submitted to the Planning Secretary for approval prior to the retirement of credits.	Prior to impacts on Biodiversity values	Biodiversity Management Sub Plan
E27	Biodiversity	On the discovery of potential or actual impacts to any threatened communities or species not listed in SCHEDULE 1 or SCHEDULE 2 of APPENDIX C, all work which may impact the identified species or community must stop to prevent further impact and the Planning Secretary and BCS (and DCCEEW(Cth) where relevant) notified in writing. Work must not recommence until the relevant agencies have been consulted and any required management plans or approvals have been obtained. This condition does not permit additional impacts to Threatened Species and Threatened Ecological Communities that were not assessed as part of the CSSI.	Throughout the Project	Biodiversity Management Sub Plan
E28	Biodiversity	The retirement of the credits must be carried out in accordance with the *Biodiversity Conservation Act 2016* (BC Act), and can be achieved by: a) acquiring and retiring “biodiversity credits” within the meaning of the BC Act; and / or b) making a payment into the Biodiversity Conservation Fund of an amount equivalent to the class and number of ecosystem and species credits, as calculated by the Biodiversity Conservation Fund (BCF) Charge System; and/or c) funding a biodiversity conservation action that benefits the entity impacted and is listed in the ancillary rules of the Biodiversity Offset Scheme. Note: “Impacted site” in the application of the like-for-like offset rules is taken to be the subject land described in the Biodiversity Development Assessment Report referred to in Condition A1. The	NA	Credit Retirement Reports

Ref	Issue	Measure / Requirement	Timing	Document Reference
		subject land is the disturbance footprint subject to assessment under the Biodiversity Assessment Method. Note: "Impacted site" in the application of the like-for-like offset rules is taken to be the subject land described in the Biodiversity Development Assessment Report referred to in Condition A1. The subject land is the disturbance footprint subject to assessment under the Biodiversity Assessment Method.		
E29	Biodiversity	Evidence of the retirement of credits in satisfaction of Condition E28 must be provided to the Planning Secretary prior to impacts to the biodiversity values occurring.	Prior to commencing impacts on Biodiversity Values	Biodiversity Management Sub Plan Credit Retirement Reports
E30	Biodiversity	Where evidence of compliance with the Ancillary rules: Reasonable steps to seek like-for-like biodiversity credits for the purpose of applying the variation rules has been provided to, and approved by the Planning Secretary, the variation rules may be applied to retire the relevant ecosystem credits and species credits as set out in the BAM Biodiversity Credit Report (Variation). The variation rule does not apply to biodiversity credits for threatened species or threatened ecological communities that are listed as critically endangered under the Biodiversity Conservation Act 2016 or listed in any capacity under the Environment Protection and Biodiversity Conservation Act 1999.	NA	Credit Retirement Reports
Unsurveyed Areas				
E31	Unsurveyed Areas	Biodiversity surveys of unsurveyed land identified in SCHEDULE 3 of APPENDIX C must be completed to confirm the CSSI will not result in a greater impact than Condition E32. The surveys must be completed by an accredited assessor in accordance with the Biodiversity Assessment Method prior to retiring credits in accordance with Condition E27 for the unsurveyed areas.	Prior to retirement of credits	Unsurveyed Land Report
E32	Unsurveyed Areas	The CSSI must not result in an impact on Threatened Ecological Communities and/or threatened flora species within the unsurveyed lands identified in SCHEDULE 3 of APPENDIX C that is greater than that indicated in Table 4. Table 4: Threatened Ecological Communities and threatened species assumed present within unsurveyed lands	Throughout the Project	Unsurveyed Land Report
E33	Unsurveyed Areas	A report confirming the biodiversity impacts within unsurveyed land identified in SCHEDULE 3 of APPENDIX C must be prepared in consultation with BCS and submitted to the Planning Secretary for approval prior to Work that would impact biodiversity values occurring in the unsurveyed areas identified in SCHEDULE 3 of APPENDIX C. The Confirmation	Prior to work	Unsurveyed Land Report

Ref	Issue	Measure / Requirement	Timing	Document Reference
		of Biodiversity Impacts of Unsurveyed Land Report must include: a) details of the surveys completed in accordance with Condition E31; b) the location of biodiversity to be impacted; c) confirmation that impacts to the threatened ecological communities and threatened species impacted are the same or less than that permitted by Condition E32; d) demonstration of how detailed design and refinement of areas of impact has resulted in minimising impacts to threatened ecological communities and threatened species including maps identifying changes to areas of impact; and (e) any reduction in the type and/or credit requirements as a result of this report. Note: This condition does not preclude combining the requirements of Condition E24 and the confirmation of biodiversity impacts of unsurveyed land into one report, where the requirements of both conditions are met. Additional Box Gum Woodland Measures		
Additional Box Gum Woodland Measures				
E34	Additional Box Gum Woodland Measures	Within 12 months of the date of this approval, the Proponent must apply for, and, if approved, enter into a Biodiversity Stewardship Agreement (BSA) to ensure ongoing management and active restoration of 45.7ha hectares of Box Gum Woodland within a 123.15 hectare restoration site of a portion of Lot 3 DP 591854 as outlined in documents listed in Condition A1(e) and A1(f). The management and restoration actions are additional to credit obligations required by Condition E26.	Within 12 months of the date of this approval	Biodiversity Stewardship Agreement
E35	Additional Box Gum Woodland Measures	A Box Gum Woodland Restoration Plan must be prepared by an ecologist with appropriate qualifications and experience in Box Gum Woodland restoration determined in consultation with BCS for the management of the restoration site identified in Condition A1(e) and A1(f) to ensure: a) in perpetuity management of existing Box Gum Woodland b) increase in the extent of Box Gum Woodland and c) improve connectivity within and across the site identified in Condition E34. The Box Gum Woodland Restoration Plan must be submitted to and approved by the Planning Secretary prior to the commencement of construction. The Box Gum Woodland Restoration Plan must be implemented and made publicly accessible.	Prior to construction	Box Gum Woodland Restoration Plan

Ref	Issue	Measure / Requirement	Timing	Document Reference
E36	Additional Box Gum Woodland Measures	The Box Gum Woodland Restoration Plan must include: a) site map identifying the site boundary, existing vegetation to be maintained, areas to be actively restored and connectivity or movement corridors to be established or maintained; b) active restoration and maintenance activities, including seed collection, fire management, threatened species habitat management, feral pest and weed management; c) proposed restoration and connectivity targets; d) timeframes and responsibilities for meeting targets, including all actions to be completed prior to entering into a Biodiversity Stewardship Agreement; e) monitoring plan; f) adaptive management program to assess the effectiveness of the restoration and maintenance activities in meeting the targets identified in (c), and g) a process to ensure adaptive management measures, if targets are not met. Note: The Box Gum Woodland Restoration Plan is not intended to replace or duplicate the requirements for the management of the site in accordance with a Biodiversity Stewardship Agreement. This condition does not preclude utilising documents or data from the BSA from being included in the Box Gum Woodland Restoration Report.	Prior to construction	Box Gum Woodland Restoration Plan
E37	Additional Box Gum Woodland Measures	A Box Gum Woodland Restoration Report must be prepared by an ecologist with appropriate qualifications and experience in Box Gum Woodland restoration determined in consultation with BCS, every 12 months unless otherwise agreed by the Planning Secretary and made publicly available. The Box Gum Woodland Restoration Report must include: a) active restoration and maintenance activities completed in the previous 12 months; b) monitoring results; c) performance against restoration and connectivity targets; and d) adaptive management measures implemented in the event that targets are not being met. The Box Gum Woodland Restoration Report must be finalised within 2 months of each 12- month	Prior to construction	Box Gum Woodland Restoration Report

Ref	Issue	Measure / Requirement	Timing	Document Reference
		period. The Report must also be provided to the Planning Secretary and BCS on request. Note: This condition does not preclude utilising documents or data from the BSA from being included in the Box Gum Woodland Restoration Report.		
Riparian Vegetation				
E38	Riparian Vegetation	Riparian land disturbed during construction must be rehabilitated and revegetated with native species of local provenance from the relevant plant community type on completion of Work impacting the riparian land in accordance with the *Guidelines for controlled activities on waterfront land – Riparian corridors* (NRAR, 2018).	Construction	Biodiversity Management Sub Plan
Seed Collection, Revegetation and Rehabilitation				
E39	Seed Collection, Revegetation and Rehabilitation	Seed from native plants to be removed must be collected before clearing and used in revegetation, restoration and rehabilitation across the project area and the site identified in Condition E34. Plant propagation must ensure that native species of local provenance from the relevant native vegetation community are available for successful revegetation and landscaping.	Prior to construction	Biodiversity Management Sub Plan
Fauna Connectivity				
Fauna Crossings - Baseline Monitoring				
E41	Fauna Crossings - Baseline Monitoring	The design of the fauna connectivity measures must have regard to: a) baseline monitoring completed in accordance with Condition E40; b) fauna habitat/fauna furniture and refuges within and near the CSSI to facilitate fauna movement for all native species (threatened and non-threatened) that will potentially use the connectivity structures; c) relevant State and Commonwealth threatened species guidelines, species biology and the results of on-ground surveys; d) Fauna Sensitive Road Design Manual Volume 2 (Queensland Government, 2010); e) Fauna Sensitive Road Design Guidelines (VicRoads, 2012); and f) industry best practice measures.	Prior to construction	Biodiversity Management Sub Plan
Watercourse Crossings				
E42	Watercourse Crossings	Watercourse crossings must be designed in consultation with DPI Fisheries and in accordance with *Why do fish need to cross the road? Fish passage requirements for waterway crossings* (Fairfull & Witheridge, 2003).	Design	Biodiversity Management Sub Plan

Ref	Issue	Measure / Requirement	Timing	Document Reference
E43	Watercourse Crossings	Fauna access pathways to connectivity measures must: a) not be impeded by crossing loops, ancillary facilities, service roads and tracks, level crossings and roads; and b) use local native flora species in approaches to connectivity structures.	Design	Biodiversity Management Sub Plan
Connectivity Strategy				
E44	Connectivity Strategy	The draft Connectivity Strategy listed in Condition A1 must be finalised by a suitably qualified and experienced ecologist(s) with experience in fauna connectivity, fauna crossings and experimental design. The final Connectivity Strategy must be prepared in consultation with BCS and DPI Fisheries and submitted to the Planning Secretary for approval prior to construction commencing. The Connectivity Strategy must include, but not limited to: a) details of existing fauna movement corridors, pathways and connectivity informed by baseline monitoring completed in accordance with Condition E40 and other on-ground surveys completed; b) justification for the location and design, and spacing of the connectivity structures with reference to the requirements of Condition E41; c) justification for not proceeding with a fauna connectivity measure outlined in Table L.3 of the draft Connectivity Strategy and the location and design of alternative fauna connectivity measures where the measure could not be implemented; d) demonstration of the effectiveness of the proposed connectivity structures and measures in terms of location, design and number to mitigate impacts to the relevant threatened species, and that the design will: (i) maintain or improve connectivity and movement pathways of species within regional, local and riparian corridors; (ii) reduce the risk of mortality for threatened species; (iii) be located at sufficient frequency along the alignment, based on the ecological requirements of the targeted species, including but not limited to home range size, movement patterns, and habitat use; and (iv) consider the effects of connectivity structures on the maintenance or improvement of	Prior to construction	Draft Connectivity Strategy

Ref	Issue	Measure / Requirement	Timing	Document Reference
		population viability and gene flow for targeted species; e) details and design (including a map) of all connectivity structures including: (i) flight diversion structures and (ii) fauna exclusion fencing f) a map showing the location and design of all fauna connectivity measures to be implemented g) the maintenance activities for all connectivity structures and measures for the life of the impact of the CSSI, including timing and frequency of maintenance actions, including after flooding events; h) an assessment of the flooding risk for proposed structures and measures to confirm and provide for flood immunity of those structures as a result of this assessment; i) include Operational Fauna Connectivity Monitoring, Predator Prevention and Adaptive Mitigation Program required by Condition D7.		
Fauna Funnel and Exclusion Fencing				
E45	Fauna Funnel and Exclusion Fencing	Fauna funnel fencing and exclusion fencing must be provided to prevent fauna from accessing the rail alignment. The fencing must be installed before the commencement of operation. The fencing must be designed in accordance with best practice measures in consultation with suitably qualified experts in both fauna fencing and the target fauna species (threatened and non-threatened species) and in consideration of baseline monitoring results required by Condition E40. Note: It is envisaged that different types of fauna fencing will be required in different areas depending on the requirements to exclude or funnel the target species.	Design Construction Pre-operation	Relevant Design Report – structures Biodiversity Management sub-plan
Re-use of Timber				
E46	Re-use of Timber	Cleared native vegetation and other landscape features must be reused as part of the CSSI, including for re-snagging of waterways, in consultation with DPI Fisheries. If reuse is not practicable, consultation with the relevant council(s), landcare groups and relevant state agencies must be undertaken to determine if: (a) hollows, tree trunks, mulch, bush rock and root balls; and (b) collected plant material, seeds and/or propagated plants; can be used by others in habitat enhancement, beneficial re-use and rehabilitation work, before pursuing other disposal options.	Design Construction Pre-operation	Relevant Design Report Biodiversity Management sub-plan
FLOODING				

Ref	Issue	Measure / Requirement	Timing	Document Reference
E47	Flooding	All practicable measures must be implemented to ensure the design, construction and operation of the CSSI will not adversely affect flood behaviour, or adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses.	Design Construction Operation	Stormwater and Hydrology Design Reports
Flood Modelling				
E48	Flood Modelling	The hydraulic and hydrological flood modelling undertaken during the design of the CSSI and the assessment of its flood impacts must be undertaken consistent with the Flood Modelling Specifications listed in APPENDIX B SCHEDULE 2. In addition the modelling must be to a standard equal to or better than that in the RtS referenced in Condition A1. In the event of any inconsistency between the flood modelling in the RtS and the Flooding Modelling Specifications listed in APPENDIX B SCHEDULE 2, the Flood Modelling Specifications prevail.	Design	Stormwater and Hydrology Design Reports
Independent Peer Review of Hydraulic and Hydrological Modelling				
E49	Independent Peer Review of Hydraulic and Hydrological Modelling	Hydraulic and hydrological flood modelling completed in accordance with Condition E48 and APPENDIX BSCHEDULE 2 must be independently peer reviewed.	Design	Stormwater and Hydrology Design Reports
E50	Independent Peer Review of Hydraulic and Hydrological Modelling	The peer review required by Condition E49 must be undertaken by a suitably qualified and experienced hydrologist who has extensive experience in flood modelling including with the hydrological and hydraulic software used for the model. This hydrologist must be independent of the Proponent and the organisation(s) that prepared the flood model for the documents listed in Condition A1, and be approved by the Planning Secretary, having regard to the Department's Post Approval Guidance for Infrastructure Projects: Seeking Approval from the Department for the Appointment of Independent Experts (DPIE, 2020).	Design	Stormwater and Hydrology Design Reports
E51	Independent Peer Review of Hydraulic and Hydrological Modelling	The peer reviewer must verify whether the flood model and the modelled final CSSI design complies with Condition E48 and APPENDIX B SCHEDULE 2. The peer review must include undertaking the following tasks: a) comprehensively review the flood model files; b) assess the establishment, calibration, validation and operation of the flood model including the identification of any modelling results classified as model noise; c) identify and document existing and future purposes for which the model can and cannot be used, including adaptation of	Design	Stormwater and Hydrology Design Reports

Ref	Issue	Measure / Requirement	Timing	Document Reference
		this model by others, and any limitations on this; d) document the review findings and provide written confirmation that the review report is consistent with the requirements of this condition and accurately determines the flood related aspects of the design and compliance by Condition E55; e) review the monitoring methodologies required by Condition E72. Note: The review of the monitoring methodologies required by (e) above can be completed separately.		
E52	Independent Peer Review of Hydraulic and Hydrological Modelling	The peer reviewer must prepare a report that details the activities undertaken during the peer review and its findings. Where the review identifies deficiencies or non-compliances within the flood model or the CSSI design, these are to be rectified prior to finalisation of the model, the CSSI design and/or the Flood Design Verification Report.	Design	Flood Design Verification Report
E53	Independent Peer Review of Hydraulic and Hydrological Modelling	The peer reviewer's report must be appended to the Flood Design Verification Report prior to seeking agency comment and the Planning Secretary's approval required in Condition E66. Notes: 1. The independent peer reviewer must have extensive experience with the software packages applied in the modelling for the PIR and the Flood Design Verification Report, although this may not necessarily include the specific software version(s) used in the PIR and Flood Design Verification Report, provided the software version updates are not relevant to the peer review. 2. An interim version/s of the peer review may be conducted consistent with the processes in Condition E67.	Design	Flood Design Verification Report
Impacts on Flood Behaviour				
E54	Impacts on Flood Behaviour	The CSSI must be designed with the objective to meet or improve upon the flood performance identified in the RtS referenced in Condition A1. Variation consistent with the requirements of this approval at the rail corridor is permitted to effect minor changes to the RtS design with the intent of improving the flood performance of the CSSI.	Design	Flood Design Verification Report Stormwater and Hydrology Design Reports
E55	Impacts on Flood Behaviour	The CSSI must be designed and constructed so changes in the flood behaviour will not exceed the Quantitative Design Limits (QDLs) listed in APPENDIX BSCHEDULE 1, as assessed in accordance with the flood modelling specifications in APPENDIX BSCHEDULE 2, except as provided in Condition E58 below.	Design	Flood Design Verification Report Stormwater and Hydrology Design Reports
E56	Impacts on Flood Behaviour	The requirements of Conditions E54 and E55 apply in any and all of the following circumstances: a) on land located:	Design	Flood Design Verification Report

Ref	Issue	Measure / Requirement	Timing	Document Reference
		(i) beyond the rail corridor; and (ii) on any public road within the rail corridor; b) during any flood event up to and including the 1% AEP event as described in the RtS; and c) in any storm duration.		Stormwater and Hydrology Design Reports
E57	Impacts on Flood Behaviour	If the CSSI does not meet the requirements of Condition E55 in relation to resultant velocity that exceeds the erosion threshold velocity (ETV), the Proponent must prepare and implement the Operational Erosion Mitigation and Management Program required by Condition E68.	Design	Flood Design Verification Report Stormwater and Hydrology Design Reports
E58	Impacts on Flood Behaviour	If it is not practical to modify the design of the CSSI to meet the requirements of Condition E55, the Proponent must, in instances of non-compliance with Condition E55: a) document the extent of the non-compliance and the impact to all landowners (public and private) and environment including biodiversity and soil stability; and b) justify why it is not practical to achieve compliance through CSSI design changes including provision of details of design options investigated to achieve compliance; and c) consult with and obtain the written agreement of the roads authority (where relevant); and d) consult with and provide full disclosure of likely impacts resulting from non-compliance with the QDL and obtain the written agreement of the affected landowner to the non- compliance. Such an agreement may involve works, measures, maintenance activities, acquisitions, or other commitments by the Proponent to the landowner. All written agreements must be legally binding and meet any requirements of relevant legislation. Notes: 1. Nothing in this condition prevents the use of mediation in accordance with the Communication Strategy required by Condition B2. 2. Nothing in this approval prevents tasks or actions completed in compliance with the conditions of approval occurring concurrently, where this does not result in a non-compliance with the approval.	Design	Flood Design Verification Report Stormwater and Hydrology Design Reports
E59	Impacts on Flood Behaviour	The Proponent must prepare a Flood Design Consultation Protocol, to outline the steps that the Proponent will take where there are non-compliances with the QDLs, in accordance with Condition E58, to consult with landowners, road	Design	Flood Design Consultation Protocol

Ref	Issue	Measure / Requirement	Timing	Document Reference
		authorities, and TfNSW. The Flood Design Consultation Protocol must include: a) when non-compliances will be notified to the landowner or roads authority; b) time provided to the landowner and roads authority to consider the non-compliance; c) process for seeking agreement to the non-compliance and any associated works, measures, maintenance activities, acquisitions, or other commitments by the Proponent to the landowner; and d) the process for mediation and resolution of disputes outlined in the Communications Strategy required by Condition B2. The Flood Design Consultation Protocol must be prepared prior to construction and made publicly available in accordance with Condition B18.		
Determination of Erosion Threshold Velocities (ETVs)				
E60	Determination of Erosion Threshold Velocities (ETVs)	Should the Proponent seek to replace the default Erosion Threshold Velocity (ETV) of 0.5m/s (refer Velocity QDL in APPENDIX BSCHEDULE 1) with a site-specific ETV then an Erosion Threshold Velocities Report must be prepared by a suitably qualified geomorphologist or scour/erosion specialist with experience in calculating the erosion threshold velocities of erosive floodplain soils in Eastern Australia.	Design	Erosion Threshold Velocities Report
E61	Determination of Erosion Threshold Velocities (ETVs)	The Erosion Threshold Velocities Report must: a) determine ETVs for every location for which site-specific ETVs are sought; b) be based on literature and guidelines relevant to the project's location; c) utilise determination methods that measure the ETVs directly within an hydraulic flume (Direct Method) to determine ETVs for a range of sites within the Project that are representative of all sites within the Project; d) if necessary, utilise soil classifications to infer ETVs (Indirect Method) from the ETVs determined using the Direct Method; e) assume worst case ground vegetation conditions, which for the majority of locations will be bare soil conditions; f) state an ETV for all sites and whether the default ETV, or a determined ETV (whether calculated or inferred from a calculated value) has been adopted; g) document the procedures used to determine the ETVs for all sites; and	Design	Erosion Threshold Velocities Report

Ref	Issue	Measure / Requirement	Timing	Document Reference
		h) justify procedures used to determine the sites chosen for ETV determination using the Direct Method and the Indirect Method.		
E62	Determination of Erosion Threshold Velocities (ETVs)	The methodology/ies used to determine the ETVs must be submitted to and approved by the Planning Secretary in advance of submitting the Erosion Threshold Velocities Report required by Condition E60 for the Planning Secretary's approval.	Design	Erosion Threshold Velocities Report
E63	Determination of Erosion Threshold Velocities (ETVs)	The Erosion Threshold Velocities Report must be developed in consultation with the Department. The Report must be submitted to and approved by the Planning Secretary prior to finalisation of any Interim Flood Design Verification Report, or the Flood Design Verification Report prepared in accordance with Conditions E64 to E67 (FDVR and Interim FDVR), whichever occurs earlier.	Prior to finalisation of any Interim Flood Design Verification Report	Erosion Threshold Velocities Report
Flood Design Verification Report				
E64	Flood Design Verification Report	A Flood Design Verification Report (FDVR) must be prepared to detail flood behaviour under existing conditions and how this would change with the final detailed design of the approved CSSI. The FDVR must demonstrate compliance (or otherwise) with Conditions E54 to E58.	Design	Flood Design Verification Report
E65	Flood Design Verification Report	The Flood Design Verification Report must include: a) the CSSI design used in the preparation of the Flood Design Verification Report; b) details of the hydraulic and hydrological flood modelling including: (i) the establishment, calibration, validation and operation of any computer models (including hydraulic and hydrology models); (ii) a description of all flood behaviour used in the design of the CSSI; (iii) details of the flood modelling assumptions and inputs including blockage calculations and assumptions for each cross-drainage structure; (iv) demonstration that the modelling conforms with all the requirements of APPENDIX B; (v) a copy of the flood modelling outputs required to demonstrate compliance with Conditions E54 to E58; c) floor level surveys of potentially affected buildings to accurately confirm compliance with afflux limits. Where a floor level has not been surveyed, the Report shall adopt the existing ground level as the floor level, with appropriate annotation;	Design	Flood Design Verification Report

Ref	Issue	Measure / Requirement	Timing	Document Reference
		d) an assessment of compliance of the final design of the CSSI with the requirements of Conditions E54 to E56, including a table of all non-compliances, and documentation of the process and outcomes required by Conditions E57 and E58. Written agreements, in accordance with Conditions E58(c) and E58(d) may be provided to the Planning Secretary separate to the FDVR; e) an assessment of the impacts of the final design on the Stockinbingal village and adjacent rural land (i.e. land within Stockinbingal zoned RU5 and any land directly adjacent to land zoned RU5 or separated from it by a road or railway) in the 1% plus climate change AEP event and details of the final design's capacity to mitigate these impacts; f) all design and/or mitigation measures to address adverse impacts to existing erosion for all instances in which the CSSI: (i) exceeds the velocity QDL specified in APPENDIX BSCHEDULE 1 and causes the resultant velocity to exceed the erosive threshold velocity; or (ii) is within an area that is actively eroding; g) an assessment of: (i) risk to life caused by formation failure in flood events based on an evaluation of the probabilities and consequences of formation failure; (ii) aquaplaning risks where the CSSI produces additional inundation of highways or sealed roads with a speed limit of 80km/h or greater; and (iii) the impacts of the CSSI on erosion, scouring, bank stability, stream stability and geomorphology including with regard to NRAR's Guidelines for Controlled Activities on Water Front Land (DPE 2022); and h) a detailed response outlining how recommendations of the independent peer review required by Condition E49 have been incorporated into the flood modelling or justification for why recommendations have not been incorporated; (i) the Erosion Threshold Velocities Report required by Conditions E60 to E62; and (j) the Operational Erosion Monitoring and Mitigation Program required by Conditions E68 to E70.		
E66	Flood Design Verification Report	The Flood Design Verification Report must be submitted to the Planning Secretary for approval at least one month prior to the commencement of construction of permanent works that may impact on	One month prior to the commencement of construction	Flood Design Verification Report

Ref	Issue	Measure / Requirement	Timing	Document Reference
		flooding. Works that may impact on flooding cannot commence until the Flood Design Verification Report is approved by the Planning Secretary. The Flood Design Verification Report including the flood model and the model results must be submitted for review by BCS, DCCEEW Water, TfNSW and Councils and any comments received addressed prior to submitting the Flood Design Verification Report to the Planning Secretary. Note: Where the information included in the FDVR relates to that reviewed by an independent peer reviewer in accordance with Condition E49, the Planning Secretary will consider how any findings or recommendations made by the Independent Peer Reviewer were addressed and resolved. For the purposes of Condition E66, "permanent works that may impact of flooding" includes but is not limited to: any flood storage, earthen embankment, viaduct, bridge, rail formation, culverts, and drainage including longitudinal drainage. Interim Flood Design Verification Report	of permanent works	
Interim Flood Design Verification Report				
E67	Interim Flood Design Verification Report	The Proponent may provide a program for review of an interim FDVR at defined point/s of project design development by the Planning Secretary, in consultation with BCS, DCCEEW Water, TfNSW and Councils. The program must be submitted to the Planning Secretary at least one month before the date an Interim FDVR would be submitted. This program must: a) define the points at which complete interim versions of the FDVR will be provided for review; b) provide for review of a detailed methodology of the formation failure assessment required by Condition E65(g); c) allow each agency and the Planning Secretary at least one month for each review of the interim FDVR; d) provide for every version of the interim FDVR: (i) an interim Independent Peer Review of Hydraulic and Hydrological Modelling to meet the requirements of Condition E49; and (ii) each of the requirements of the FDVR detailed in Condition E65; and e) detail the process for revising the FDVR in response to comments provided on the interim FDVR. The Final FDVR required by Condition E65 must include a summary of comments received on the Interim FDVR and how these were addressed.	Design	Interim Flood Design Verification Report
Operational Erosion Mitigation and Monitoring Program				

Ref	Issue	Measure / Requirement	Timing	Document Reference
E68	Operational Erosion Mitigation and Monitoring Program	An Operational Erosion Mitigation and Monitoring Program (OEMMP) must be developed to respond to changes in erosion as a result of the CSSI and implement appropriate measures to mitigate erosion. The OEMMP must be implemented for all circumstances in which the CSSI: (a) exceeds the velocity QDL specified in APPENDIX BSCHEDULE 1 and causes the resultant velocity to exceed the erosive threshold; or (b) is within an area that is actively eroding.	Pre-operation	Operational Erosion Mitigation and Monitoring Program
E69	Operational Erosion Mitigation and Monitoring Program	The OEMMP must be prepared in consultation with BCS, DCCEEW Water, relevant council(s) and landowner(s).	Pre-operation	Operational Erosion Mitigation and Monitoring Program
E70		The OEMMP must include: a) All design (including placement and alignment of drainage structures to mimic existing flow directions) and mitigation measures implemented within the project corridor as identified in Condition E65 and any agreements for mitigation measures outside the rail corridor required by Condition E58(d) to the extent that those measures or agreements relate to erosion; b) monitoring and adaptive management measures, including: (i) identification of monitoring areas including the upstream and downstream ends of all drainage structures, that meet the criteria identified in Condition E68 and E58, 50 metres upstream and 150 metres downstream from each structure or to the end of any continuous active erosion (whichever is the longer); (ii) a baseline Prior to construction survey of conditions within the monitoring areas; (iii) monitoring annually and after rain events greater than a 20% AEP for a period of 15 years of operation or as otherwise approved by the Planning Secretary; (iv) a process for adaptive management and mitigation measures if monitoring determines the project is adversely affecting erosion; and (v) a process for addressing complaints received that relate to erosion. The OEMMP must form part of the Flood Design Verification Report required by Condition E64.	Pre-operation	Operational Erosion Mitigation and Monitoring Program

Ref	Issue	Measure / Requirement	Timing	Document Reference
		A copy of the monitoring results with appropriate commentary must be submitted to the Planning Secretary for information, within three months of completing the monitoring. Any rectification measures identified within the monitoring results must be developed in consultation with the affected parties and implemented as agreed with the affected parties, within twelve months of the monitoring results unless timing extension is agreed in writing with the landowner. Note: The requirements of Conditions E68 to E70 apply in addition to the requirements of Condition E57.		
Flood Review after Construction				
E71	Flood Review after Construction	Following substantial completion of a section or stage of the CSSI and for the first 15 years of operation, the Proponent must prepare Flood Review Report(s) within three months after the first defined flood event for each of the following flood magnitude ranges that occur within or adjacent to the rail corridor – greater than 1% AEP, 1-5% AEP, 5-10% AEP and 10-20% AEP events (using AEP event trigger levels as agreed by the Secretary). The Flood Review Report(s) must be prepared by a suitably qualified and experienced hydrologist(s) and include: a) a comparison of the observed extent, level, and duration of the flooding event against those predicted in (or inferred from) the Flood Design Verification Report required by Condition E64; b) identification of the properties and infrastructure affected by flooding during the reportable event; and c) where the observed extent and level of flooding or other flooding or erosion impacts exceed those predicted due to the CSSI with the consequent effect of adversely impacting on property(ies), structures, infrastructure or the environment, and/or exceed the requirements specified in Condition E55: (i) determine if the exceedance is attributable to the CSSI, and (ii) where the cause is attributable to the CSSI, identify measures (including but not limited to physical alterations to the CSSI's design and/or revised operational maintenance measures or a combination of both) that would be implemented to reduce future adverse impacts of flooding from similar events related to the CSSI, including the timing and	Operation	Flood Review Report(s)

Ref	Issue	Measure / Requirement	Timing	Document Reference
		responsibilities for implementation. A copy of the Flood Review Report(s) must be submitted to the Planning Secretary BCS, the relevant roads authority and relevant council(s) for information, within three (3) months of finalising the report. Any rectification measures identified within the Flood Review Report(s) must be developed in consultation with the affected parties and implemented within the timeframes specified in the Flood Review Report(s) or as agreed with the affected parties.		
E72	Flood Review after Construction	To analyse the lengths of rail corridor impacted by rainfall and consequential flood events for the purposes of Condition E71 the Proponent must develop spatially defined monitoring zones and associated monitoring methodologies for the flood catchments modelled in Condition A1. The monitoring methodologies must provide an approach to infer rainfall intensities utilising the available Bureau of Meteorology rainfall monitoring stations suitable for each catchment, as well as utilising the available streamflow data and water level records. The methodology must be developed in consultation with BCS and DCCEEW Water and submitted to the Planning Secretary for approval within six (6) months prior to the commencement of operation of the CSSI.	Operation	Flood Review Report(s)
Flood Emergency Response Plan (FERP) for Flood Risks within the Rail Corridor				
E73	Flood Emergency Response Plan (FERP) for Flood Risks within the Rail Corridor	The Proponent must prepare and implement a Flood Emergency Response Plan (FERP) which documents how the risks to life and property within the rail corridor are to be safely managed during a flood. The FERP must detail activities before, during and after a flood, including for staff training and maintenance, and updating of the FERP. The FERP must: a) be prepared by an experienced flood emergency response specialist who has extensive experience in preparation of these plans; b) must confirm that residual flood risks are acceptable and the procedures within the FERP are consistent with best practice and the requirements of the Flood Risk Management Manual (2023) and its 'Toolkit'; c) be appended to the Flood Design Verification Report, and d) detail the development of a flood warning system in the upper reaches of Dudauman Creek. The flood warning system should have the capacity to be adapted for use during	Design	Flood Emergency Response Plan

Ref	Issue	Measure / Requirement	Timing	Document Reference
		the operational stage as a formal flood warning system for Stockinbingal. Once operational, equipment or plans developed for the Flood Emergency Response Plan (FERP) must be offered to the relevant agency for ongoing implementation and use. Note: Nothing in this condition prevents the adaptation of an existing flood management or emergency plan to satisfy this condition.		
Information to Facilitate Management of Flood Emergency Risks beyond the Rail Corridor				
E74	Information to Facilitate Management of Flood Emergency Risks beyond the Rail Corridor	Where the CSSI has the potential to adversely impact flood risks to life or property beyond the rail corridor, the Proponent must document the flood risk information in sufficient detail so that relevant emergency services personnel, infrastructure asset owners and managers, and other affected parties can prepare, respond and recover from future flood emergencies. This must include but not be limited to: a) documentation of the changes to flood behaviour including levels, depths, velocities, time of first inundation, duration of inundation etc, that may result in adverse impacts to life and property beyond the rail corridor, in any future flood events including events up to the PMF; b) consideration of changes to flood behaviour that may result from CSSI infrastructure failures or embankment collapses where these may occur during floods; c) provision of sufficient detail and scope to enable the relevant personnel or agency (including the NSW SES, the relevant Council(s), affected property or infrastructure owners) to prepare for management of flood emergencies; and d) respond to requests for information about the CSSI from those personnel or agencies in (c) to assist them in preparing their own flood emergency response plans. This documentation shall be appended to the Flood Design Verification Report and be endorsed as consistent with the requirements of this condition by the same specialist preparing and certifying the FERP (required by Condition E73). Note: affected parties include but are not limited to: a) land and property owners; b) infrastructure owners; c) EES; d) SES; and e) the relevant council(s), state and local government agencies.	Design	Flood Design Verification Report

Ref	Issue	Measure / Requirement	Timing	Document Reference
E75	Information to Facilitate Management of Flood Emergency Risks beyond the Rail Corridor	Flood information resulting from the requirements of this approval, including flood reports, models and geographic information system outputs, and work as executed information and the dimensions and finished levels of all structures within flood prone land, must be made available to the relevant council(s), TfNSW, BCS and the SES upon request. The relevant councils, TfNSW, BCS and the SES must be notified in writing by the proponent that the information is available no later than one (1) month following the completion of construction. Information requested by a relevant council, TfNSW, BCS or the SES must be provided within three (3) months of the request.	Prior to construction	Flood Emergency Management Sub-plan
E76	Information to Facilitate Management of Flood Emergency Risks beyond the Rail Corridor	The CSSI must be designed, constructed and operated so as to maintain the NSW Water Quality Objectives where they are being achieved as at the date of this approval, and contribute towards achievement of the NSW Water Quality Objectives over time where they are not being achieved as at the date of this approval, unless an EPL in force in respect of the CSSI contains different requirements in relation to the NSW Water Quality Objectives, in which case those requirements must be complied with. Note: If it is proposed to discharge construction stormwater to waterways, a Water Pollution Impact Assessment will be required to inform licensing, consistent with section 45 of the POEO Act. Any such assessment must be prepared in consultation with the EPA and be consistent with the National Water Quality Guidelines, with the level of detail commensurate with the potential water pollution risk.	Design Construction Operation	Flood Emergency Management Sub-plan
E77	Information to Facilitate Management of Flood Emergency Risks beyond the Rail Corridor	The CSSI must be designed, constructed and operated to: a) ensure all drainage feature crossings (permanent and temporary watercourse crossings and stream diversions) new or modified surface water drainage (including cess drains), depressions are designed and constructed and maintained in accordance with Guidelines for controlled activities on waterfront land: riparian corridors (Department of Industry, 2018) and Policy and Guidelines for Fish Habitat Conservation and Management (Department of Primary Industries, 2013); b) locate all scour protection work associated with replacement culverts or the construction of new culverts within the rail corridor, or as agreed to by the relevant landowner in accordance with Condition E57; c) ensure that there is no permanent interception of, and/or connection with, groundwater;	Design Construction Operation	Flood Emergency Management Sub-plan

Ref	Issue	Measure / Requirement	Timing	Document Reference
		d) ensure all discharges from new or modified surface drainage (including cess drains) adjacent to the new and upgraded track are released at a controlled rate to prevent scour; and e) ensure that any recycled wastewater (including recycled/treated water) proposed for use by the CSSI, considers risks to human health or the receiving environment and meets the relevant standards.		
E78	Information to Facilitate Management of Flood Emergency Risks beyond the Rail Corridor	Unless an EPL is in force in respect to the CSSI and that licence specifies alternative criteria, discharges from construction water treatment plant(s), where required, to surface waters must not exceed: a) the Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2018 (ANZG 2018) default guideline values for toxicants at the 95 per cent species protection level; b) for physical and chemical stressors, the guideline values set out in Tables 3.3.2 and 3.3.3 of the Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2000; and c) for bioaccumulative and persistent toxicants, the ANZG 2018 values at a minimum of 99 per cent species protection level. Where the ANZG 2018 does not provide a default guideline value for a particular pollutant, the approaches set out in the ANZG 2018 for deriving guideline values, using interim guideline values and/or using other lines of evidence such as international scientific literature or water quality guidelines from other countries, must be used.	Design Construction Operation	Flood Emergency Management Sub-plan
E79	Information to Facilitate Management of Flood Emergency Risks beyond the Rail Corridor	Prior to construction impacting a landowner anywhere on the alignment, the Proponent must consult with the landowner and/or relevant roads authority that is located immediately adjacent to new or upgraded culverts to determine the potential for impacts on infrastructure, dwellings, property access, agricultural productivity, farm operations and farm dams (including changes in water supply yield, reliability of supply, flood flows and embankment stability) due to the introduction or alteration of flows. Where potential adverse impacts are identified, the Proponent must consult with the affected landowner or relevant roads authority on the management measures that will be implemented to mitigate the impacts. The outcomes of the consultation with affected landowners or relevant roads authority must be documented.	Prior to construction	Consultation Manager
E80	Information to Facilitate Management of	In addition to the requirements of Condition E79, prior to construction, the Proponent must prepare a register (the Register) of all farm dams within 100m	Design Construction	Farm Dam Register

Ref	Issue	Measure / Requirement	Timing	Document Reference
	Flood Emergency Risks beyond the Rail Corridor	upstream and 500m downstream of the rail alignment. The Register must include: a) property, location within property and owner; b) approximate surface area, depth and volume; c) alignment of dam inflow and outflow for 500m upstream and 100m downstream of the dam; d) identification of all contour banks, drains or other water diverting structures that influence the water supply yield of existing farm dams; e) catchment area feeding the dam; f) identification of all surface water and groundwater sources supplying the dam; and g) a map showing the items in (a) to (f) above. The components of the Register must be compiled in consultation with the landowner. Copies of parts of the register and supporting documentation that relate to a landowners' property must be provided to the landowner prior to construction. A copy of the Register must be provided to the Planning Secretary at the same time as submission of the Flood Design Verification Report.	Operation	
E81	Information to Facilitate Management of Flood Emergency Risks beyond the Rail Corridor	The design of the Project including the longitudinal drainage and the cross drainage, is to be prepared to ensure there are no significant impacts to the farm dams in the Register and the other items listed in Condition E77. The hydrological modelling, calculations or other assessments demonstrating no significant impacts are to be documented.	Design	Relevant design reports (drainage)
E82	Information to Facilitate Management of Flood Emergency Risks beyond the Rail Corridor	Where culverts, bridge abutments and other cross drainage structures are designed to pass flood and surface water flows through the rail formation, the orientation of these structures is to be aligned with the existing flow direction to minimise disturbance of existing flow patterns around the entries and exits to these structures, or as otherwise agreed by the Secretary.	Design	Relevant design reports (drainage)
Construction Requirements				
E83	Construction Requirements	The construction of the CSSI must protect the integrity of riparian corridors in accordance with the Guidelines for controlled activities on waterfront land: Riparian Corridors (Department of Industry 2018) when carrying out Work within 40 metres of a watercourse.	Construction	Sensitive Area Plan Section 4.2 Biodiversity Management Sub-plan
Surface Water Monitoring Program				

Ref	Issue	Measure / Requirement	Timing	Document Reference
E84	Surface Water Monitoring Program	A Surface Water Monitoring Program must be prepared in consultation with DCCEEW Water for construction and for a minimum of two years from commencement of operation or as otherwise agreed with the Secretary. The Surface Water Monitoring Program must include, but not be limited to: a) identify surface water monitoring locations, frequency and duration at discharge points and selected watercourses where works are being undertaken; b) identify surface water monitoring parameters; c) include water quality objectives, parameters and criteria from documents listed in Condition A1; d) monitoring of operational meters installed, recording and reporting to Natural Resources Regulator, in accordance with the relevant requirements of the NSW Non-Urban Water Metering Policy (DPIE, 2020) and clause 21(6) of the Water Management (General) Regulation 2018. e) monitoring to ensure water quality complies with relevant drinking water criteria from the National Water Quality Management Strategy Australian Drinking Water Guidelines 6 2011 (National health and Medical Research Council 2017) f) monitoring geomorphological changes downstream of water treatment plant(s) (where required) and on watercourses' (at locations where the velocity QDL is exceeded or there is active erosion) physical structure on at least four cases of inundation to ensure mitigation measures are achieving desired outcomes; g) trigger points for responding to any monitored changes which adversely impact on baseflows of creeks in the vicinity of the CSSI, including the implementation of additional protection measures to address these changes and their associated timing (trigger points must be defined and designed as part of the Program in consultation with DCCEEW Water); h) methods for providing the data collected to the relevant water authority where discharges are directed to their assets; and	Prior to construction Construction Operation as applicable	Surface Water Monitoring Program Soil and Water Management Plan Section 9.2

Ref	Issue	Measure / Requirement	Timing	Document Reference
		i) a method for providing the surface water monitoring data to DCCEEW Water every six months during construction and for a minimum period of two years from commencement of operation or as otherwise agreed with the Secretary. Note: With regards to monitoring data to be provided to DCCEEW Water, the format of the dataset must be both in a tabulated and electronic quality-controlled data (.csv, Excel) ready to use format.		
E85	Surface Water Monitoring Program	The Surface Water Monitoring Program for construction must be submitted to and approved by the Planning Secretary before construction and the Surface Water Monitoring Program for operation must be submitted to and approved by the Planning Secretary prior to the completion of construction. The Surface Water Monitoring Programs for construction and operation must be implemented. Note: Nothing in this condition prevents the Proponent from preparing separate or combined Surface Water Monitoring Programs for the construction and operational phases of the CSSI.	Prior to construction Construction Operation as applicable	Surface Water Monitoring Program Soil and Water Management Plan
TRAFFIC, TRANSPORT AND ACCESS				
E86	Traffic, transport and access	Construction traffic must not use local roads or privately-owned roads unless no alternative access is available. Use of private access roads must be in accordance with Conditions C7 and C8. Local or privately owned roads used for access to ancillary facilities, construction sites, and temporary accommodation must be identified in the Construction Traffic, Transport and Access Management Sub-plan required by Condition C13.	Construction	Construction Traffic, Transport and Access Management Sub-plan Section 4.2
E87	Traffic, transport and access	Where bus stops (including school bus stops) are required to be temporarily closed or relocated during construction, such closure must not occur until relocated bus stops are functioning and are within 400 metres of the original bus stop or as otherwise agreed with the relevant council and bus operator. The relocation of bus stops must be undertaken in consultation with the relevant council and bus operator, and details regarding the relocations provided to affected communities (and educational facilities in relation to school bus stops) at least 14 days prior to the relocation occurring.	Construction	Construction Traffic, Transport and Access Management Sub-plan Section 4.2 Section 5.2.5
Level Crossing Treatment Reports				
E88	Level Crossing Treatment Reports	In order to maintain safe and efficient operation of the road network, the Proponent must prepare a Public Level Crossing Treatment Report in consultation with Transport for NSW and the relevant road authority. The report must: a) illustrate the location of all public level crossings which traverse the CSSI.	Prior to construction Construction	Level Crossing Treatment Reports Section 4.2.7

Ref	Issue	Measure / Requirement	Timing	Document Reference
		b) list, and identify on a figure, any public level crossings that will be established, closed or upgraded; c) describe the treatments that will be implemented at new and/or upgraded crossings; d) include measures to avoid potential short-stacking at level crossings; and e) provide justification for any proposed closures. The assessment of level crossings must use the Australian Level Crossing Assessment Model (ALCAM). The process for determining the type of level crossing treatment must be consistent with the process outlined in the documents listed in Condition A1. The report must also include an assessment of the road risks, consistent with the guideline Railway Crossing Safety Series 2011, Plan: Establishing a Railway Crossing Safety Management Plan (NSW Roads and Traffic Authority, 2011). The design of any level crossing on a public road must be endorsed by Transport for NSW or the relevant road authority (where not Transport for NSW) prior to commencing construction of that crossing.		
E89	Level Crossing Treatment Reports	In order to maintain convenient property access, the Proponent must prepare a Private Level Crossing Treatment Report in consultation with landowners whose access will be affected by the establishment, closure or upgrading of a private level crossing. The report must: a) illustrate the location of all private level crossings which traverse the CSSI; b) list, and identify on a figure, any private level crossings that will be established, closed or upgraded; c) describe the treatments that will be implemented at new and/or upgraded crossings; and d) provide justification for any proposed closures and types of treatment, including decisions where no additional treatments are proposed; and e) provide details on the consultation undertaken with the landowners. The establishment, closure, relocation or modification of formal private level crossings must be included in the Individual Property Management Plans required by Condition E95, noting that any new, closure, relocation or modification must be in accordance with AS/RISSB 7658:2012 Railway Infrastructure – Railway Level Crossing and relevant rail safety legislation. The Proponent must consult with relevant landowners on the design of the	Prior to construction Construction	Level Crossing Treatment Reports Section 4.2.7

Ref	Issue	Measure / Requirement	Timing	Document Reference
		crossing and where consistent with relevant safety standards and legislation, incorporate reasonable landowner requirements into the design. Note: The presumption of this condition is that the proponent will adopt landowner requests unless they can demonstrate why they cannot.		
E90	Level Crossing Treatment Reports	The Public Level Crossing Treatment Report and Private Level Crossing Treatment Report must be submitted to and approved by the Planning Secretary at least one (1) month prior to the establishment, closure or upgrade of a public or private level crossing, as relevant. Individual reports may be submitted for each crossing or address a group of crossings or the entire CSSI.	One month Prior to establishment	Level Crossing Treatment Reports Section 4.2.7
Level Crossing Performance Report				
E91	Level Crossing Performance Report	Within one year of commencing operation, and ten years after commencement of operations, or as otherwise agreed by the Planning Secretary, the Proponent must prepare a Level Crossing Performance Report to confirm the operational traffic impacts of the level crossings on the classified road network. The review of the operation of the level crossings that interact with the classified road network must be carried out in consultation with TfNSW and the relevant councils and include: a) updated traffic analysis of movements on these roads; b) assessment of the level of service at these level crossings (queue length, queuing time delay); c) identification of additional new work outside of the rail corridor delivered by third parties that may result in changes to traffic movements as initially considered in the Level Crossing Treatment Report; d) assessment of the performance of the level crossing treatment outlined in the Public Level Crossing Treatment Report required by Condition E88; e) all reported near misses and collisions at level crossings within the project area; and f) mitigation measures to manage any actual or predicted road network performance impacts.	Operation as applicable	Level Crossing Treatment Reports Section 4.2.7
E92	Level Crossing Performance Report	Each Level Crossing Performance Report must also review the impact on level crossings interacting with local roads and include: (a) assessment of safety and/or operational impacts on nearby local and classified roads as a result of vehicle queuing; and (b) all reported near misses and collisions at level crossings within the project area.	Operation as applicable	Level Crossing Treatment Reports Section 4.2.7

Ref	Issue	Measure / Requirement	Timing	Document Reference
E93	Level Crossing Performance Report	Mitigation measures to manage any actual or predicted road network performance impacts resulting from the construction and operation of the CSSI must be implemented within one year of the completion of each report. The Report must include an implementation plan of the identified mitigation measures. The Level Crossing Performance Report must be made publicly available and provided to relevant road authority within 60 days of its completion.	Operation as applicable	Level Crossing Treatment Reports Section 4.2.7
Property Access				
E94	Property Access	The Proponent must consult with all landowners where the project will either temporarily or permanently impact farm operations, access to the property from public roads and/or to other parts of the property owned by the landowner to ensure that impacts to the use of properties are minimised and mitigated. This consultation must include, but not be limited to: a) safe and convenient stock and machinery movement across the rail corridor, including provision and maintenance of livestock holding pens; b) the safe and efficient operation of agricultural aerial activities; c) provision and maintenance of fencing of a type suited to stock and livestock husbandry operations conducted on the property (including barrier fencing where appropriate); and d) relocation of farm infrastructure necessitated by the CSSI. Details of consultation and agreed management measures must be included in the Individual Property Management Plans required by Condition E95. Note: Acquisition or adjustment of property and access that includes Crown land/roads must consider the relevant provisions in the Land Acquisition (Just Terms Compensation) Act 1991, Crown Land Management Act 2016 and/or the Roads Act 1993.	Throughout the Project	Property Management Plans Section 4.2 Section 6.4 Section 5.2.5
E95	Property Access	Individual Property Management Plans must be prepared to document the results of consultation with landowners identified to be consulted by Condition E94 with and agreed outcomes. The Proponent must implement all reasonable measures proposed by landowners. A copy of the Individual Property Management Plan must be provided to the landowner. A copy of each agreement must also be provided to the Planning Secretary upon request. Note: The Communications Strategy required by Condition B2 includes a procedure and mechanism to resolve and mediate disputes in relation to construction and impacts to property and infrastructure.	Throughout the Project	Property Management Plans Section 4.2 Section 6.4 Section 5.2.5 Section 7.6

Ref	Issue	Measure / Requirement	Timing	Document Reference
E96	Property Access	No part of any crossing loop may cross over any driveway, private road or public road unless determined in consultation with the relevant landowner and any other adjacent landowner whose access is impacted by the crossing loop, and with the relevant road authority for any road within 60m of the road and rail interfaces.	Design	Property Management Plans Section 4.2 Section 6.4 Section 5.2.5
E97	Property Access	The Proponent must maintain existing access to properties during the entirety of work where practicable. Where construction of the CSSI restricts a property's access to a public road, the Proponent must, until their primary access is reinstated, provide the property with temporary alternate access to an agreed standard determined through consultation with the landowner, at no cost to the property landowner, unless otherwise agreed with the landowner.	Throughout the Project	Property Management Plans Section 4.2 Section 6.4 Section 5.2.5
E98	Property Access	Where construction of the CSSI restricts the ability of a resident or landowner to access other parts of their property via a level crossing, the Proponent must, until the permanent level crossing is reinstated, supply the property with a temporary alternate level crossing access at a convenient location determined through consultation with the landowner, at no cost to the property landowner, unless otherwise agreed with the landowner. This can include other existing level crossings or a new alternative temporary level crossing access that is both safe and agreed to.	Throughout the Project	Property Management Plans Section 4.2 Section 6.4 Section 5.2.5
E99	Property Access	The Proponent must implement and maintain a system for the communication of train movements through level crossings to facilitate safe movement of livestock and agricultural machinery across the rail corridor. The system must be developed in consultation with landowners, stock operators and Local Land Services, and be accessible to them prior to the commencement of operation. A report detailing the implemented system and, the communication to stakeholders of the communication system must be submitted to and approved by the Planning Secretary at least one (1) month prior to commencement of operation.	Construction (one (1) month prior to commencement of operation).	Property Management Plans Section 4.2 Section 6.4 Section 5.2.5
Travelling Stock Routes				
E100	Travelling stock routes	The Proponent must notify Local Land Services at least 1 month prior to access and movement restrictions on the Old Cootamundra Road underbridge to enable alternative stock routes to be used.	One month prior	Section 7.6
Road Safety				
E101	Road safety	Before any local road is used by a heavy vehicle for the purposes of construction of the CSSI, a Road Dilapidation Report must be prepared for subject roads and bridges, and interfaces with regional roads. A copy of the Road Dilapidation Report must	Prior to use of a local road	Road Dilapidation Report(s)

Ref	Issue	Measure / Requirement	Timing	Document Reference
		be provided to the relevant road authority(ies) within one (1) month of completion of the road dilapidation survey and at least two weeks before the road is used by heavy vehicles associated with the construction of the CSSI for endorsement by the roads authority.		
E102	Road safety	The Road Dilapidation Report shall provide measures to ensure: a) roads deemed unsafe for the use of heavy vehicles are upgraded and repaired prior to use; b) roads used can safely accommodate heavy vehicle haulage based on volume, types and duration of use; and c) road repair is undertaken periodically before and during construction. Where the road is not up to standard due to condition, width, pavement type, and road geometry, the Proponent must upgrade the road to a service level equal to (or better than) the level it was being maintained immediately prior to construction and before heavy haulage commences, at no cost to the owner.	Prior to construction Construction	Road Dilapidation Report(s)
E103	Road safety	If damage to roads occurs as a result of the construction of the CSSI, the Proponent must, within six months of the completion of construction, either (at the relevant road authority's discretion): a) rectify the damage to restore the road to at least the condition it was in at the time of the dilapidation survey in Condition E101; or b) compensate the relevant road authority(ies) for the damage so caused. The amount of compensation may be agreed with the relevant road authority(ies), but compensation must be paid even if no agreement is reached; or c) where other agreements are in place, leave, maintain or remunerate for damages to these roads in accordance with these agreements. Damage to roads that affects road safety or trafficability as a result of the construction of the CSSI must be rectified by the Proponent as soon as practicable after the damage is identified, at no cost to the owner.	Operation as applicable (within six months of construction completion)	Road Dilapidation Report(s)
E104	Road safety	The CSSI (including any new overbridges, new or modified roads, and new or modified level crossings) must be designed and constructed to meet relevant design, engineering and safety guidelines, including the Austroads Guide to Traffic Management, and relevant Transport for NSW Austroads Supplements, as agreed with the roads authority and TfNSW. Consideration must be given	Design	Relevant design reports (roads)

Ref	Issue	Measure / Requirement	Timing	Document Reference
		to the movement of livestock, farming machinery, and pedestrians.		
E105	Road safety	The design of any new grade separated rail and road infrastructure, or new or modified roads must be developed in consultation with TfNSW and endorsed by the relevant roads authority prior to construction of the new road overbridges or new or modified roads.	Design	Section 7.6
E106	Road safety	An independent Road Safety Audit is to be undertaken by an appropriately qualified and experienced person in accordance with the Austroads Guide to Road Safety Part 6: Road Safety Audits, including but not limited to for all areas identified by the Safe Systems Assessment as requiring further assessment. Audit findings and recommendations must be actioned before construction of the relevant infrastructure and must be made available to the Planning Secretary on request.	Prior to construction	Section 7.6
Pedestrian and Cyclist Access				
E107	Pedestrian and Cyclist Access	Safe pedestrian and cyclist access, where such access exists, must be maintained around work sites during construction. In circumstances where pedestrian and cyclist access is restricted or removed due to construction activities, an alternate route which complies with the relevant standards must be provided and signposted.	Construction	Construction Traffic, Transport and Access Management Sub-plan
Country Rail Network Interface				
E108	Country Rail Network Interface	The design of any new or modified connection to the Country Rail Network (CRN) must be developed in consultation with the CRN Rail Infrastructure Manager (RIM) and TfNSW. Designs, management plans and programs of work must be endorsed by the CRN RIM and TfNSW prior to construction of any new or modified connection.	Design	Relevant Design Reports (rail) Section 7.6
SOCIAL IMPACTS				
Social Impact Management Plan				
E109	Social Impact Management Plan	A Social Impact Management Plan (SIMP) must be prepared for the CSSI to guide the management and monitoring of the social impacts of the CSSI including informing detailed design, and during construction and operation. The SIMP must: a) be prepared in accordance with the Social Impact Assessment Guideline (DPE 2023) by suitably qualified and experienced person(s) in the social sciences in accordance with Appendix B of the Social Impact Assessment Guideline (DPE 2023); b) be developed with involvement from directly affected communities and	One month prior to receipt of a CEMP	Socia Impact Management Plan

Ref	Issue	Measure / Requirement	Timing	Document Reference
		businesses, LALC/s, community organisations and representative groups, and councils; c) inform where relevant the preparation of CEMP Sub-plans and monitoring plans; d) define the period over which it will be implemented based on the duration of anticipated impacts it predicts; e) include measures to support the Community Complaints Mediator required by Condition B12; and The SIMP must be approved by the Planning Secretary at least one month before the receipt of CEMPs, CEMP sub-plans and monitoring programs required by Conditions C12 and C17. The SIMP must be implemented.		
E110	Social Impact Management Plan	The SIMP must include specific details of the commitments, programs and timing to secure and enhance positive social outcomes, and measures to minimise negative social and cumulative impacts associated with the CSSI, including: a) revisions to or refinement of the assessment of social impacts and risks; b) additional mitigation measures to address social impacts based on those committed to in the documents listed in Condition A1 and E109 above; c) details on social-oriented commitments to be delivered such as those related to employment diversity and procurement; and d) details of how measures will be targeted and adapted to meet the needs of affected communities, including legacy benefits to directly affected communities; and e) a monitoring program, prepared in accordance with S5.2 of the Social Impact Assessment Guideline (DPE 2023), to: (i) monitor, review, and report on the effectiveness of the identified measures; (ii) report on community engagement and complaints in relation to social issues; and (iii) report on adaptative management measures implemented or proposed. Reporting on the social impact performance of the CSSI, including monitoring results, must be reported quarterly with the results made publicly accessible in accordance with Condition B18.	Prior to construction	Socia Impact Management Plan
Temporary Workforce Accommodation Facilities				

Ref	Issue	Measure / Requirement	Timing	Document Reference
E111	Temporary Workforce Accommodation Facilities	Temporary workforce accommodation facilities must be completed prior to commencement of construction. The accommodation facilities must be designed to ensure sufficient capacity to house the peak workforce and operate to ensure for the surrounding community and accommodation facility occupants: (a) environmental amenity, particularly in relation to noise, air quality and lighting; and (b) security, in particular for vulnerable community members and workers.	Prior to construction	Temporary Accommodation Facilities Management Plan
E112	Temporary Workforce Accommodation Facilities	The accommodation facilities must be managed and appropriately staffed to minimise amenity and social impacts associated with the running of the accommodation facilities, both within and outside of the accommodation facility. Suitably qualified and experienced resident facility manager(s), security and paramedic staff must be employed and be available while the accommodation facilities is running.	Construction	Temporary Accommodation Facilities Management Plan
E113	Temporary Workforce Accommodation Facilities	Delivery servicing is limited to the work hours specified in Conditions E1 and E2, unless any out of hours noise related to the delivery servicing complies with Condition E3.	Construction	Temporary Accommodation Facilities Management Plan
E114	Temporary Workforce Accommodation Facilities	Outdoor recreation areas of the accommodation facilities can only be used between 7.00am and 10.00pm daily.	Construction	Temporary Accommodation Facilities Management Plan
E115	Temporary Workforce Accommodation Facilities	On site utilities including water, wastewater and electricity must be designed and located in accordance with Council specifications and relevant standards, in consultation with Council.	Construction	Temporary Accommodation Facilities Management Plan
E116	Temporary Workforce Accommodation Facilities	Telecommunications upgrades undertaken for the Accommodation facilities must consider the ability to provide long-term improvements to mobile telephone and internet capacity in surrounding areas.	Construction	Temporary Accommodation Facilities Management Plan
CODE OF CONDUCT				
E117	Code of conduct	The Proponent must prepare and implement a Workforce Code of Conduct for employees and contractors involved in the construction of the CSSI. The Code of Conduct must be prepared by a suitably qualified and experienced person(s) in the human resources sector and made publicly available prior to work commencing. The Code of Conduct sets out the ethical standards that employees are expected to adhere to in the construction site and interaction with the local community.	Prior to construction	Appendix A11 – Workforce Code of Conduct
E118	Code of conduct	The Employee Code of Conduct applies to all employees on the CSSI site (including the temporary workforce accommodation facilities) and those living in the community in the surrounding towns. The Employee Code of Conduct must: (a) set out the ethical standards for the behaviour	Prior to construction Construction	Appendix A11 – Workforce Code of Conduct

Ref	Issue	Measure / Requirement	Timing	Document Reference
		and conduct of employees on and off the site, including for driving on public roads; (b) include disciplinary actions where employee behaviour and conduct do not meet the ethical behaviour standards; and (c) include processes for responding to and addressing community complaints about the behaviour and conduct of employees.		
E119	Code of conduct	The Employee Code of Conduct must be reviewed 12 months after approval and annually thereafter for the duration of construction. Updates to the Code of Conduct must be approved by the ER. The updated Code of Conduct must be made publicly available within one month of approval.	Prior to construction Construction (annually)	Appendix A11 – Workforce Code of Conduct
BUSHFIRE MANAGEMENT				
E120	Bushfire management	The Proponent must minimise the fire risks of the development, including managing vegetation fuel loads within and adjacent to the corridor during construction of the CSSI, and ensure that the development: a) (i) complies with the relevant asset protection requirements in the RFS's Planning for Bushfire Protection 2019 (or equivalent) and Standards for Asset Protection Zones; (ii) incorporates the recommendations of a fire risk assessment as per TfNSW design standards; and (iii) is suitably equipped to respond to any fires on site, including provision of a 20,000 litre water supply tank fitted with a 65 mm Storz fitting and a FRNSW compatible suction connection located at each at locations identified by the fire risk assessment (including all weather access to the water supply tanks for Category 1 tankers); and b) develop procedures to manage fire hazard and potential fires on site, in consultation with the RFS and FRNSW; c) assist the RFS, FRNSW and emergency services as much as practicable if there is a fire in the vicinity of the site; and d) notify the relevant local emergency management committee following completion of construction of the development, and prior to commencing operations.	Prior to construction Construction	Safety Management Plan Bushfire Emergency Plan
Bushfire Emergency Plan				
E121	Bushfire Emergency Plan	Prior to commencing construction, the Proponent must develop and implement a comprehensive Bushfire Emergency Plan and detailed emergency procedures for the infrastructure, in consultation	Prior to construction	Bushfire Emergency Plan

Ref	Issue	Measure / Requirement	Timing	Document Reference
		with RFS and FRNSW and provide a copy of the plan to the local Fire Control Centre. The plan must: a) be consistent with: (i) RFS's Planning for Bushfire Protection 2019 (or equivalent); (ii) RFS's Development Planning - A Guide to Developing a Bush Fire Emergency Management and Evacuation Plan; (iii) the Fire and Rescue NSW Act 1989; (iv) the Work Health and Safety (WHS) Act 2011; b) identify the fire risks and hazards and detailed measures for the CSSI to prevent or mitigate fires igniting, including risks associated with the revegetation within the rail corridor; c) include procedures that would be implemented if there is a fire on-site or in the vicinity of the site; d) list works that should not be carried out during a total fire ban; e) include availability of fire suppression equipment, access and water; f) include procedures for the storage and maintenance of any flammable materials; g) detail access provisions for emergency vehicles and contact details for both a primary and alternative site contact who may be reached 24/7 in the event of an emergency; h) include a figure showing site infrastructure, any Asset Protection Zones and the on-site water supply tank(s); i) include location of hazards (physical, chemical and electrical) that may impact on fire fighting activities and procedures to manage identified hazards during fire fighting activities; j) include details of the location, management and maintenance of any Asset Protection Zone (including maintaining the Asset Protection Zones at a height of 100 mm or less at the construction compounds and temporary workforce accommodation facilities) and who is responsible for the maintenance and management of the Asset Protection Zone;		

Ref	Issue	Measure / Requirement	Timing	Document Reference
		k) include bushfire emergency management planning; l) include details of the how RFS and FRNSW would be notified, and procedures that would be implemented, in the event that: (i) there is a fire on-site or in the vicinity of the site; (ii) there are any activities on site that would have the potential to ignite surrounding vegetation; or (iii) there are any proposed activities to be carried out during a bushfire danger period that have the potential to ignite surrounding vegetation.		
Operational Access to be maintained for Bethungra Ranges				
E122	Operational Access to be maintained for Bethungra Ranges	The CSSI must be designed and operated to maintain access for an RFS Category 1 fire appliance and any other heavy vehicle as agreed with RFS, to cross the rail corridor to access the Bethungra Ranges in the area south of Dirnaseer Road and east of Ironbong Road. The Proponent must consult with RFS about crossing arrangements to facilitate access and adopt RFS' reasonable recommendations.	Design Construction	Section 7.6 Bushfire Emergency Plan
SPOIL MOUNDS				
E123	Spoil Mounds	Permanent spoil mounds are to be located: (a) within the rail corridor; (b) at least 50 metres from any watercourse or culvert or where there is a risk of erosion or flood impacts during any flood event ; (c) at least 500 metres from any residence; and (d) outside the drip lines of trees located on private property. Note: For the purpose of Condition E123(d), the Proponent must not affect trees outside of the rail corridor for the purpose of preventing those trees' driplines overhanging spoil mounds.	Construction	Soil and Water Management Plan Erosion and Sediment Control Plans Sensitive Area Plan Section 6.3 Section 5.2.5
E124	Spoil Mounds	Permanent spoil mounds are to comply with the following requirements: a) maximum height must not exceed the top height of the upgraded rail line directly parallel to the spoil mound or two metres (whichever is the lesser); b) not result in the clearing or covering of native vegetation beyond that described in the documents listed in Condition A1; c) not result in heritage impacts beyond that described in the documents listed in Condition A1; d) not result in additional changes to the upstream flooding regime beyond those described in the documents listed in Condition A1;	Construction	Soil and Water Management Plan Erosion and Sediment Control Plans Sensitive Area Plan Section 5.2.3 Section 5.2.5

Ref	Issue	Measure / Requirement	Timing	Document Reference
		e) not affect the downstream flood regime; f) not impede the flow of water through culverts; g) not contain any contaminated soil classified as unsuitable for the proposed land use, acid sulphate soils or green waste; h) are to be stabilised during construction of the CSSI; and i) are to be stabilised following completion of construction of the CSSI.		
VISUAL AMENITY AND LANDSCAPE IMPACTS				
E125	Visual Amenity and Landscape Impacts	The CSSI must be constructed and operated so as to minimise light spillage on residences. All lighting associated with the construction and operation of the CSSI must be consistent with the requirements of Australian Standard 4282-2019 Control of the obtrusive effects of outdoor lighting. Mitigation measures to manage any residual night-lighting impacts to residences must be undertaken in consultation with affected landowners.	Design Construction Operation	Relevant design plans Visual and Landscape Impact Mitigation Plan
E126	Visual Amenity and Landscape Impacts	The Proponent must prepare and implement a Visual and Landscape Impact Mitigation Plan to mitigate visual and landscape impacts of the CSSI. In preparing the plan, the Proponent must: (a) consult landowners and residents of land zoned RU1 within 500 metres of the CSSI and all landowners and residents of all other land within 100 metres of the CSSI; (b) prepare a landscaping plan for all locations identified in (a) above that specifies plants and trees to be used, with a preference for native vegetation and a program for implementation and ongoing maintenance; (c) document the responses in (a) above and detail how the Plan responds to them. The Visual and Landscape Impact Mitigation Plan must be made publicly available no later than six (6) months after the commencement of construction of the CSSI.	Prior to construction Construction	Visual and Landscape Impact Mitigation Plan Sensitive Area Plan Section 5.2.5 Section 6.3
HERITAGE				
E127	Heritage	The Proponent must not destroy, modify or otherwise physically affect any heritage items, including Aboriginal objects or Aboriginal places, outside of the CSSI construction boundary.	Throughout the Project	Heritage Management Sub-plan Sensitive Area Plan
E128	Heritage	The Proponent must not wilfully harm, modify, or otherwise impact human remains uncovered during the construction of the CSSI. Where identified, remains must be managed through the Unexpected Heritage Finds and Human Remains Procedure required by Condition E143.	Throughout the Project	Heritage Management Sub-plan Sensitive Area Plan

Ref	Issue	Measure / Requirement	Timing	Document Reference
				Unexpected Heritage Finds and Human Remains Procedure
E129	Heritage	Identified impacts to heritage items must be minimised through both design and construction. The measures for ensuring this are to be detailed in the Construction Heritage Management Sub-Plan required by Condition C17.	Throughout the Project	Heritage Management Sub-plan Sensitive Area Plan
Aboriginal Cultural Values and Heritage				
E130	Aboriginal Cultural Values and Heritage	All reasonable steps must be taken so as not to harm, modify or otherwise impact Aboriginal objects, Aboriginal values or Aboriginal places except as authorised by this approval.	Throughout the Project	Heritage Management Sub-plan (Appendix – Aboriginal Cultural Values Plan) Sensitive Area Plan
E131	Aboriginal Cultural Values and Heritage	The Registered Aboriginal Parties (RAPs) must be kept involved in the CSSI in accordance with Conditions B1 and B2 and the Aboriginal Community and Stakeholder Engagement Strategy required by Condition E132. The RAPs must continue to be provided with regular opportunities to be consulted about the Aboriginal cultural heritage management requirements of the CSSI.	Construction	Aboriginal Cultural Values Plan Aboriginal Community and Stakeholder Engagement Strategy
E132	Aboriginal Cultural Values and Heritage	Prior to the commencement of construction, an Aboriginal Community and Stakeholder Engagement Strategy shall be finalised and implemented, in consultation with Heritage NSW, relevant RAPs, and LALCs. The Strategy will detail and include, but not be limited to, the consultation process with Aboriginal stakeholders for the integration of Aboriginal Cultural Values into the CSSI.	Prior to construction	Aboriginal Cultural Values Plan Aboriginal Community and Stakeholder Engagement Strategy
Aboriginal Cultural Values Plan				
E133	Aboriginal Cultural Values Plan	An Aboriginal Cultural Values Plan must be prepared to inform how Aboriginal Cultural Values will be integrated into the broader design of the SSI including design elements (form and fabric), landscaping (the collection, propagation and replanting of traditional plant resources), language; and cultural design principles. The Plan must identify how interpretive themes and cultural values will be implemented and provide a timeframe for their provision during construction. The Plan must recognise the spiritual, intangible, linguistic and cultural values of the sites to Aboriginal people and address the full story of the place (s) (i.e. landscape through the eyes of Aboriginal people); Aboriginal design and story elements, patterns and motifs or other appropriate visual interpretations.	Prior to construction	Heritage Management Sub-plan (Appendix – Aboriginal Cultural Values Plan) Sensitive Area Plan

Ref	Issue	Measure / Requirement	Timing	Document Reference
		The Plan will be developed in conjunction with the Aboriginal Community and Stakeholder Engagement Strategy. The Strategy will detail the consultation process with Aboriginal stakeholders and identify the Aboriginal Cultural Values to be incorporated into the design of the CSSI. The Aboriginal Cultural Values Plan shall be submitted for the approval of the Planning Secretary one (1) month prior to commencing construction. The Aboriginal Cultural Values Plan must be implemented.		
E134	Aboriginal Cultural Values Plan	Aboriginal cultural heritage artefacts and culturally modified trees that are to be retained within the rail corridor are to be protected during routine maintenance and repair activities during operation in accordance with ARTC's standard operational environmental management procedures.	Operation	Aboriginal Cultural Values Plan
E135	Aboriginal Cultural Values Plan	Prior to the commencement of any ground disturbance work within areas identified as requiring archaeological investigation or salvage identified in documents listed in Condition A1, the Proponent must prepare and implement an Additional Aboriginal Archaeological Survey Methodology and an Aboriginal Archaeological Test Excavation Methodology. The methodology must include procedures for additional archaeological survey of Zones 5, 6, 9 and 10, and management protocols including consultation with the Registered Aboriginal Parties, for any Aboriginal objects and sites identified during the survey.	Construction	Heritage Management Sub-plan Aboriginal Archaeological Survey Methodology
E136	Aboriginal Cultural Values Plan	Following analysis of the test excavation results, the Proponent must prepare and implement an Aboriginal Archaeological Salvage Excavation Methodology.	Construction	Aboriginal Archaeological Salvage Excavation Methodology
E137	Aboriginal Cultural Values Plan	Following additional survey, test and salvage excavation, if sites are identified that exceed the expected level of significance identified in the Aboriginal Cultural Heritage Assessment Report, further consultation with Heritage NSW and the RAPs must be undertaken and consideration given, where feasible, for avoidance by the project.	Prior to construction Construction	Aboriginal Cultural Heritage Assessment Report Aboriginal Community and Stakeholder Engagement Strategy
E138	Aboriginal Cultural Values Plan	The Additional Aboriginal Archaeological Survey Methodology, Aboriginal Archaeological Test Excavation Methodology and Aboriginal Archaeological Salvage Excavation Methodology must be prepared by a suitably qualified expert in consultation with Heritage NSW and RAPs, and provided to the Planning Secretary for information at least one month prior to test or salvage excavation.	Prior to construction Construction	Heritage Management Sub-plan Additional Aboriginal Archaeological Survey Methodology Aboriginal Archaeological Test Excavation Methodology

Ref	Issue	Measure / Requirement	Timing	Document Reference
				Aboriginal Archaeological Salvage Excavation Methodology
E139	Aboriginal Cultural Values Plan	At the completion of Aboriginal cultural heritage survey and test and salvage excavations, an Aboriginal Cultural Heritage Excavation Report(s) must be prepared by a suitably qualified expert. The Aboriginal Cultural Heritage Excavation Report(s), must: a) be prepared in accordance with the Guide to Investigation, assessing and reporting on Aboriginal cultural heritage in NSW, OEH 2011 and the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales, DECCW 2010; and b) document the results of the archaeological survey and test excavations and any subsequent salvage excavations (with artefact analysis and identification of a final repository for finds). The RAPs must be given a minimum of 28 days to consider the report and provide comments before the report is finalised. The final report must be provided to the Planning Secretary, Heritage NSW, the relevant Councils, relevant LALCs and the RAPs within 24 months of the completion of the Aboriginal archaeological excavations (both test and salvage).	Prior to construction Construction	Aboriginal Cultural Heritage Excavation Report(s)
E140	Aboriginal Cultural Values Plan	Ground disturbance works and construction work may not commence in those areas where archaeological excavation and surface collection of Aboriginal objects is required (including areas identified as requiring further assessment) until the archaeological works described in the Aboriginal Cultural Heritage Assessment reports listed in Condition A1 have been completed.	Prior to construction Construction	Aboriginal Cultural Heritage Assessment reports
E141	Aboriginal Cultural Values Plan	At the completion of surface collection, test excavations, and salvage excavations, Aboriginal site impact recording forms (ASIRF) must be submitted to the Aboriginal Heritage Information Management System (AHIMS) and evidence provided of submission to the AHIMS Registrar.	Prior to construction Construction	Heritage Management Sub-plan Aboriginal site impact recording forms (ASIRF)
E142	Aboriginal Cultural Values Plan	Where previously unidentified Aboriginal objects or Aboriginal Places are discovered, all work must immediately stop in the vicinity of the affected area. Works potentially affecting the previously unidentified objects or places must not recommence until Heritage NSW has been informed. The measures to consider and manage this process must be specified in the Unexpected Heritage Finds and Human Remains Procedure required by Condition E143 and include registration in the	Prior to construction Construction	Heritage Management Sub-plan Sensitive Area Plan Unexpected Heritage Finds and Human Remains Procedure

Ref	Issue	Measure / Requirement	Timing	Document Reference
		Aboriginal Heritage Information Management System (AHIMS).		
Unexpected Heritage Finds				
E143	Unexpected Heritage Finds	An Unexpected Heritage Finds and Human Remains Procedure must be prepared to manage unexpected heritage finds in accordance with any guidelines and standards prepared by Heritage NSW and submitted to the Planning Secretary for information before the commencement of Work.	Prior to construction	Heritage Management Sub-plan Unexpected Heritage Finds and Human Remains Procedure
E144	Unexpected Heritage Finds	The Unexpected Heritage Finds and Human Remains Procedure, as submitted to the Planning Secretary, must be implemented for the duration of Work. Note: Human remains that are found unexpectedly during the carrying out of Work may be under the jurisdiction of the NSW State Coroner and must be reported to the NSW Police immediately.	Prior to construction Construction	Heritage Management Sub-plan Unexpected Heritage Finds and Human Remains Procedure
LAND USE AND PROPERTY				
Condition Surveys and Rectification				
E145	Condition Surveys and Rectification	Before commencement of any work, a structural engineer must undertake condition surveys of all buildings, structures, utilities and the like identified in the documents listed in Condition A1 as being at risk of damage. The results of the surveys must be documented in a Condition Survey Report for each item surveyed. Copies of Condition Survey Reports must be provided to the owners of the items surveyed, and no later than one month before the commencement of construction.	Prior to construction	Relevant design report (structures) Condition Survey Report
E146	Condition Surveys and Rectification	After completion of construction, condition surveys of all items for which condition surveys were undertaken in accordance with Condition E145 of this approval must be undertaken by a structural engineer. The results of the surveys must be documented in a Condition Survey Report for each item surveyed. Copies of Condition Survey Reports must be provided to the landowners of the items surveyed, and no later than three (3) months following the completion of construction.	Operation (no later than three months after completion of construction)	Relevant design report (structures) Condition Survey Report
E147	Condition Surveys and Rectification	The Proponent, where liable, must rectify any property damage caused directly or indirectly (for example from vibration or from groundwater change) by the construction or operation at no cost to the owner. Alternatively the Proponent may pay compensation for the property damage as agreed with the property owner.	Operation (no later than three months after completion of construction)	Relevant design report (structures) Condition Survey Report
SUSTAINABILITY				
E148	Sustainability	The CSSI must achieve a minimum ‘excellent’ rating for both ‘Design’ and ‘As built’ civil works, under the Infrastructure Sustainability Council of Australia infrastructure rating tool, or through the use of an equivalent process or an equivalent level of	Construction	Sustainability Management Plan Section 3.8

Ref	Issue	Measure / Requirement	Timing	Document Reference
		performance using a demonstrated equivalent rating tool. Evidence that these ratings have been achieved must be published on the proponent's website: (a) within 12 months of commencing Construction for the 'Design' rating; and (b) within 12 months of commencing of Operation for the 'As built' rating.		Section 5.2.8
E149	Sustainability	A Water Reuse Strategy must be prepared, which sets out options for the reuse of collected stormwater and groundwater during construction. The Water Reuse Strategy must include, but not be limited to: a) evaluation of reuse options; b) (b) details of the preferred reuse option(s), including volumes of water to be reused, proposed reuse locations and/or activities, proposed treatment (if required), and any additional licences or approvals that may be required; c) measures to avoid misuse of recycled water as potable water; d) consideration of the public health risks from water recycling; and e) a time frame for the implementation of the preferred reuse option(s). The Water Reuse Strategy must be prepared based on best practice and advice sought from relevant agencies, as required. The Strategy must be applied during construction and operation. Justification must be provided to the Planning Secretary if it is concluded that no reuse options prevail. The Water Reuse Strategy must be implemented and published on the project website. Note: Nothing in this condition prevents the Proponent from preparing separate Water Reuse Strategies for the construction and operational phases of the CSSI.	Prior to construction	Water Reuse Strategy
SOILS				
E150	Soils	Erosion and sediment controls must be installed and maintained, as a minimum, in accordance with the publication Managing Urban Stormwater: Soils & Construction (4th edition, Landcom 2004) commonly referred to as the 'Blue Book'.	Throughout the Project	Soil and Water Management Plan Erosion and Sediment Control Plan Sensitive Area Plan Section 5.2.3 Section 5.2.5
CONTAMINATION				
Role of Site Auditor				

Ref	Issue	Measure / Requirement	Timing	Document Reference
E151	Role of Site Auditor	A Site Auditor(s) must be engaged before the commencement of contamination investigations until the completion of construction to ensure contamination is appropriately managed. The Site Auditor is to review all documentation relevant to contamination, including previous site audits, and provide a written opinion on the contamination risk and the appropriateness of the reports and any proposed management measures of the site, including (but not limited to): (a) the management and monitoring plans in Conditions C12 and C17, where relevant, including any updates or amendments to those plans; (b) Sampling and Analysis Quality Plan in Condition E154; (c) Detailed Site Investigation Report(s) in Condition E155; (d) Remedial Action Plans in Condition E156; (e) Unexpected Finds Procedure for Contamination in Condition E161; and (f) Post-remediation validation reports.	Prior to construction	Section 9.4
E152	Role of Site Auditor	All recommendations made by the Site Auditor must be implemented before commencing work (other than intrusive work conducted as part of detailed site investigations) that could result in any disturbance of any land identified as an area of potential contamination.	Prior to construction	Section 9.4
E153	Role of Site Auditor	Evidence that a Site Auditor has reviewed each of the required plans and reports listed in Condition E151, and has issued an interim audit advice or a relevant Site Audit Statement regarding the appropriateness of those plans or reports must be appended to those plans or reports. Note: Any associated Site Auditor report, or interim audit advice or a relevant Site Audit Statement must made publicly available in accordance with Condition B18. Contamination Investigations	Prior to construction	Section 9.4 Site Audit Statement
Contamination Investigations				
E154	Contamination Investigations	A Sampling and Analysis Quality Plan (SAQP) must be completed prior to Detailed Site Investigations being undertaken. The SAQP must: a) be prepared by a suitably qualified and experienced contaminated land consultant(s) in accordance with the relevant guidelines made or approved by the EPA under section 105 of the Contaminated Land Management Act 1997 (CLM Act); b) be prepared where construction or land disturbing activity is to be undertaken, on sites identified as for medium to high risk sites as identified in the documents referred to in Condition A1, to ensure that field investigations and analyses will be undertaken in a way that enables the collection and reporting of reliable including	Prior to construction	Sampling and Analysis Quality Plan

Ref	Issue	Measure / Requirement	Timing	Document Reference
		(where applicable) the relevant site characterisation requirements of the detailed or targeted site investigations; and c) inform the development of Detailed Site Investigations.		
E155	Contamination Investigations	Detailed Site Investigations (DSI) must: a) be undertaken by a suitably qualified and experienced contaminated land consultant(s); b) be prepared in accordance with the relevant guidelines made or approved by the EPA under section 105 of the CLM Act; c) be undertaken before the commencement of work that would result in any disturbance of land identified as moderate to high risk areas of potential contamination in the relevant documents in Condition A1 or as updated by Condition E152; d) determine the nature and extent of contamination in soil, groundwater, surface water, ground gases and sediments (where applicable); e) consider whether contamination has the potential to pose an unacceptable risk to human health or the environment on or off-site; f) include recommendations for further investigations, remediation and/or management of contamination; g) be prepared in accordance with the land use criteria applicable to the final land use at the opening of the CSSI; h) be reviewed by the accredited Site Auditor with the intent of issuing Interim Audit Advice commenting on the adequacy of the report; and i) be provided to the Planning Secretary upon request, along any associated Site Auditor's Advice. 1. This condition does not prevent disturbance to land that is required to complete the Detailed Site Investigations. 2. The intention of this condition is to require Detailed Site Investigations of locations identified as an area of potential contamination to be completed before any form of excavation, including the use of hand tools, exposes soil. This will minimise risks to human health and/or the environment. 3. Detailed Site Investigation Reports must made publicly available in accordance with Condition B18. 4. Nothing in this condition prevents the preparation of individual Detailed Site Investigation Reports for separate contaminated sites.	Prior to construction	Detailed Site Investigation Reports

Ref	Issue	Measure / Requirement	Timing	Document Reference
		5. Any recommendations made in the Detailed Site Investigation Report for changes to management measures in the CEMP sub-plan(s) must be incorporated into the relevant subplan required by Condition C17, unless otherwise approved by the Planning Secretary.		
Remediation				
E156	Remediation	Where remediation is required to make land suitable for the final intended land use, a Remedial Action Plan must: a) be undertaken by a suitably qualified and experienced contaminated land consultant(s); b) be prepared in accordance with relevant guidelines made or approved by the EPA under section 105 of the CLM Act; c) outline remediation options to address the contamination and the final chosen remediation methodology to make the land suitable for the final intended land use; d) be reviewed by the accredited Site Auditor with the intent of issuing interim audit advice commenting on the adequacy of the report; and e) be provided to the Planning Secretary upon request, along with any associated Site Auditor's advice. Note: Nothing in this condition prevents the preparation of individual Remedial Action Plans for separate contaminated areas within the project footprint.	Construction	Remedial Action Plan
Site Audit Statement(s)				
E157	Site Audit Statement(s)	Before commencing remediation, a Section B Site Audit Statement(s) or an interim audit advice must be prepared by a Site Auditor that certifies that the Remedial Action Plan is appropriate and that the site can be made suitable for the proposed use. The Remedial Action Plan must be implemented and any changes to the Remedial Action Plan must be approved in writing by the Site Auditor. Note: Nothing in this condition prevents the Proponent from engaging the Site Auditor to prepare Site Audit Statements for separate contaminated sites.	Construction	Site Audit Statement(s)
E158	Site Audit Statement(s)	For any land identified as an area of moderate or high potential contamination risk, a Section A1 Site Audit Statement or A2 Site Audit Statement (accompanied by an EnvironmentalManagement Plan) and a Site Audit Report must be prepared which states that the contaminated land disturbed by the work has been made suitable for the intended land use. The Site Audit Statement and Site Audit Report must be provided to the relevant council after remediation and no later than before the	Construction	Site Audit Statement(s)

Ref	Issue	Measure / Requirement	Timing	Document Reference
		commencement of operation of the CSSI. Notes: 1. Nothing in this condition prevents the Proponent from obtaining Section A Site Audit Statements for individual parcels of remediated land. 2. As required by Condition E153, interim audit advice may be provided prior to a final Site Audit Statement and Site Audit Report. 3. Any associated Site Auditor Report, or interim audit advice or a relevant Site Audit Statement must made publicly available in accordance with Condition B18.		
E159	Site Audit Statement(s)	Contaminated land must not be used for the purpose approved under the terms of this approval until a Section A1 or A2 Site Audit Statement is obtained which states that the land is suitable for that purpose and any conditions on the Section A Site Audit Statement have been complied with.	Construction	Site Audit Statement(s)
E160	Site Audit Statement(s)	E160 Where required, any recommendations to minimise risk to human health or the environment or for the management of contamination arising, the Site Auditor's review, advice or audits must be incorporated into the relevant CEMP subplan and implemented.	Construction	Site Audit Statement(s)
Unexpected Finds				
E161	Unexpected finds	An Unexpected Finds Procedure for Contamination must: a) be prepared prior to the commencement of Work and must be followed should unexpected contamination or asbestos (or suspected contamination) be excavated or otherwise discovered; b) include details of who will be responsible for implementing the unexpected finds procedure and the roles and responsibilities of all parties involved; c) be reviewed by the Site Auditor and interim audit advice or a Section B Site Audit Statement provided certifying that the Unexpected Finds Procedure is appropriate; d) be provided to the Planning Secretary and the EPA upon request with a copy of the interim audit advice or Section B Site Audit Statement attached; and e) be implemented throughout work.	Prior to construction Construction	Unexpected and Incidental Finds Procedure Contaminated land and hazardous materials management plan
AIR QUALITY				
E162	Air quality	E162 In addition to the performance outcomes, commitments and mitigation measures specified in the documents listed in Condition A1, all practicable measures must be implemented to minimise the emission of dust, odour and other air pollutants during the construction and operation of the CSSI.	Prior to construction Construction	Air Quality Management Plan

Ref	Issue	Measure / Requirement	Timing	Document Reference
WASTE				
E163	Waste	Waste generated during construction and operation is to be dealt with in accordance with the following priorities: (a) waste generation is to be avoided and where avoidance is not reasonably practicable, waste generation is to be reduced; (b) where avoiding or reducing waste is not possible, waste is to be re-used, recycled, or recovered in accordance with the requirements of the Protection of the Environment Operations Act 1997 and its regulations; and (c) where re-using, recycling or recovering waste is not possible, waste is to be treated or disposed of in accordance with Condition E165.	Prior to construction Construction	Waste Management Plan Contaminated land and hazardous materials management plan Section 6.4.1
E164	Waste	The importation of waste and the storage, treatment, process, reprocessing or disposal of such waste must comply with the conditions of the current EPL for the CSSI, or be done in accordance with a Resource Recovery Exemption or Order issued under the Protection of the Environment Operations (Waste) Regulation 2014, as the case may be.	Prior to construction Construction	Waste Management Plan Contaminated land and hazardous materials management plan Section 6.4.1
E165	Waste	Waste must only be exported to a site licensed by the EPA for the storage, treatment, processing, reprocessing or disposal of the subject waste, or in accordance with a Resource Recovery Exemption or Order issued under the Protection of the Environment Operations (Waste) Regulation 2014, or to any site meeting applicable legislation and regulations, or to any other place that can lawfully accept such waste. Note: Notice must be given to the relevant site/s as soon as possible, and no more than 14 days before the proposed waste disposal.	Prior to construction Construction	Waste Management Plan Contaminated land and hazardous materials management plan Section 6.4.1
E166	Waste	E166 All waste generated during construction and operation must be classified in accordance with the EPA's Waste Classification Guidelines, with appropriate records and disposal dockets retained for audit purposes.	Prior to construction Construction	Waste Management Plan Contaminated land and hazardous materials management plan Section 6.4.1

Table 2-3 Crown Land Applicable to the Project

Crown Land Applicable to the Project	
Local Govt. Area	JUNEE
County	CLARENDON
Parish	BILLABUNG, BUTE, BETHUNGRA
Locality	BETHUNGRA, DIRNASEER, ILLABO

Crown Land Applicable to the Project			
Status:	**Lot**	**Section**	**DP**
Crown land located near	9	-	DP: 121766
Crown land located near	113	-	DP: 751396
Crown land located near	185	-	DP: 751396
Crown land being part	100	-	DP: 751398
Crown land located near	100	-	DP: 751398
Crown land located near	86	-	DP: 751398
Crown land located near	89	-	DP: 751398
Crown land located near	104	-	DP: 751401
Crown land located near	109	-	DP: 751401
Crown land located near	173	-	DP: 751401

Table 2-4 Crown Land Management Act 2016 CoA (LICENCE NUMBER RN 639859)

Ref	Issue	Measure / Requirement	Timing	Document Reference
Schedule 2a - SPECIAL CONDITIONS RELATING TO WHOLE OF LAND				
1	Commencement of Works under this Licence	The granting of this licence DOES NOT constitute an approval to commence works authorised under this licence. Authorised works under this licence CANNOT commence until the Holder receives formal approval from the Department of Planning and Environment for the project SSI-9406. The Holder is to formally notify the department upon receipt of formal approval for SSI-9406 prior to commencing works	Prior to construction	Section 2.1 Section 3.2 Section 3.6
2.	Native Title	Native title under the *Native Title Act 1993* (Cth) ("NTA") may exist with respect to the Land. To the extent that you, the licensee, are permitted to do something under this Licence, then your right to do the activity prevails over any native title rights and interests and the existence of those native title rights do not prevent you from doing the activity. In such a case, if the act is wholly inconsistent with the continued existence, enjoyment or exercise of the native title rights and interests. the native title continues to exist in its entirety but the rights and interests have no effect in relation to the act. For some activities under the Licence, you must first obtain the Minister's consent. In those cases, the Minister may only be able to consent to those acts if that consent can be given in accordance with the NTA.	Prior to construction Construction	Appendix A1 – Legal Requirements Heritage Management Sub-plan
3.	Compliance with Environmental Impact Statement (EIS)	The Holder shall carry out works as defined in the EIS for the project, (SSI-9406), as per documents submitted to the Department of Planning and Environment, and in accordance with any management plans established for the project. including mitigation measures to minimise impact on the environment and community.	Prior to construction Construction Operation as applicable	Illabo to Stockinbingal EIS (2022) This CEMP and the associated subplans

Ref	Issue	Measure / Requirement	Timing	Document Reference
Schedule 2a - SPECIAL CONDITIONS RELATING TO WHOLE OF LAND				
4.	Compulsory Acquisition	The Holder shall make submission to the department to formally acquire the area identified as being required for permanent occupation in this licence, under the *NSW Land Acquisition (Just Terms Compensation) Act 1991* within a timely manner. Upon finalisation of the acquisition, this licence will either be revoked in whole or revoked in part, and the provisions of Item 22 (6.027) of this Licence will apply to that revocation.	Prior to construction Construction	N/A
5.	Bush Fire	a) You must not carry out any hazard reduction burning on the Site except with any necessary approval from the Rural Fire Service and any required environmental approvals. b) Without limiting any other provision of this Licence and subject to sub-clause (d) below. You: i. must comply, at Your cost, with any requirements imposed upon You, as occupier of the Premises, including bush fire hazard reduction requirements under the *Rural Fires Act 1997;* ii. must maintain any fire trails and undertake bush fire hazard reduction activities necessary for the protection of Your infrastructure at Your cost; and to the extent necessary for these purposes; iii. may, with the prior written approval of the Minister which must not be unreasonably withheld, enter on the land of the Minister adjoining the Site. c) If You fail to carry out the requirements referred to in sub-clause (b)(i), the Minister may do so and recover the cost from You. d) The provisions of sub-clauses (b)(ii) and (c) do not operate if it is necessary for You to enter the land of the Minister adjoining the Land and the Minister's approval to enter that land has been refused.	Prior to construction Construction	Bushfire Management Plan
6.	No Interference with Other Licence Holders	The Holder shall not interfere with other licence holders authorised by the department to occupy Crown land and/or Crown roads. If this clause cannot be achieved, the Holder shall consult with the department prior to undertaking any works on the impacted areas.	Prior to construction Construction Operation	Section 2.1.1 Section 3.6 Section 6.4.2
7.	Restoration of Ground	Unless otherwise agreed in writing by the landowner: (a) Any opening in the ground or subsequent subsidence will be backfilled and consolidated; and (b) Any addition or alteration to the elevation or contour of the land will be removed In such a manner as to restore the surface to its normal condition. Particular care in this regard is to be taken when road surfaces are disturbed.	Construction Operation as applicable	Section 4.2.15
8.	Erosion	The Holder is to ensure mitigation measures are in place to minimise the risk of erosion, sedimentation, and impact on soil quality. Diversion or alteration to the natural overland flow of surface water is not permitted in	Construction	Soil and Water Management Plan Erosion and Sediment Control

Ref	Issue	Measure / Requirement	Timing	Document Reference
Schedule 2a - SPECIAL CONDITIONS RELATING TO WHOLE OF LAND				
		any way outside of the minimum necessary requirements for the protection of any road surface from erosion, or as approved in the CSSI Project Approval and any approved Soil and Water Management Plan.		Plans (Section 5.2.3) Sensitive Area Plan
9.	Maintenance of Waterways	The Holder will at all times during the Term ensure that the waterways & submerged land forming the whole or part of the Premises are kept clean and free from debris (whether floating or otherwise). The Holder will do all things necessary to ensure that a free-flowing circulation of water is maintained within the waterways forming part of the Premises, except as otherwise permitted under the CSSI Project Approval and any approved Soil and Water Management.	Construction	Soil and Water Management Plan Erosion and Sediment Control Plans (Section 5.2.3) Sensitive Area Plan (Section 5.2.5)
10.	Protection of riparian vegetation and soil conservation	The Holder must ensure the occupation of the authorised structures under this licence do not result in any degradation of the bed or the bank of any creek or watercourse and/or riparian vegetation. For the purpose of this special condition, 'degradation' does not include authorised works to the bed or bank of watercourses as permitted under the CSSI Project Approval. and in accordance with any approved Soil and Water Management Plan.	Construction	Biodiversity Management Subplan Soil and Water Management Subplan Section 5.2.3
11.	Weeds	The Holder is to ensure best practice management is in place in order to minimise the introduction and spread of weeds. Weeds identified should be managed and treated in accordance with the *Biosecurity Act 2015* and *Riverina Regional Strategic Weed Management Plan 2023-2027*, as relevant. or its updated version, and any conditions relevant under the CSSI Project Approval, or any approved Biodiversity Management Plan.	Construction	Section 6.4.1 Biodiversity Management Plan (Biosecurity Management Plan)
12.	Waste disposal	The holder acknowledges that all waste generated will be removed from site and disposed as per NSW Environment Protection Authority and local Council's policies, and in accordance with any requirements of the CSSI Project Approval.	Construction	Section 6.4.1 Waste Management Plan
13.	Definition of "Rail Line"	For the purposes of this licence, the purpose "Rail Line" has the same meaning as "Rail Infrastructure Facilities" as defined in Section 2.91 of the *State Environmental Planning Policy (Transport and Infrastructure) 2021.* "Rail Infrastructure Facilities" include: a) railway tracks, associated track structures, cuttings, drainage systems, fences, tunnels, ventilation shafts, emergency accessways, bridges, embankments, level crossings and roads, pedestrian and cycleway facilities, and {b) signalling, train control, communication and security systems, and {c) power supply (including overhead power supply) systems, and	N/A	N/A

Ref	Issue	Measure / Requirement	Timing	Document Reference
Schedule 2a - SPECIAL CONDITIONS RELATING TO WHOLE OF LAND				
		{d) railway stations, station platforms and areas in a station complex that commuters use to get access to the platforms, and {e) public amenities for commuters, and (f) associated public transport facilities for railway stations, and (g) facilities for the assembly, maintenance and stabling of rolling stock, and (h) facilities for the dismantling and stabling of rolling stock taken out of service, and (i) refuelling depots, garages, maintenance facilities and storage facilities that are for the purposes of a railway, and (j) railway workers' facilities, and {k) rail freight terminals, sidings and freight intermodal facilities, and {l) buildings for or related to railway purposes, but do not include buildings or works that are for residential, retail or business purposes and unrelated to railway purposes.		
14.	Aboriginal Heritage Site Recorded	Registered Aboriginal Heritage Site(s) has been identified within the licensed area. Damage or destruction of the site is an offence under the *National Parks & Wildlife Act 1974.* The licence holder is to contact Heritage NSW and email heritagemailbox@environment.nsw.gov.au or phone 02 9873 8500 to discuss what action (if any) needs to be taken to protect the site.	Construction	Heritage Management Sub-plan Unexpected and Incidental Finds Protocol and Procedure
15.	Inconsistencies	In the event of any inconsistency between these licence conditions and any Project Approval granted under SSI - 9406, the requirements of the Project Approval will take precedence over the licence conditions to the extent of that inconsistency.	Prior to construction Construction	Section 9.7.4
Schedule 2b - SPECIAL CONDITIONS RELATING TO CROWN ROAD ONLY				
1.	Right of Passage	If for any reason the actions of the Holder are inconsistent with the rights of passage and access that exist with respect to a crown road, the Minister may direct under S107 of the *Roads Act 1993* that the Holder provides the public with a satisfactory alternate route within 1 month of such direction. If the Holder fails to comply with the direction, the Minister may make the alteration directed and the Holder will be required to reimburse the Minister for the cost of the doing or effecting the work or thing on demand.	Construction	Section 6.4.1 Construction Traffic, Transport and Access Management Plan

2.1.3 Revised Mitigation Measures

Table 2-5 provides the Revised Mitigation Measures (RMMs) from the Submissions Report.

Table 2-5 RMMs relevant to CEMP Sub-Plans

Ref	Issue	Measure / Requirement	Timing	Relevant Document
BD-1	Impacts on fish passage	Watercourse crossing structures, both temporary and permanent in nature, would meet Inland Rail design standards and be designed in accordance with Why do fish need to cross the road? Fish passage requirements for waterway crossings (Fairfull, S. and Witheridge, G., 2003) and Policy and Guidelines for fish habitat conservation and management (DPI, 2013a) and Guidelines for controlled activities on waterfront land: riparian corridors (Department of Industry, 2018) as far as practicable.	Design Construction	Soil and Water Management Sub-plan (SWMSP) Biodiversity Management Sub-plan (BMSP)
BD-2	Fauna connectivity	A final fauna connectivity strategy would be prepared to guide detailed design, based on the draft fauna connectivity strategy provided in Appendix L of the revised BDAR	Prior to Construction	BMSP Fauna Connectivity Strategy
BD-3	Managing the potential for biodiversity impacts during construction	Pre-clearing surveys would be undertaken prior to construction, by a suitably qualified ecologist, in accordance with the biodiversity management plan. Specific surveys would include: - surveys for roosting microbats and birds in structures, including telegraph poles and buildings that are proposed to be removed - searches for nest trees - identification of hollow-bearing trees and logs requiring fauna management during removal - aquatic fauna salvage in watercourses or residual pools within 50 m of the construction footprint and in areas that would be enclosed by silt curtains (e.g. piling locations).	Construction Prior to clearing	BMSP
BD-4	Managing the potential for biodiversity impacts during construction	Clearing extents/site boundary/limit of works would be consistent with proposal extents defined in a condition of approval.	Construction	BMSP
BD-5	Managing the potential for biodiversity impacts during construction	The clearing extents/site boundary/limit of works would be clearly defined with flagging or marking tape, signage or other suitable means to delineate no-go areas. This delineation and marking process would align with the project proposal flagging/marking tape process and specifications.	Construction	BMSP
BD-6	Managing the potential for biodiversity (aquatic) impacts during construction	Direct impacts on in-stream vegetation and native vegetation on the banks of watercourses would be avoided as far as practicable by establishing appropriate setback distances.	Construction	BMSP SWMSP

Ref	Issue	Measure / Requirement	Timing	Relevant Document
ABD-1	Vegetation clearance management	The proposed access tracks in the northeast and southeast of the accommodation camp site would be located within existing disturbedareas/exotic grassland areas where possible. Surveys would be conducted within PCT 76 (Western Grey Box tall grassy woodland on alluvial loam and clay soils in the NSW South Western Slopes and Riverina Bioregions) during detailed design to ensure the siting of the access tracks avoids impacts on PCT 76 as far as possible. If impact on PCT 76 is unavoidable, tree clearing would be minimised by locating access tracks in vegetation gaps visible within aerial imagery, and the existing mapping and refined upon site inspection, targeting areas of previous disturbance/exotic grassland to minimise potential impacts to derived native grassland.	During design During Construction	BMSP Site Establishment Management Plan (SEMP)
T-1	Road user safety at changes to the road network	Road safety audits and risk assessment of the final design would be undertaken by independent advisors where changes to the road network are required, in accordance with relevant Austroads guidelines and supplements, to ensure the safety of all road users is considered in the design process. Audit findings would be actioned before construction of the relevant infrastructure.	During design	Traffic, Transport and Access Management Sub-Plan (TTAMSP)
T-2	Road user safety at level crossings	Public level crossings would be designed in accordance with relevant guidelines and standards, including AS 1742.7:2016: Manual of uniform traffic control devices (Standards Australia, 2016) and in consultation with Transport for NSW.	During design During Construction	Public Level Crossing Treatment Report Private Level Crossing Treatment Report
T-3	Closure of level crossings	Consultation with Transport for NSW would be undertaken regarding the proposed closure of level crossings.	Construction	Public Level Crossing Treatment Report Private Level Crossing Treatment Report CCS
T-4	Consultation during design development	Input would be sought from relevant stakeholders (including local councils, NHVR and TfNSW) prior to finalising the detailed design of those aspects of the proposal that affect the operation of road and other transport infrastructure under the management of these stakeholders. This would include confirming ongoing operation and maintenance arrangements for those assets under the control of other stakeholders.	During design	TTAMSP Design drawings and reports

Ref	Issue	Measure / Requirement	Timing	Relevant Document
HF-1	Flooding impacts	The design would continue to be refined where practicable to not worsen existing flooding characteristics at sensitive receptors, up to and including the one per cent Annual Exceedance Probability (1% AEP) event. Detailed flood modelling would consider potential changes to: - building and property inundation (including floor level surveys and consideration of existing inundation levels) - contour banks and dams (including survey of these features to ensure continuous operation of these features) - existing rail line, at rail connections - level crossings and road flood levels and extent of flooding along roads - overland flow paths and storage effects of construction and operational infrastructure. Flood modelling, and any mitigation identified as an outcome of modelling, would consider floodplain risk management plans, and would be undertaken in consultation with the relevant local council and local emergency management committees; the NSW Department of Planning and Environment, the NSW State Emergency Service and potentially impacted landowners. Following refinement of the cross drainage design, where QDL exceedances occur in land adjacent to the corridor that cannot be resolved through infrastructure measures within the corridor, justification of these residual exceedances will be documented and mitigation measures negotiated with the affected landowners for the affected land areas. Negotiation with landowners will occur through a structured Flood Consultation Protocol including the opportunity for mediation.	During design During Construction	Design drawings and reports
HF-2	Construction water supply	Construction water supply options would continue to be explored during detailed design and would include: - ongoing consultation with Goldenfields Water (or an equivalent commercial water supply operator) to access the local reticulated network - investigation of options to utilise recycled water from sewage treatment plants - access to groundwater bores where it can be bought on-market - investigation into the use of farm dams for water harvesting and storage.	During design During Construction	SWMSP Groundwater Mitigation and Management Plan (GMMSP) Water Reuse Strategy
HF-3	Retaining water flows	Detailed design would consider channelling of water around Ironbong Road level crossing and Burley Griffin Way realignment, and the potential formation of detention basins as a means of retaining flows in a similar manner to existing farm dams and flood levees.	During design	SWMSP Design drawings and reports

Ref	Issue	Measure / Requirement	Timing	Relevant Document
HF-4	Rail formation failure	Geotechnical investigation and design of new and existing structures will be completed to minimise the risk of rail formation failure. This will occur during the detailed design phase.	During design	SWMSP Design drawings and reports
WQ-1	Water quality	The construction impact zone defined for the proposal would allow sufficient room for provision of temporary and permanent erosion and sediment control measures/pollution control measures where required based on consideration of overland flow paths and flood risk. Water quality control measures would be designed to capture and treat the 80th percentile five-day rainfall event and any other requirements as outlined in the Blue Book.	During design During Construction	SWMSP Design drawings and reports
WQ-2	Surface water monitoring	A surface water monitoring framework would be developed and implemented as part of the soil and water management plan in the Construction Environmental Management Plan (CEMP). It would identify: - monitoring locations at discharge points and selected watercourses where works are being undertaken - monitoring parameters - frequency and duration of monitoring. The monitoring framework would include relevant water quality objectives (WQOs), parameters and criteria. It would be developed in consultation with the NSW Department of Planning and Environment and the NSW Environment Protection Authority.	Prior to Construction	SWMSP Surface Water Monitoring Program (SWMoP)
GW-1	Management of groundwater bores	Any bores that are decommissioned will be undertaken in accordance with the Minimum Construction Requirements for Water Bores in Australia—Edition 4 (NUDLC, 2020).	At all times	GMMSP
GW-2	Management of groundwater bores	Any existing groundwater bores that are destroyed during construction would be replaced subject to discussion with the registered owner.	At all times	GMMSP
GW-3	Avoid or minimise groundwater seepage	Appropriate drainage measures would be installed at the base of cuts and along high-walls to manage groundwater seepage, in the unlikely event that they be encountered.	Construction	GMMSP Design drawings and reports
AH-1	Avoiding and minimising impacts on Aboriginal heritage	Detailed design and construction planning would avoid direct impacts on identified items/sites of Aboriginal heritage significance as far as reasonably practicable. The location of construction compounds and associated access routes would be reviewed to ensure, as far as practicable, they are not located in areas of medium or high archaeological potential.	During design During Construction	Heritage Management Sub-Plan (HMSP) Aboriginal Community and Stakeholder Engagement Strategy(ACSES) Aboriginal Cultural Values Plan (ACVP)

Ref	Issue	Measure / Requirement	Timing	Relevant Document
AH-2	Management of salvaged items	A detailed salvage methodology would be prepared by a suitably qualified archaeologist in consultation with relevant registered Aboriginal parties. The methodology would be included in the Aboriginal cultural heritage management plan (mitigation measure AH-9) to ensure any artefacts salvaged are managed in accordance with the requirements of the National Parks and Wildlife Act 1974). This includes artefacts within the areas of Zone 1 and Zone 2. The methodology would include the process for consultation with Heritage NSW and registered Aboriginal parties in accordance with the Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (DECCW, 2010a) the Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW, 2010b), and the Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW (OEH, 2011a). It would also include requirements in relation to the management of, and care and control plans for, salvaged objects. Registered Aboriginal parties would be engaged to assist in the salvage, which would be managed by an appropriately qualified archaeologist engaged to support the process. Detailed analysis and reporting of cultural material collected would be provided to the NSW Department of Planning and Environment.	Prior to the commencement of any ground disturbance work in relevant areas	HMSP ACSES ACVP
AH-3	Management of salvaged items	Archaeological survey and test excavation (if required) would be performed prior to the commencement of impact works at Zones 5, 6, 9 and 10, to confirm the precise nature and extent of the archaeological resource and to inform the selection of the applicable mitigation measures.	Prior to the commencement of impact works at Zones 5, 6, 9 and 10	HMSP ACSES ACVP
AH-4	Management of salvaged items	Additional mitigation and management measures would be developed, in consultation with the registered Aboriginal parties, for areas or items of Aboriginal cultural heritage significance identified during the archaeological survey (mitigation measure AH-3). The additional measures would be included in the Aboriginal cultural heritage management plan (mitigation measure AH-9).	Prior to Construction	HMSP ACSES ACVP

Ref	Issue	Measure / Requirement	Timing	Relevant Document
AH-5	Avoiding and minimising impacts on Aboriginal heritage	A pre-construction survey would be undertaken to update the Aboriginal Heritage Information Management System (AHIMS) record and/or confirm the locations of the previously listed AHIMS sites that could not be located during the site survey: - Artefact Sites ARTC12 and 16 (AHIMS 50-5-0268, 50-5-0272) - Artefact Sites ARTC10 and 11 (AHIMS 50-2-0054, 50-2-0055). Surveys would be undertaken with registered Aboriginal parties in accordance with the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW, 2010a). If the sites are located, impacts would be avoided, as far as practicable, and protection measures put in place in accordance with the Aboriginal cultural heritage management plan (mitigation measure AH-9). Any sites with the potential to be impacted would be managed in accordance with the salvage methodology (mitigation measure AH-2).	Prior to Construction	HMSP ACSES ACVP
AH-6	Impacts on artefact scatters	Surface collection (salvage) of artefacts that were identified in Zones 1, 2, 4, 7 and 11 would occur prior to construction in accordance with the approved salvage methodology.	Prior to Construction zones 1, 2, 4, 7 and 11	HMSP ACSES ACVP
AH-7	Avoiding and minimising impacts on Aboriginal heritage	For registered AHIMS sites and Aboriginal sites identified during archaeological surveys located in close proximity to, but outside of, the proposal site, the extent of these sites would be demarcated with highvisibility fencing as far as practicable to avoid accidental impact during construction impacts. This particularly applies to scarred trees ARTC6, ARTC18, ARTC19, ARTC21. The sites would also be clearly marked on all mapping and plans used by contractors working on the project. Scarred tree ARTC20 which is located within the proposal site, should be marked on all mapping and plans used by contractors working on the project and should be fenced with high visibility fencing to avoid accidental impact during construction works. Potential excavation near the tree should include consideration of a tree protection zone, defined in consultation with an arborist.	During Construction	HMSP ACSES ACVP
AH-8	Avoiding and minimising impacts on Aboriginal heritage	Clearing extents/site boundary/limit of works would be consistent with project extents defined in a condition of approval and would be clearly defined with flagging	During Construction	HMSP ACSES ACVP

Ref	Issue	Measure / Requirement	Timing	Relevant Document
		or marking tape, signage or other suitable means to delineate no-go areas.		
NAH-1	Avoiding and minimising impacts on Aboriginal heritage	Detailed design and construction planning would avoid direct impacts on identified items/sites of non-Aboriginal heritage significance as far as reasonably practicable. This would include the following listed items within the construction footprint: - Stockinbingal Railway Station - Stockinbingal Heritage Conservation Area.	During Design During Construction	HMSP ACSES ACVP
NAH-2	Engagement with relevant non-aboriginal heritage stakeholders	During the detailed design and construction planning phase, ARTC will continue engagement with Heritage NSW and relevant local councils to ensure impacts on non-Aboriginal heritage assets are minimised and mitigated.	During Design During Construction	HMSP ACSES ACVP
NV-1	Managing the potential for construction noise and vibration impacts	Location and activity-specific construction noise and vibration impact statements would be prepared based on a more detailed understanding of the construction methods, including the size and type of construction equipment, duration and timing of works, construction traffic associated with the proposal, and detailed reviews of local receivers as required.	During Construction	Noise and Vibration Management Sub-plan (NVMSP)
NV-2	Minimising the potential for construction vibration (structural) impacts	Where vibration levels are predicted to exceed the screening criteria, a more detailed assessment of the structure and vibration monitoring would be carried out in accordance with the Inland Rail NSW Construction Noise and Vibration Management Framework, to ensure vibration levels remain below appropriate limits for that structure.	During Construction	NVMSP
NV-3	Blasting management	A blast management strategy would be prepared in accordance with relevant guidelines, and in consultation with the NSW Environment Protection Authority, and would include: - sequencing and review of trial blasting to inform blasting - regularity of blasting - intensity of blasting - periods of relief - blasting program. Traffic management during drilling and blasting which impact on TfNSW roads shall be carried out in accordance with AS 1742: Manual of Uniform Traffic Control Devices Monitoring of airblast and ground vibration caused by blasting would be conducted in line with AS 2187.2:2006: Storage and use Part 2: Explosives (Standards Australia, 2006). Monitoring would be conducted at	Prior to blasting	Blast Management Strategy

Ref	Issue	Measure / Requirement	Timing	Relevant Document
		the nearest sensitive receiver and non-sensitive receiver (if closer to the blasting zone than the closest sensitive receiver) and assessed in accordance with the criteria outlined in this document.		
NV-4	Noise and vibration impacts during operation	Feasible and reasonable mitigation measures would be identified where exceedances of operational noise and vibration criteria are confirmed. Measures would be identified in accordance with the outcome of the operational noise and vibration review and the Inland Rail Noise and Vibration Strategy. Where at-property noise treatments are identified as the preferred mitigation option, these would be developed in consultation with individual property owners.	Prior to Operation	Operational Noise and Vibration Review - Rail (ONVR - Rail) Operational Noise and Vibration Review – Road (ONVR - Road)
NV-5	Structural vibration impacts	If the operational noise and vibration review indicates that vibration levels are predicted to exceed the screening criteria at sensitive receivers, a more detailed assessment of the structure would be carried out. For any heritage items with the potential to be affected, the detailed assessment would determine any specific sensitivities, in consultation with a heritage specialist, to ensure risks are adequately managed. If a heritage structure is found to be structurally unsound following inspection, a more conservative cosmetic damage objective (e.g. 2.5 mm/s peak component particle velocity for long-term vibration) would be considered.	Prior to Operation	ONVR – Rail ONVR - Road
SE-1	Avoiding and minimising social and economic impacts	ARTC and the construction contractor would collaborate on the implementation of the Social Impact Management Plan (SIMP) for the proposal during the detailed design/pre-construction phase. The SIMP would be developed using the recommendations provided in the Social Impact Assessment (SIA) for the proposal and address, but not be limited to, workforce management; industry participation; housing and accommodation; community health and wellbeing; and appropriate community and stakeholder engagement.	1 month before the receipt of CEMPs, CEMP sub-plans and monitoring programs	Social Impact Management Plan (SIMP)

Ref	Issue	Measure / Requirement	Timing	Relevant Document
SE-2	Social impacts, communication and engagement	ARTC would continue to manage and deliver program-wide community and stakeholder engagement, including Aboriginal communities, RAPs and LALCs as relevant, for Inland Rail in accordance with the Inland Rail Communications and Engagement Strategy. A proposal-specific communication management plan would be developed, in accordance with the Inland Rail Communications and Engagement Strategy, and implemented prior to and during construction, to ensure that: - the key stakeholders, including directly impacted landowners are provided opportunities for input to the design and construction, planning, where appropriate - enquiries and complaints are managed, and a timely response is provided for concerns raised, and - there is a procedure and mechanism in place to resolve and mediate disputes in relation to construction and impact to property infrastructure The communication management plan would define the requirements for the complaints management system to be implemented during construction.	Prior to works	CCS
LP-1	Land use and property impacts, including severance and other impacts on operations	The design and construction planning would continue to be refined to minimise potential impacts on land uses and properties as far as reasonably practicable. This would include measures to manage severance impacts where practicable, including appropriate access solutions.	During Design During Construction	CCS TTAMSP
LP-2	Acquisition and property impacts	All property acquisitions/adjustments would be undertaken in consultation with landowners and, where relevant, in accordance with the requirements of the Land Acquisition (Just Terms Compensation) Act 1991 (NSW) (Land Acquisition Act). In line with the Land Acquisition Act, ARTC's preference is for acquisition by agreement where practicable	At all times	CCS
LP-3	Acquisition and property impacts	Individual property agreements plans would be developed in consultation with landowners/occupants, with respect to the management of construction on or immediately adjacent to private properties, where appropriate. These would detail any required adjustments to fencing, access, farm infrastructure, and relocation of any impacted structures as required.	Prior to works in that property	Individual Property Management Plans CCS
LP-4	Impacts of construction on private properties	Property owners and occupants would be consulted in accordance with the project-specific communication management plan to ensure that owners/occupants are informed about: - the timing and scope of activities in their area	Prior to works in that property	Individual Property Management Plans CCS

Ref	Issue	Measure / Requirement	Timing	Relevant Document
		- any potential property impacts/changes, particularly in relation to potential impacts on access, services, or farm operational arrangements - activities that have the potential to impact on livestock		
LP-5	Impacts of construction on private properties	Feasible and reasonable property-specific measures would be identified during detailed design in consultation with landholders landowners. These would be implemented during construction where construction is located on or immediately adjacent to private properties and has the potential to affect farm operational arrangements. The measures would include, as appropriate: - arrangements in terms of works timing and practices - any required adjustments to fencing - access, and farm infrastructure - relocation of any impacted structures.	During Design During Construction	Individual Property Management Plans CCS
LP-6	Maintaining permanent access to properties	Where any legal access to a property is permanently affected and a property has no other legal means of access, alternative access to and from a public road would be provided to an equivalent standard, where feasible and practicable. Where an alternative access is not feasible or practicable, and a property is left with no access to a public road, negotiations would be undertaken with the relevant landowner for acquisition of the property	During Design During Construction	Individual Property Management Plans CCS
LP-7	Internal access arrangements	ARTC would consult with adjoining landowners regarding temporary construction impacts on viability and productivity. This may would include consideration of temporary farm infrastructure to maintain farm management practices, and/or modification of construction activities and footprint.	At all times	Individual Property Management Plans CCS
LP-8	Impacts on livestock	Stock fencing must be in accordance with the Inland Rail fencing standards and be constructed prior to the removal of existing fencing or any works being carried out on the subject land, unless otherwise agreed with the landowner. Where fencing is required, the relevant landowner will select the type of fencing in a like-for-like fashion from ARTC's standard fence and gate types, to suit the farm operations. Internal fencing matters will be considered, as appropriate, during the land acquisition process	During Design During Construction	Individual Property Management Plans CCS
LP-9	Minimising impacts on routes used for stock movement	Local Land Services (LLS) would be consulted during detailed design to understand how impacts on routes used for stock movement can be minimised and managed during construction and operation. Alternative access	During Design	CCS

Ref	Issue	Measure / Requirement	Timing	Relevant Document
		arrangements would be made, as required, subject to maintaining rail safety.		
LV-1	Minimising the potential for visual and landscape impacts	Detailed design and construction planning would seek to minimise the construction and operation footprints and avoid impacts on mature native vegetation as far as reasonably practicable.	During Design	BMSP
LV-2	Minimising the potential for visual and landscape impacts	An urban design and landscape plan would be prepared to provide a consistent approach to design and landscaping. The urban design and landscape plan would include: - vegetation screening in strategic locations to visually mitigate impacts from new structures and rail operations, including around bridges and locations where the proposal would be visible from sensitive receivers, where the presence of screening does not impact safe rail operations - appropriate species that respond to the existing landscape character setting and environmental conditions - design guidelines to minimise the visual impacts of bridges, with consideration of the existing landscape and visual context and with regard to Bridge aesthetics: design guidelines to improve the appearance of bridges in NSW (RMS, 2012). Detailed design would be undertaken in accordance with the urban design objectives developed for the design, and the urban design and landscape framework and plan.	During Design	Urban Design and Landscape Plan (UDLP)
LV-3	Batter slopes in contrast with the existing landform	Batter slopes would be integrated into the surrounding landscape as far as practicable. Appropriate slope stabilisation would be integrated into batter design to ensure successful rehabilitation and stabilisation.	During Design	UDLP
SC-1	Structural integrity	Detailed design would include engineering measures to minimise operational risks from dispersive, saline and/or low strength soils, particularly through foundation and batter design.	During Design	SWMSP Design reports and drawings
SC-2	Contamination	Hazardous materials surveys would be undertaken during detailed design for all proposed demolition activities.	Prior to demolition	Contaminated Land and Hazardous Materials Management Plan (CLHMMP)

Ref	Issue	Measure / Requirement	Timing	Relevant Document
SC-3	Contamination (waste)	Any hazardous or dangerous waste (e.g. asbestos, chemicals, oils) would be correctly stored and managed onsite, and if necessary, disposed of by a licensed contractor or facility and in accordance with the relevant state occupation health and safety legislative, and regulatory obligations. This includes wastes generated as a result of demolition.	At all times	CLHMMP
SC-4	Contamination (investigations)	Site investigations would be undertaken by a suitably qualified and experience consultant as defined in Schedule B9 of the National Environment Protection (Assessment of Site Contamination) Measure 1999 (NEPC, 2013) to assess exposure risks to site workers and other receptors as a result of disturbances to the following areas considered to be at a medium-to-low risk of being contaminated: - AEC 2—disused broken machinery and parts, potential asbestos containing material - AEC 3—four grain silos and machinery associated with these silos - including tractors and multi-feeders within a private property. - AEC 5—a locked chemical storage shed and drums containing pesticides - AEC 6—fox baits - AEC 7—stockpile of waste including wood and rubble - AEC 8— the Main South Line (railway line) - AEC 9— crossing the Main South Line (railway line) - AEC 10—The Forbes Line (railway line north of Stockinbingal). The results of the site investigations would be assessed against the criteria contained within the National Environment Protection (Assessment of Site Contamination) Measure 1999 to determine the need for any remediation.	Prior to works in those AEC	CLHMMP
SC-5	Erosion and sedimentation control	Where practical, vegetation clearing and ground-disturbing works should be staged sequentially/across the project to minimise areas exposed to erosion and sediment risk.	At all times	SWMSP
WM-1	Waste management	Detailed design would include measures to minimise spoil generation. This would include a focus on optimising the design to minimise spoil volumes and the reuse of material onsite.	During Design	SWMSP Waste Management Plan (WMP)
CC-1	Climate change risk management	The climate adaptation measures identified for the proposal would be reviewed, and the final measures would be incorporated in design and implemented during construction and operation, as far as practicable.	During Design	Sustainability Management Plan (SuMP)

Ref	Issue	Measure / Requirement	Timing	Relevant Document
SU-1	Sustainable procurement	Procurement would be undertaken in accordance with the Inland Rail Sustainable Procurement Policy (ARTC, 2018c), the Sustainable Procurement Guide (Commonwealth of Australia, 2021) and the NSW Government Resource Efficiency Policy (OEH, 2014b).	During Design	SuMP
SU-2	Climate change risk management	Sustainability initiatives, particularly in relation to energy consumption and savings throughout the project lifecycle, must be incorporated into detailed design.	During Design	SuMP
HS-1	Public safety	A hazard analysis would be undertaken during detailed design to identify risks to public safety from the proposal and how these can be further mitigated through safety in design.	During Design	Safety Management Plan
HS-2	Utilities	Utility and service providers would continue to be consulted during detailed design to identify possible interactions and to develop procedures to minimise the potential for service interruptions and impacts on existing land uses. Any relocations or requirements for access, diversion, protection and/or support would be in place prior to construction.	During Design	Safety Management Plan
HS-3	Bushfire	Detailed design and construction planning would maintain appropriate access during construction and operation, ensuring local roads allow emergency access, first-response firefighting, access to water supply for firefighting purposes and safe evacuation routes.	During Design During Construction	Individual Property Management Plans TTAMP Bushfire Management Plan
HS-4	Flood and emergency response	A flood and emergency response plan would be prepared and implemented as part of the CEMP. The plan would include measures, processes and responsibilities to minimise the potential impacts of construction activities on flood behaviour and bushfire risk as far as practicable. It would also outline measures to manage emergency responses during construction.	Prior to Consutruction	Flood and Emergency Response Plan
CR-1	Cumulative impacts	Coordination and consultation would occur with the proponents of any current development proposals, with potential for cumulative impacts at the appropriate project stages. If consultation with these proponents during detailed design confirms the likelihood of a cumulative impact, ongoing consultation and coordination would include: - provision of regular updates on construction planning for the proposal - identification of key potential conflict points with other construction projects - developing mitigation strategies in order to manage conflicts. Depending on the nature of the conflict, this could involve coordination of traffic	At all times	CEMP and Sub-plans

Ref	Issue	Measure / Requirement	Timing	Relevant Document
		management arrangements between projects, where reasonable and feasible		
BD-7	Managing the potential for biodiversity impacts during construction	A biodiversity management plan would be prepared prior to construction and implemented as part of the Construction Environmental Management Plan (CEMP). The plan would include measures to manage biodiversity and minimise the potential for impacts during construction. The plan would be prepared in accordance with relevant legislation, guidelines and standards. The plan would include, but not be limited to: - locations and requirements for pre-clearing surveys, including terrestrial and aquatic habitats - establishing protocols for the staged clearing of vegetation and safe tree felling and log removal to reduce the risk of fauna mortality - measures to avoid and minimise clearing of hollow-bearing trees and paddock trees where practicable - measures relating to the provision and management of nest boxes, including reuse of hollows and monitoring protocols - animal handling protocols, including relocation and emergency care - an unexpected finds protocol - measures to manage biosecurity risks (including livestock pests/ diseases such as Japanese encephalitis and foot & mouth disease) in accordance with the Biosecurity Act 2015 (CtH) (NSW) - measures to manage high-threat weeds - measures to reduce the risk of terrestrial and aquatic fauna mortality/injury - measures relating to the stripping, stockpiling and management of topsoil where it contains seedbank or weed material.	Prior to Construction	BMSP
BD-8	Rehabilitation of vegetation and habitats subject to temporary disturbance	A rehabilitation strategy would be prepared to guide rehabilitation planning, implementation, monitoring and maintenance of disturbed areas once construction is complete. The strategy would include clear objectives for seed collection and rehabilitation of native vegetation in temporary disturbances areas and in riparian areas.	Prior to rehabilitation	BMSP Rehabilitation Strategy
BD-8	Managing the potential for biodiversity (aquatic) impacts during construction	Scheduling of construction activities to minimise time of works in or adjacent to drainage lines and waterfront land (watercourse bed and land within 40 m of the highest bank of the watercourse (DPI, 2012a), particularly during periods of flow.	During Construction	BMSP SWMSP
BD-10	Managing the potential for biodiversity (aquatic) impacts during construction	Where it is not practicable to work in the dry, a sediment or silt curtain attached to the same sides of the bank and around the works area would be installed for erosion	During Construction	BMSP SWMSP

Ref	Issue	Measure / Requirement	Timing	Relevant Document
		and sediment control, and to maintain fish passage.		
BD-14	Little Eagle nest and breeding habitat	Prior to construction commencing in the vicinity of CH 740, schedule construction activities to commence between January to July (outside the breeding season of the Little Eagle). Where this is not possible, investigate the potential options for relocation of an unoccupied nest to a suitable location determined by an appropriately qualified ecologist, with relocation to be complete before July.	Prior to construction commencing in the vicinity of CH 740	BMSP
ABD-24	Light disturbance	Lighting of the accommodation camp would be designed in accordance with best practice design to limit impacts on wildlife and minimise light spill to woodland area. including AS/NZS 4282:2019 (Outdoor Lighting Obtrusive Effects). This would include the following measures: - orient lighting away from native vegetation patches where possible and focus light on intended area (avoid light spill into vegetated areas) - where light impacts to vegetation cannot be avoided, use lowest intensity lighting appropriate for the task or consider modifying spectral composition (i.e. reduced or filtered light of blue, violet or ultraviolet wavelengths) to reduce impact.	Prior to construction of camp	CEMP and sub-plans Temporary Accommodation Facility Management Plan (TWAFMP)
T-5	T-4 General impacts of construction activities on traffic, transport, access, pedestrians and cyclists	A traffic, transport and access management plan would be prepared and implemented as part of the CEMP. The plan would include measures, processes and responsibilities to minimise the potential for impacts on the community and the operation of the surrounding road and transport environment during construction. The plan would be developed in consultation with local councils, TfNSW, emergency services and public transport/bus operators. It would include, as appropriate, additional reasonable and feasible measures identified as an outcome of consultation undertaken under the Inland Rail Communications and Engagement Strategy.	Prior to Construction	TTAMSP
T-6	General impacts of construction activities on traffic flow	Traffic control would be engaged to maintain vehicle flow and safe access where required on construction and diversion routes and at construction accesses. This would include at the Hibernia Street and Dudauman Street	At all times	TTAMSP

Ref	Issue	Measure / Requirement	Timing	Relevant Document
		intersection, to prevent queuing across the existing rail line		
T-7	Emergency vehicle access	Emergency vehicle access routes that may be impacted by the proposal would be identified and appropriate control measures would be implemented, in consultation with the relevant emergency services providers.	At all times	TTAMSP Flood and Emergency Response Plan Bushfire Management Plan
T-8	Heavy vehicles damaging local roads	A dilapidation survey would be undertaken of the made public roads within the proposed haulage routes and diversion roads at the commencement of construction and provided to the relevant road authority. Upgrades to pavements on construction routes would be undertaken prior to construction, as deemed to be required. Pavement monitoring would be carried out during works. Rectification measures would be implemented as needed during and/or following completion of construction to address any damage caused by construction.	Before heavy vehicle use on local roads	TTAMSP Road Dilapidation Report
T-9	Impact on livestock highways	Local Land Services would be notified of increased heavy vehicle movements along livestock highways during the construction phase as well as periods of changed traffic operations. Construction staff would be informed of the location of the livestock highways.	During Construction	CCS
AT-1	Road safety	As part of the traffic, transport and access management plan, the arrival and departure of the workforce to the accommodation camp would be managed to minimise peaks in congestion and reduce impacts on the road network, particularly at nearby intersections.	At all times	TTAMSP TWAFMP
AT-2	Road safety	The 80 km/hr speed limit associated with the level crossing on Grogan Road would be temporarily extended south to incorporate both access points to the accommodation camp, during both establishment and operation. The speed limit would be clearly signposted at the accommodation camp access points and on Grogan Road.	During establishment and operation of camp	TTAMSP TWAFMP
AT-3	Site access	The design of the two-way access points to the accommodation camp would be undertaken with regard to relevant standards and guidelines, and in	During Design	TTAMSP TWAFMP

Ref	Issue	Measure / Requirement	Timing	Relevant Document
		consultation with the Cootamundra-Gundagai Regional Council.		
AT-4	Transport of construction workers	During operation of the accommodation camp, workers would be transported between the construction work sites and the accommodation camp via shuttle buses to help minimise potential traffic impacts on the local roads.	During Construction	TTAMSP TWAFMP
AT-5	Road safety	Swept path analysis would be undertaken for access from Grogan Road with consideration of bus and service vehicle movements during detailed design.	During Design During Construction	TTAMSP
AT-6	Road safety	Route analysis, including an assessment of clearance heights, bridge weight limits and swept path analysis would be undertaken for Oversize Overmass (OSOM) load-carrying vehicles used in the establishment of the accommodation camp.	During Design During Construction	TTAMSP
HF-5	Flood impacts	Construction planning and the layout of construction work sites and compounds would be undertaken with consideration of overland flow paths and flood risk, avoiding flood prone land and flood events where practicable. Prior to construction, a flood warning system will be established in for the Dudauman Creek catchment, upstream of construction areas for use during construction, with reference to Bureau of Meteorology forecasts. Following development of the construction methodology, critical stages of the works would be identified and tested in the flood model to identify potential construction phase flooding impacts. The tests should simulate the following in the model for a number of construction phase scenarios as required: - key stages of temporary embankment opening during demolition/reconstruction that could pass additional flow downstream - location and level of long term construction facilities (such as compounds, access tracks and stockpiles) that could obstruct and divert flows - location and level of temporary works in waterways and overland flow paths during bridge and culvert construction that could obstruct and divert flows. The construction phase flood modelling should be iterated through sufficient scenarios to inform planning of the works such that construction phase flood impacts are identified and managed accordingly. The outcomes of the modelling should be used to inform the construction phase flood emergency response plan (mitigation	During Design During Construction	Flood and Emergency Response Plan

Ref	Issue	Measure / Requirement	Timing	Relevant Document
		measure HS-4). The flood warning system outputs should be used to set trigger levels and associated actions in the flood emergency response plan.		
HF-6	Sedimentation and erosion management	A soil and water management plan would be prepared and implemented as part of the CEMP. The plan would include measures, processes and responsibilities to minimise the potential for soil and water impacts (including impacts to groundwater and geomorphology) during construction.	Prior to Construction	SWMSP
HF-7	Dewatering of farm dams that require relocation and/or decommissioning	A dam dewatering protocol would be developed as part of the soil and water management plan. It would consider: - options for reuse of water in the dam - licensing and approval requirements, where relevant - the quality and quantity of the water to be released, where relevant - strategies to minimise impacts on native, threatened or protected species - strategies to minimise spread of nuisance flora and fauna species.	Prior to Construction	SWMSP
AHF-1	Hardstand areas	Minimising hard stand areas in the vicinity of camp buildings to minimise increases in runoff.	During Design During Construction	SWMSP
AHF-2	Site drainage	Site drainage of the accommodation camp would be installed in accordance with the recommendations in Managing Urban Stormwater: Soils and construction - Volume 1 (Landcom, 2004).	During Design During Construction	SWMSP
AHF-3	Stormwater management	Stormwater drainage infrastructure would be included under proposed access tracks and roads to maintain existing local overland flows to the farm dam to the north of the accommodation camp site.	During Design During Construction	SWMSP TWAFMP Design drawings and reports
AHF-4	Flood management	A stormwater detention basin would be constructed at the accommodation camp (indicative location would be in the northern portion of the lot) to capture stormwater runoff from the car park during the 10% AEP flood event and will be designed in accordance with the Soil and Water Management Plan (refer to WQ- 3).	Prior to construction of camp	SWMSP TWAFMP Design drawings and reports
AHF-5	Waste management	Accommodation camp wastewater would be collected and removed off-site for treatment and disposal at a licenced wastewater treatment facility.	During operation of camp	SWMSP TWAFMP

Ref	Issue	Measure / Requirement	Timing	Relevant Document
AHF-6	Reuse of rainwater	Capture of all rainwater from the roofs of camp buildings across the accommodation camp site for suitable reuse within the site.	During operation of camp	SWMSP TWAFMP
WQ-3	Sedimentation and erosion management	A soil and water management plan would be prepared and implemented as part of the CEMP. The plan would include measures, processes and responsibilities to minimise the potential for soil and water impacts (including impacts to groundwater and geomorphology) during construction.	Prior to Construction	SWMSP
WQ-4	Dewatering of farm dams that require relocation and/or decommissioning	A dam dewatering protocol would be developed as part of the soil and water management plan. It would consider: - options for reuse of water in the dam - licensing and approval requirements, where relevant - the quality and quantity of the water to be released, where relevant - strategies to minimise impacts on native, threatened or protected species - strategies to minimise spread of nuisance flora and fauna species.	Prior to Construction	SWMSP
WQ-5	Disposal of wastewater (concrete batching plants)	All wastewater from concrete batching plants would be captured and would either be disposed of to an appropriately licensed facility or treated prior to discharge to surface water bodies. All discharge water would comply with the WQOs and the relevant EPL requirements: - measures to prevent or minimise mud and dirt being tracked onto public roadways by trucks and any equipment leaving the site - requirements for training, inspections, corrective actions, notification and classification of environmental incidents, record keeping, monitoring and performance objectives for handover on completion of construction - any other requirements necessary to comply with conditions of approval subsequent approvals or regulatory requirements - erosion and sediment control plans and Soil and Water Management Plan (SWMP) will be signed off by a Suitably Qualified Person (e.g. Certified Professional in Erosion and Sediment Control (CPESC) in accordance with regulatory requirements.	During Construction	SWMSP

Ref	Issue	Measure / Requirement	Timing	Relevant Document
GW-4	Groundwater management	A groundwater mitigation and management plan (GWMMP) would be prepared as part of the CEMP. The GWMMP would comply with the proposal conditions of approval and be implemented to monitor the effectiveness of mitigation and management measures applied during the construction phase of the proposal. The GWMMP would at a minimum: - provide details of the groundwater monitoring network, frequency of monitoring, and test parameters - be based on baseline studies developed for the proposal and establish baseline monitoring reports - contain procedures for the documentation and reporting of results - include requirements for training, inspections, corrective actions, notification and classification of environmental incidents, record keeping, monitoring and performance objectives for handover on completion of construction.	Prior to Construction	GMMSP
GW-5	Monitoring groundwater drawdown and quality	A groundwater monitoring program would be developed and implemented as part of the GWMMP to monitor potential groundwater impacts. The program would define the following: - monitoring parameters - monitoring locations - frequency and duration of monitoring. The monitoring program would include baseline monitoring to determine the water quality of groundwater from the proposed bore field bores.	Prior to Construction	GMMSP
GW-6	Unforeseen water table penetration by earthworks	If excavations intersect the water table, potential impacts would be assessed by a hydrogeologist and adaptive management measures implemented as required.	Prior to Construction During Construction	GMMSP

Ref	Issue	Measure / Requirement	Timing	Relevant Document
AH-9	Protecting Aboriginal heritage and minimising impacts during construction	An Aboriginal cultural heritage management plan would be prepared prior to construction and implemented as part of the CEMP. The plan would include measures to minimise the potential for impacts and manage Aboriginal heritage, including: - a salvage methodology (mitigation measure AH-2) - an unexpected finds procedure (mitigation measure AH-11) - plans and installation procedures for fencing and protective coverings - induction package for construction workers and supervisors - erosion and sediment controls in accordance with Managing Urban Stormwater: Soils and construction – Volume 1 (Landcom, 2004) to minimise the potential for erosion impacts to Aboriginal sites located close to watercourses/drainage lines - investigation of the anthropogenic nature of scarred trees within the project area by a specialist in Aboriginal cultural heritage - measures to manage the potential for impacts to potential Aboriginal heritage items (including burial sites) located in sensitive landscapes (such as alluvium landscapes) - measures to protect sites close to the proposal site from inadvertent impacts - outcomes of further investigations (mitigation measures AH-3 and AH-5) - a repatriation process for collected artefacts The plan would be prepared in consultation with registered Aboriginal parties and the NSW Department of Planning and Environment.	1 month prior to construction	ACSES HMSP ACVP
AH-10	Protecting Aboriginal heritage and minimising impacts during construction	A requirement for cultural heritage awareness training would be included in the Aboriginal cultural heritage management plan. Cultural heritage awareness training would be provided by an Aboriginal representative at the commencement of substantial works for the project.	1 month prior to construction During Construction	ACSES HMSP ACVP
AH-11	Unexpected finds	An unexpected finds procedure would be developed and included in the Aboriginal cultural heritage management plan to provide a consistent method for managing any unexpected Aboriginal heritage items discovered during construction, including potential heritage items or objects and a flow chart of the procedure on the findings of skeletal remains.	1 month prior to construction During Construction	ACSES HMSP ACVP

Ref	Issue	Measure / Requirement	Timing	Relevant Document
AH-12	Update AHIMS records	AHIMS records would be updated for AHIMS Register locations no longer considered to be sites: - Scarred Tree 50-5-0117 (AHIMS 50-5-0117) - Scarred Tree 50-5-0120 (AHIMS 50-5-0120) - Scarred Tree 50-5-0121 (AHIMS 50-5-0121) - Zone 1—low density scatter (AHIMS 50-5-0280) (part) - PAD Zone 7 North (AHIMS 50-5-0281) - PAD Zone 7 South (AHIMS 50-5-0288) - PAD Zone 8 (AHIMS 50-5-0282) - PAD Zone 11 (AHIMS 50-2-0056) - PAD Zone 11 East (AHIMS 50-2-0057).	Following confirmation AHIMS sites no longer considered sites	ACSES HMSP ACVP
AH-13	Aboriginal cultural values plan	An Aboriginal cultural values plan would be prepared in consultation with Aboriginal parties prior to construction and implemented as part of the CEMP. The plan would consider the Aboriginal Cultural Heritage Management Plan and identify: - the traditional Aboriginal use of the landscape in the area surrounding the proposal - the archaeological and contemporaneous expression of that use - the intangible cultural values of the landscape - aboriginal cultural heritage artefacts and scarred trees identified in the project area surrounding the proposal and their cultural value - stories for interpretation drawn from the key thematic areas, identify audiences, locations and options to provide this interpretation - how the findings will be represented by the project, for example in design finishes, art, landscaping and cultural food sources.	1 month prior to construction	ACSES HMSP ACVP
NAH-3	Avoiding impacts during construction	The CEMP would define a requirement for non-Aboriginal historical heritage awareness training for site workers prior to commencement of construction works. The awareness training would promote an understanding of heritage items that may be impacted during the works, and the requirements of the unexpected finds procedure.	1 month prior to construction During Construction	HMSP
NAH-4	Unexpected finds including human skeletal remains	An unexpected finds procedure would be developed as part of the CEMP to provide a consistent method for managing any unexpected heritage or archaeological items and unexpected human skeletal remains. Non-Aboriginal awareness training (mitigation measure NAH-3) is to include a flow chart of the procedure on the findings of skeletal remains.	1 month prior to construction During Construction	HMSP

Ref	Issue	Measure / Requirement	Timing	Relevant Document
NAH-5	Avoiding impacts during construction	The existing fencing and signage around Stockinbingal Railway Station would be maintained to avoid impacts during construction. The Billabong Creek rail underbridge would be fenced and marked on site plans within the CEMP as an area to be avoided during construction.	1 month prior to construction During Construction	HMSP
NV-6	Managing the potential for noise and vibration impacts during construction	A construction noise and vibration management plan would be prepared and implemented in accordance with the Inland Rail NSW Construction Noise and Vibration Management Framework. The plan would include measures, processes and responsibilities to manage and monitor noise and vibration, and minimise the potential for impacts during construction.	Prior to Construction	NVMSP
NV-7	Impacts of out-of-hours work	An out-of-hours work (OOHW) protocol would be developed to define the process for considering, approving and managing OOHW, including implementation of feasible and reasonable measures and communication requirements to separately address the following situations: - works that routinely occur within the construction hours generally proposed for the proposal but outside Interim Construction Noise Guideline standard hours - works (such as evening and night works during rail possessions) that would occur outside the construction hours proposed for the proposal Measures would be aimed at pro-active communication and engagement with potentially affected receivers, provision of respite periods and/or alternative accommodation for defined exceedance levels. All work outside the proposal construction hours would be undertaken in accordance with the Inland Rail NSW Construction Noise and Vibration Management Framework and in accordance with the OOHW protocol. The protocol would provide guidance for the preparation of OOHW plans for each construction work location and for key works, and guidance around mitigating impacts to receivers at Stockinbingal. OOHW plans would be prepared in consultation with key stakeholders (including the NSW Environment Protection Authority) and the community and incorporated into the construction noise and vibration management plan (mitigation measure NV-6).	Prior to OOHW	NVMSP Out-of-hours work protocol (OOHWP)

Ref	Issue	Measure / Requirement	Timing	Relevant Document
NV-8	Minimising the potential for construction vibration (structural) impacts	If vibration-generating activities are conducted within minimum working distances of a sensitive receiver, attended vibration measurements would be undertaken at the commencement of vibration-generating activities to confirm that structural vibration limits are within the acceptable range. Where vibration levels are found to be unacceptable, alternative work methods would be implemented so the vibration impacts are reduced to acceptable levels.	During Construction	NVMSP
NV-9	Minimising the potential for construction vibration (structural) impacts	Dilapidation surveys: Property condition surveys would be completed prior to any vibration-intensive work being carried out at or within the minimum distances that may cause cosmetic damage. Where a receiver is determined to be structurally unsound, a reassessment of the minimum working distances would be required. Minimum working distances would be confirmed prior to carrying out any vibration intensive work onsite.	Prior to Works	Condition Survey Report CCS NVMSP
NV-10	Impacts on heritage items as a result of construction vibration	Prior to the commencement of vibration-intensive works within the minimum working distances for cosmetic damage for heritage items, the potential for damage to the item would be assessed. Where there is potential for damage, alternative methods that generate less vibration would be investigated and substituted where practicable. Where residual cosmetic damage risks remain, condition surveys would be carried out and vibration monitoring with real-time notification of exceedance would occur during the activity. Site activities would be modified, where practicable, to avoid exceeding the cosmetic damage criteria. Any identified vibration-related damage to the items would be rectified.	Prior to Works	Condition Survey Report CCS NVMSP HMSP
NV-11	Minimising potential for impacts of blasting	Blasting would be undertaken during the recommended standard hours for blasting. Management measures defined by the blasting management strategy would be implemented.	At all times	Blast Management Strategy NVMSP
SE-3	Management of social and economic impacts	ARTC and the construction contractor would collaborate on the implementation of the SIMP for the proposal during the construction phase. The SIMP would be developed using the recommendations provided in the SIA for the proposal and address, but not be limited to, workforce management; industry participation; housing and accommodation; community health and wellbeing; safety; and appropriate community and stakeholder engagement. The plan would be developed in consultation with local councils and service	During Construction	SIMP

Ref	Issue	Measure / Requirement	Timing	Relevant Document
		providers, including local and regional health and emergency services providers.		
ASE-1	Workforce anti-social behaviour within local towns	Anti-social behaviour within the accommodation camp would be mitigated through a temporary workforce accommodation management plan which includes a code of conduct for workers, and the adequate provision of: - noise curfew and security requirements - enforcement of drug and alcohol policies - installation of CCTVs - workforce training and education (regarding community etiquette and anti-social behaviour).	During operation of the camp	SIMP TWAFMP SEMP
ASE-2	Increased demand on local social and health services, and potential impacts on capacity	Local physical and mental health care service providers would be consulted prior to construction of the accommodation camp.	During operation of the camp	SIMP TWAFMP SEMP
ASE-3	Increased demand on local social and health services, and potential impacts on capacity	The construction contractor would develop appropriate processes and measures to manage potential increased demand on health and emergency services, including: - the camp would be designed to incorporate recreation facilities within the accommodation camp - workforce training and education would be provided to construction workers regarding mental health, wellbeing, and potential risks associated with fly-in-fly- out and drive-in-drive-out work.	During operation of the camp	SIMP TWAFMP SEMP
ASE-4	Increased demand on local social and health services, and potential impacts on capacity	Construction workers would be encouraged to access Cootamundra-based services when possible.	During operation of the camp	SIMP TWAFMP SEMP
LP-10	Biosecurity	The biodiversity management plan included in the CEMP (mitigation measure BD- 7) would include measures to minimise the potential for biosecurity risks during construction, in accordance with the Biosecurity Act 2015 (NSW). The biosecurity management plan would be developed with reference to the Riverina Regional Strategic Weed Management Plan 2017-2022 (LLS, 2017) and in consultation with LLS and DPI.	Prior to Consutruction	BMSP Biosecurity Management Plan

Ref	Issue	Measure / Requirement	Timing	Relevant Document
LP-11	Access to properties	Access to individual residences, services and businesses, and for livestock across the rail corridor, would be maintained during construction where reasonably practicable. The traffic, transport and access management plan included in the CEMP (mitigation measure T-5) would include measures in relation to property access during construction. Where alternative access arrangements need to be made, these would be developed in consultation with affected property owners/occupants and LLS for travelling stock reserves.	Prior to Construction	TTAMSP Individual Property Management Plans
LP-12	Water supplies for farm operations	Where potential adverse impacts, resulting from the proposal to water supply for farm operations are identified, ARTC will consult with the affected landowner on the management measures that will be implemented to mitigate the impacts. Measures could include - Replacement or reinstated farm water pipelines, dams and drainage channels, to ensure continuity of stock and domestic water supplies, prior to removal of existing impacted infrastructure.	During Construction	Individual Property Management Plans
LP-13	Bushfire risk	The flood and emergency response plan (mitigation measure HS-4) would include measures to minimise the potential for bushfire risks.	Prior to Construction	Flood and Emergency Response Plan Bushfire Management Plan
LV-4	Visual impacts of construction compounds	Construction compounds would be located, as far as practicable, within cleared areas and away from sensitive receivers. Construction compounds would be designed and orientated to minimise visual impacts. This would include locating areas of low visual amenity away from sensitive receivers, and erecting boundary screening around construction compounds, where appropriate.	During design During Construction	Visual and Landscape Impact Mitigation Plan CEMP SEMP
LV-5	Landscape character and visual impacts	Rehabilitation of disturbed areas would be undertaken progressively in accordance with the rehabilitation strategy (mitigation measure BD-8 and the appendix of the landscape character and visual impact assessment for the proposal) to be undertaken during detailed design and individual property plans (where relevant).	Prior to rehabilitation	BMSP Rehabilitation Strategy Visual and Landscape Impact Mitigation Plan
LV-6	Minimising light spill	Lighting of work areas, construction compounds and work sites would be oriented to minimise glare and light spill impact on adjacent receivers.	During design During Construction	Visual and Landscape Impact Mitigation Plan CEMP TWAFMP

Ref	Issue	Measure / Requirement	Timing	Relevant Document
LV-7	Visual impacts of construction	Mitigation measures for visual impacts would be included in the CEMP, including (where relevant): - selecting laydown areas and other ancillary sites to reduce visual impacts - locating construction compounds as far from sensitive receivers as possible - use of hoarding and other visual screening methods - keeping stockpile height to a minimum in the vicinity of sensitive receivers. Any existing ground surface or vegetation that has been disturbed in order to replace any existing track would be reinstated to match the adjoining landscape surface in order to maintain the current visual scene.	Prior to Construction During Construction	Visual and Landscape Impact Mitigation Plan CEMP TWAFMP
SC-6	General soil and erosion management	A soil and water management plan (SWMP) would be prepared as part of the CEMP. The SWMP would comply with the conditions of approval and be in accordance with best practice, reflected in Managing Urban Stormwater: Soils and construction - Volume 1 (Landcom, 2004), Volume 2C Unsealed roads (DECC, 2008) and Volume 2D, Main Road Construction (DECC, 2008) (collectively known as the Blue Book). The SWMP would include: - water quality and soil/land conservation objectives for the proposal - a progressive erosion and sediment control plan that allows for staging and site- specific erosion and sediment controls at all work sites in accordance with the Blue Book. Physical controls may include sediment fences and basins; containment bunds; silt traps; turbidity barriers and diversions; dust suppression; and earth compaction around stockpiles and earthworks areas. The controls would aim to: - divert water from upslope areas around the site - reduce erosion from within the site - intercept runoff and capture sediment from site - protect watercourses, drainage lines and drain inlets down-gradient from the site. The plan would identify: - monitoring locations at discharge points and selected watercourses where works are being undertaken, monitoring parameters, and frequency and duration of monitoring.	Prior to Construction	SWMSP

Ref	Issue	Measure / Requirement	Timing	Relevant Document
SC-7	Contamination management	A contaminated land and hazardous materials management plan would be prepared and implemented as part of the CEMP. The plan would include but not be limited to: - further investigations during detailed design would be required to characterise contamination at registered or otherwise identified contaminated sites. Results would be used to further inform CEMP requirements. - a methodology to manage excavation and spoil management with known contaminated sites - capture and management of any surface runoff contaminated by exposure to the contaminated land - measures to ensure the safety of site personnel, environment and local communities during construction - procedures for incident management and managing unexpected contamination finds (an unexpected finds protocol).	Prior to Construction	CLMMSP
SC-8	Rehabilitation (local roads)	Where decommissioning or realignment of local roads is required, the CEMP would include decommissioning and rehabilitation requirements, as per relevant conditions of approval and road authority requirements. This would include measures to manage: - milling and removal of bitumen pavement - removal of any decommissioned culverts - tying and ripping of base and sub-base material - application of soil ameliorants - topsoiling and/or compost blanket - stabilisation and rehabilitation (for example planting and or seeding).	Prior to Construction	CLMMSP

Ref	Issue	Measure / Requirement	Timing	Relevant Document
WM-2	Waste Management	A waste management plan would be prepared for the proposal, including: - waste targets for the proposal - estimated waste generation (volumes and types of waste arisings) - waste mitigation and management measures for the waste types and quantities, and contingencies for any unexpected waste volumes - general protocols and performance objectives for keeping the worksite clean and tidy - processes for monitoring, documenting and reporting waste types, volumes and how these arisings compare to waste targets (e.g. description of waste streams and estimated volumes, temporary waste storage areas and disposal locations on and offsite (including stockpiles and landfilling) as well as waste disposal and National Environmental Protection Measures (NEPM) criteria for disposal sites - requirements for waste segregation (e.g. inert—including virgin excavated material, vegetation, building and demolition waste, concrete and asphalt; solid— such as food waste and litter; industrial/regulated—such as asbestos; hazardous—such as flammable liquids; liquid—such as sewage - requirements for secure temporary storage, collection frequency and disposal/recycling requirements - effluent management for construction staff amenities - procedures and reporting/documentation requirements for ensuring waste transporters and receivers are appropriately licenced according to the type of waste - requirements for training, inspections, audits, corrective actions, notification and classification of environmental incidents, record keeping, monitoring and performance objectives for handover on completion of construction - any other requirements necessary to comply with conditions of approval, subsequent approvals or regulatory requirements.	Prior to Construction	Waste Management Plan
WM-3	Waste Management	All waste generated would be classified in accordance with the Waste Classification Guidelines (EPA, 2014a) and disposed of in accordance with the relevant requirements of the Protection of the Environment Operations (Waste) Regulation 2014.	At all times	Waste Management Plan
AW-1	Waste Management	Waste collection and recycling systems of the accommodation camp would be developed to ensure safe handling of waste on site before being transported off site and disposed of at an approved or	At all times	Waste Management Plan

Ref	Issue	Measure / Requirement	Timing	Relevant Document
		licenced materials recycling or waste disposal facility.		
CC-2	Climate change risk management	Sensitivity testing would be undertaken in line with climate change scenario planning for Representative Concentration Pathway (RCP) 8.5 by reviewing implications for increases in rainfall (in accordance with the Inland Rail Climate Change Risk Assessment Framework).	During Design	SuMP
CC-3	Climate change risk management	The design would consider climate change (RCP 8.5) in modelling used to inform design of drainage and waterways, including: - application of the latest *Inland Rail Climate Change Risk Assessment Framework* (ARTC, 2021c) - application of the latest climate change guidance in *Australian Rainfall and Runoff* (Ball et al, 2019) - assessment of impacts associated with the 1% AEP, to determine the sensitivity of the design to potential changes in the rainfall intensity - where enhancement or upgrading to existing track is to be undertaken, no worsening of the existing track flood immunity would occur.	During Design	SuMP
AQ-1	General air quality management	An air quality management plan would be prepared and implemented as part of the CEMP. It would include measures to minimise the potential for air quality impacts on the local community and environment, and would address all aspects of construction, including: - spoil handling - machinery operating procedures - soil treatments - stockpile management - haulage dust suppression - monitoring	Prior to Construction	Air Quality Management Sub-Plan (AQMSP)
AQ-2	Construction activities and earthworks that may cause dust impacts	Where sensitive receptors are located within the study area (350 m from construction footprint and 50 m of the route(s) used by construction vehicles on public roads, up to 500 m from the site access points) determined for each key activity, or visible dust is generated from vehicles using unsealed access roads, road watering and/or other stabilising approaches would be implemented.	During Construction	AQMSP
AQ-3	Blasting management	Blasting will not be undertaken if the prevailing wind conditions are likely to transport dust emissions towards the nearest sensitive receptors.	During Construction	AQMSP Blast Management Strategy

Ref	Issue	Measure / Requirement	Timing	Relevant Document
AQ-4	Impacts on sensitive receivers (communications)	Where sensitive receivers are located in close proximity to construction sites, especially sites 4 and 6: - implement the Inland Rail Communications and Engagement Strategy, which would include community engagement before work commences onsite - display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary - display the head or regional office contact information.	At all times	CCS
HS-5	Physical hazards	Temporary hoardings, barriers, traffic management and signage would be removed when no longer required.	On completion of relevant works	TTAMSP
HS-6	Bushfire	The construction contractor would develop procedures to manage hot work/high fire-risk activities, including observation of local fire authorities and emergency services directives, checking extent of worksite vegetation prior to hot work, and ensuring appropriate firefighting equipment and trained personnel are available. The construction contractor procedures would comply with the ARTC Safety Management System.	At all times	Bushfire Management Plan
HS-7	Bushfire	The ARTC Engineering (Track and Civil) Code of Practice—Section 17 Right of Way: Vegetation Management (ARTC, 2013) would be implemented to minimise fire risk within the rail corridor, which includes specifications for vegetation management/fire hazard reduction within the corridor. Local fire authorities (including the Rural Fire Service) and local emergency services would be consulted to ensure appropriate operational actions are taken, such as providing feedback on the firefighting vehicles accessibility, fire prevention plans and cooperation on burning-off activities.	At all times	Bushfire Management Plan
AHR-1	Fire risk management	The construction contractor would ensure that appropriate firefighting equipment, including fire extinguishers, water carts and hoses, are available at the accommodation camp.	At all times	Bushfire Management Plan
AHR-2	Health and emergency services	The construction contractor would ensure that trained first aid personnel are available to treat minor injuries or other minor health issues.	At all times	WHS Management Plan

2.2 Definitions and Abbreviations

Definitions and abbreviations to be applied to the Construction Environmental Management Plan are listed in Table 2-6.

Table 2-6 Definitions and Abbreviations

Term / Abbreviation	Definition
ACT	John Holland's Accountable Culture Tool
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 Parks
BC Act	*Biodiversity Conservation Act 2016*
BCS	Biodiversity, Conservation and Science Division of the Environment and Heritage Group of the NSW Department of Climate Change, Energy, the Environment and Water
BMSP	Biosecurity Management Sub-plan required under CoA Condition C25
CBMP	Construction Biodiversity Management Sub-Plan required under CoA Condition C20
CCS	Community Communication Strategy
CEMP	Construction Environmental Management Plan as defined in Conditions C12 and C13.
CMP	Construction monitoring Program
CNVMP	Construction Noise and Vibration Management Sub-plan required under CoA Condition C19
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
Consultation	To provide information and actively engage with and obtain and consider feedback from stakeholders during development of post approval documents. How the feedback has been considered and whether any changes have been made in response to this feedback is then documented and communicated back to stakeholders. Consultation should not be limited to one-way notification about the project.
CSWMP	Construction Soil and Water Management Sub-plan required under CoA Condition C22
CNVMP	Construction Noise and Vibration Management Sub-Plan required under CoA Condition C19
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.
CTTAMP	Traffic, Transport and Access Management Sub Plan required under Condition CoA C21
D&C	Design and Construct

Term / Abbreviation	Definition
DEECCW	NSW Department of Climate Change, Energy, the Environment and Water
DPHI	Department of Planning, Housing and Infrastructure
DPI Agriculture	NSW Department of Primary Industry – Agriculture
Environmental Assessment Documentation	• Inland Rail – Illabo to Stockinbingal Environmental Impact Statement (ARTC 2022) • Illabo to Stockinbingal Project Response to Submissions (ARTC 2023) • Response to Submissions – Appendix E - Biodiversity Development Assessment Report version 12 (IRDJV, June 2024) • I2S – Mitigation Measures (Inland Rail, April 2024) • Illabo to Stockinbingal (SSI-9604) Additional and Appropriate Measures for Box Gum Woodland Impacts (Inland Rail, June 2024) • Technical and Approvals Consultancy Services: Illabo to Stockinbingal – Box Gum Woodland Gum Flat Rehabilitation Opportunity (IRDJV, June 2024)
EID	Environment in Design
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
EMS	Environmental Management System
EMIS	Environmental Management Information System
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
ESCPs	Erosion and Sediment Control Plans
ESD	Ecologically Sustainable Development
FEMP	Flood Emergency Management Sub-plan required under CoA Condition C24
GMRs	Global Mandatory Requirements
HMP	Heritage Management Sub-plan required under CoA Condition C23
Heritage NSW	Heritage NSW, Department of Climate Change, Energy, the Environment and Water
HSE	Health, Safety and Environment
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.
IMS	John Holland Integrated Management System
ISCA	Infrastructure Sustainability Council of Australia
ISC	Infrastructure Sustainability Council

Term / Abbreviation	Definition
IS	Infrastructure Sustainability
IRPL	Inland Rail Pty Ltd
I2S	Illabo to Stockinbingal
JHG	John Holland Group
km	kilometres
LALC	Local Aboriginal Land Council
LGA	Local Government Area
LIW	Low Impact Work as defined by Table 1 of the CoA (CSSI-9406)
LLS	Local Land Services
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).
NGER	National Greenhouse and Energy Reporting Regulations 2008
Non-compliance	An occurrence, set of circumstances or development that is a breach of this approval.
NSW	New South Wales
OEMP	Operational Environmental Management Plan
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).
PIRMP	Pollution Incident Response Management Plan
PDCA	Plan-Do-Check-Act
POEO Act	*Protection of the Environment Operations Act 1997 (NSW)*
RMAR	rail maintenance access road
RAPs	Registered Aboriginal Parties
Relevant Councils	Cootamundra Gundagai Reginal Council; Junee Council
RTS	The Proponent's response to issues raised in submissions received during the public exhibition of the CSSI application.
ROLs	Road Occupancy Licences
SEARs	Secretary's Environmental Assessment Requirements
SEMP	Site Establishment Management Plan
SAP	Sensitive Area Plan
SES	NSW State Emergency Services

Term / Abbreviation	Definition
SIMP	Social impact Management Plan
SMART	Specific, Measurable, Achievable, Realistic and Timely
SQE	Safety, Quality and Environment
SuMP	Construction Sustainability Management Plan
TRA	Task Risk Assessment
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
UMMs	Updated Mitigation Measures
Work	Any physical work for the purpose of the CSSI including construction and low impact work but not including operational maintenance work. Note that the definition of work does not include ecological surveys.
WRA	Workplace Risk Assessment

3 Introduction

This Construction Environmental Management Plan (CEMP or Plan) has been prepared for the Inland Rail - Illabo to Stockinbingal Project (the Project).

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

3.1 Project Scope

Inland Rail is an approximate 1,600 kilometres (km) freight rail network that will connect Melbourne and Brisbane via regional Victoria, New South Wales (NSW) and Queensland. Comprising 13 sections, a staged approach is being undertaken to deliver Inland Rail.

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

The Project is located in south-western New South Wales (NSW) in the Riverina region (Figure 3-1). Illabo is a small town of approximately 132 people (Australian Bureau of Statistics, 2021) located at the southern end of the alignment, 16 kilometres (km) north-east of Junee in the Junee Local Government Area (LGA). Stockinbingal is a town of approximately 347 people (Australian Bureau of Statistics, 2021) is situated at the northern end of the project, approximately 20 km north-west of Cootamundra in the Cootamundra–Gundagai Regional LGA. The major towns surrounding the project are Wagga Wagga, about 50 km to the south, Young to the north-east and Cootamundra to the east.

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

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

- Connection to other rail lines, including Stockinbingal to Parkes line, Lake Cargelligo line, and Main Southern Railway
- One crossing loop and maintenance siding
- Level crossings and stock crossings
- Bridges over rivers and other watercourses, floodplains, and roads
- Upgrades of around 3.5 km of existing track for the tie-in works to the existing Main South Line at Illabo
- New track to maintain Lake Cargelligo line connection either side of the proposal
- Realignment and road-over rail bridge for a section of the Burley Griffin Way at Stockinbingal

- Realignment of Ironbong Road to allow for safe sight lines at the new active level crossing
- Ancillary infrastructure to support the proposal, inclusive of signalling and communications, drainage, drainage control areas, signage and fencing, and services and utilities
- Construction infrastructure, including ancillary facilities, and a temporary workforce accommodation facility.

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

Key features of the Project are shown on Figure 3-2. A detailed Project description is provided in Section 4.

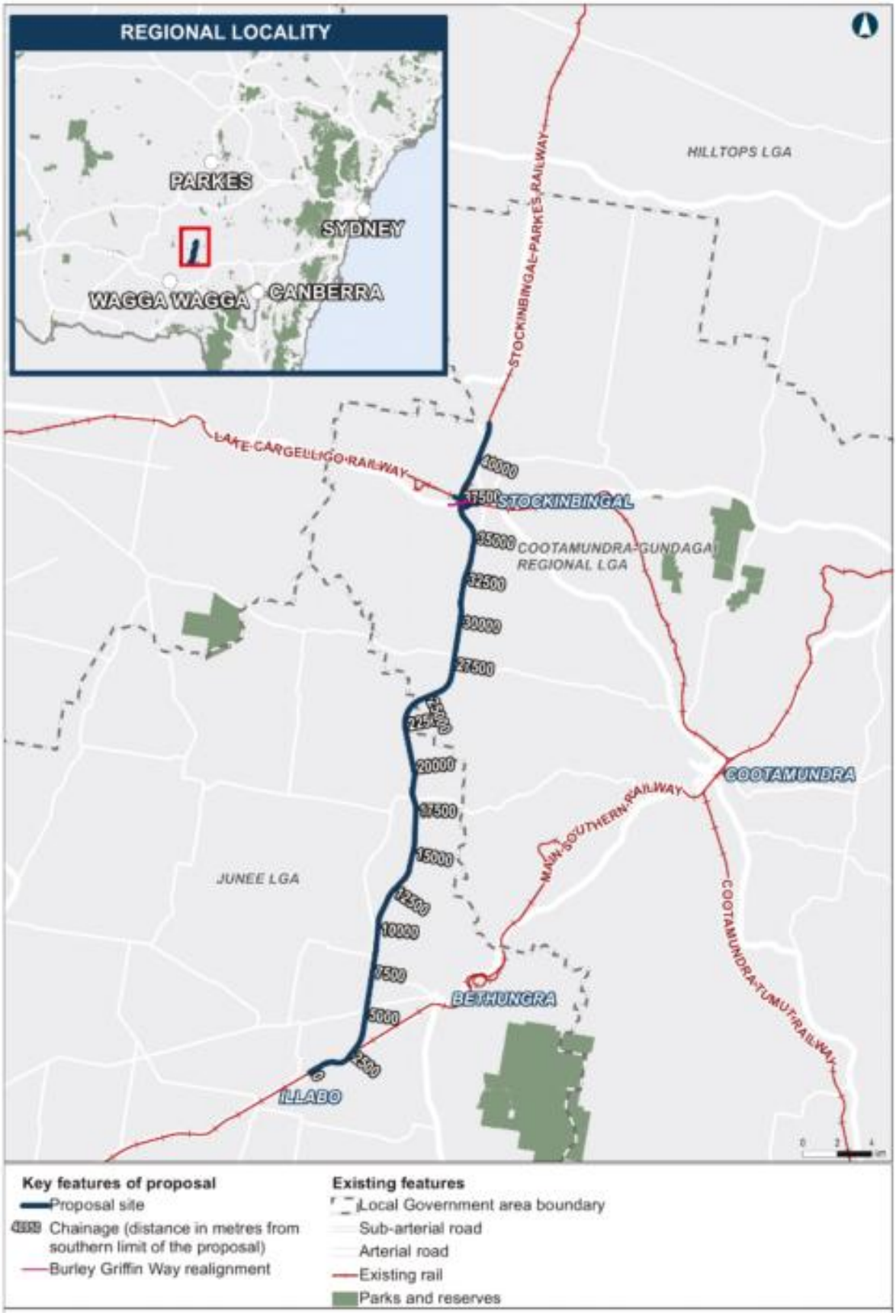


Figure 3-1 Project Locality (*Source: Illabo to Stockinbingal - Environmental Impact Statement, 2022*)

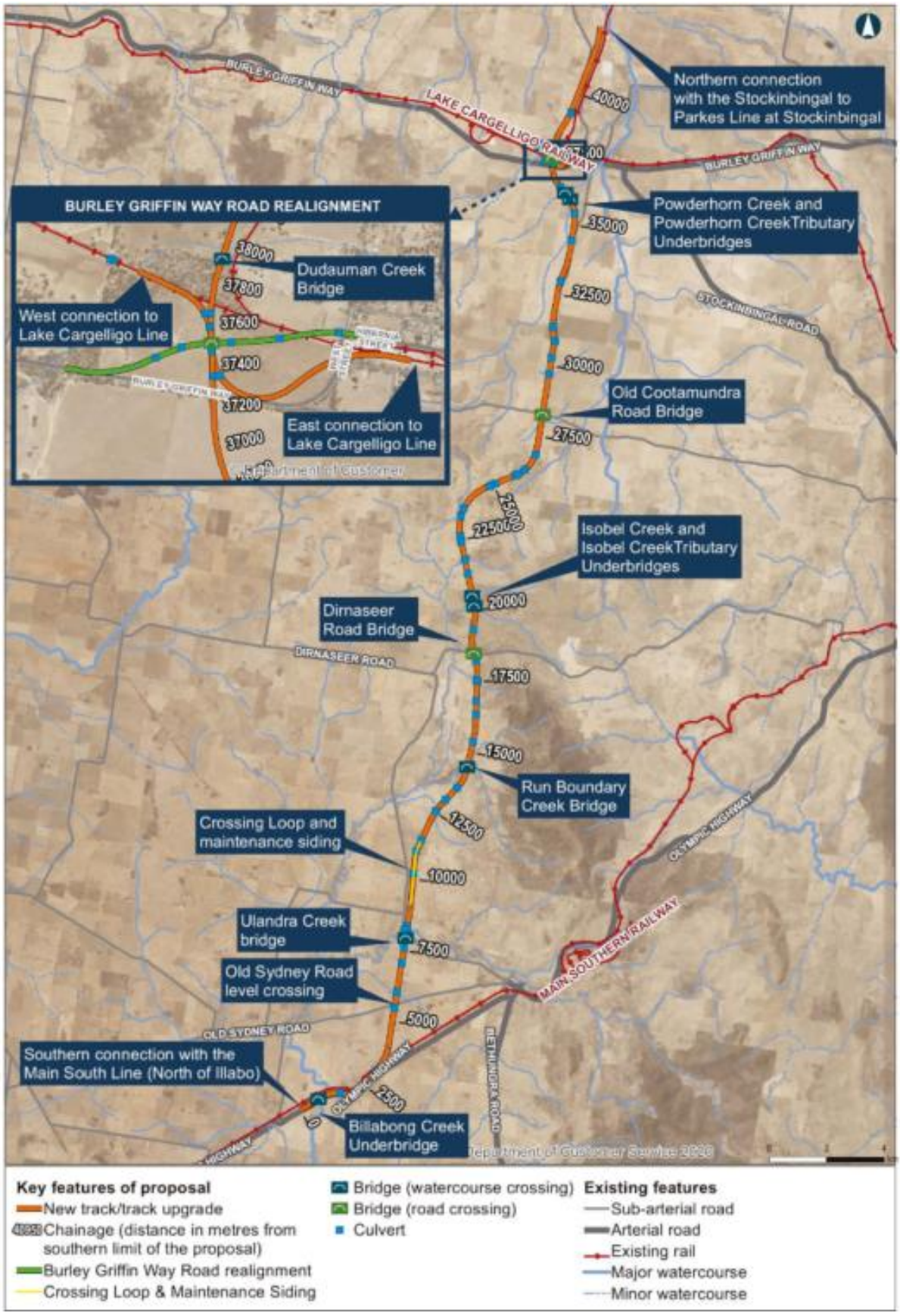


Figure 3-2 Key Project Features (*Source: Illabo to Stockinbingal - Environmental Impact Statement, 2022*)

3.2 Statutory Context

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

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

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

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

3.3 Purpose of the CEMP

The purpose of this CEMP and associated Sub-plans is to describe how John Holland Group (JHG) will manage potential environmental and community impacts during construction of the Project.

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

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

The CEMP is consistent with:

- NSW Minister's Infrastructure Approval (SSI 9406) dated 4 September 2024
- Federal Minister for the Environment Approval dated 28 October 2024
- *Illabo to Stockinbingal - Environmental Impact Statement* 2022
- *Illabo to Stockinbingal - Response to Submissions Report*, 2023
- *Environmental Management Plan Guideline – Guideline for Infrastructure Projects* (DPE, April 2020)
- *AS/NZS ISO 14001: Environmental Management Systems (EMS*)
- *AS/NZS ISO 31000:2018 Risk Management Guidelines*
- *Inland Rail Specification – Construction Environmental Management Framework – A2P* (Inland Rail, 2022).
- John Holland (JHG) Environmental Management System (EMS).

3.4 Scope of the CEMP

The CEMP and Sub-Plans outline how the Project will minimise environmental risks and achieve environmental outcomes by providing a structured approach to ensure appropriate UMMs, CoAs and controls are implemented.

This CEMP:

- provides a description of Project construction activities and program.
- details environmental obligations attached to the Project.
- identifies hazards and risks associated with Project construction and details processes for their initial and ongoing assessment and management.
- details environmental management policies, guidelines, and principles to be implemented during Project construction.
- details how and when the performance outcomes, commitments and mitigation measures specified in the Project Approval documentation will be implemented and achieved during Project construction.
- details how construction activities will be carried out to meet performance outcomes and mitigate risks, minimise environmental impacts, and prevent unauthorised environmental harm.
- details the inspection and monitoring program for ongoing assessment of Project environmental compliance and provides procedures for identification and rectification of environmental non-compliances and unauthorised environmental harm.
- details protocols and procedures for managing, rectifying, and reporting environmental non-compliances and incidents.
- details organisational roles and responsibilities of relevant Project personnel as they relate to environmental management during construction of the Project and their relationship with the Environmental Representative (ER).
- details training and induction of Project personnel in relation to environmental and compliance obligations.
- details the management plans, Sub-Plans, Protocols, and Procedures that support this CEMP.
- details the process for review and update to this CEMP and all associated Sub-Plans and programs.

Upon approval of this CEMP and the CEMP subplans and confirmation of compliance with any CoAs required to be satisfied prior to construction, the Project will commence Construction and any works being undertaken prior (i.e. Low Impact Works and Site Establishment) will be undertaken in accordance with the approved CEMP.

Management plans associated with the operational phase of the Project are excluded from this CEMP. Plans for the operational phase will be managed under an Operational Environmental Management Plan (OEMP) prepared by IRPL.

3.5 Conditions of Approval

As discussed in Section 2.1, this project is subject to both State and Federal approvals. The requirements of the State and Federal conditions relevant to the development of this CEMP are shown in Section 2.1 with cross references included to indicate where the CoA is addressed in this Plan or other Project management documentation.

3.6 Environmental Protection Licence

The Project will be subject to an Environment Protection Licence (EPL) as a Scheduled Activity for ‘railway activities – rail infrastructure construction’ under the *Protection of the Environment Operations Act 1997* (POEO Act). The EPL will be obtained prior to Construction commencement and will include clauses requiring the licensee to minimise the emission of pollution from the premises. The Project will be

constructed to meet the requirements of the EPL. This CEMP and the relevant sub-plans will be updated following issuing of the EPL as required.

3.7 Inland Rail D&C Specifications

The Inland Rail Design and Construct (D&C) Specifications provide guidance to achieve the desired outcomes in terms of quality or performance expected in the finished product for construction projects and are relevant to various construction activities on work sites to minimise impacts to the environment.

This CEMP and Sub-plans incorporate the relevant requirements from the Inland Rail D&C Specifications prepared for the Inland Rail – Illabo to Stockinbingal Project as listed in Table 3-1. It's noted that these are guidance documents only and are not required to be implemented in-full under this CEMP.

Table 3-1 Inland Rail D&C Specifications

Specification Reference	Specification Title
Contract No. 2200C0019	*Design and Construct Deed - Illabo to Stockinbingal Project*
0-0000-900-IAC-00-SP-001	*Minimum Requirements for Road Condition Survey*
0-0000-900-ELE-00-GU-0001	*Inland Rail Design Specification*
0-0000-900-PCS-00-SP-0001_0	*Complaints Management Requirements*
0-0000-902-EEC-00-SP-0001_1	*NSW Consistency Assessments*
0-0000-902-EMN-00-SP-0001_1	*NSW Construction Noise and Vibration Management Framework*
0-0000-900-EMN-00-ST-0001	*Inland Rail Noise and Vibration Management Strategy*
0-0000-900-EMN-00-SP-0001	*Specification - Operational Rail Noise and Vibration Assessments*
2-0001-220-EAP-00-RP-0010	*Technical Paper 11 – Social Impact Assessment*
0-0000-900-EEC-00-SP-0002_2	*Construction Environmental Management Framework – A2P*
0-0000-900-EEC-00-ST-1000_3	*Biosecurity Strategy*
0-0000-900-EEC-00-ST-0002_4	*Contamination, Spoil and Waste Strategy*
0-0000-900-ELE-00-ST-0001	*Landscape and Rehabilitation Strategy*
0-0000-900-ELE-00-GU-00001_2	*Landscape and Rehabilitation Framework*
0-0000-900-ELE-00-SP-1000_2	*Landscape Design*
0-0000-900-ESS-00-RP-0003	*Inland Rail Sustainability Strategy*
0-0000-900-ESS-00-SP-0001	*Inland Rail Sustainability Requirements*
0-0000-900-PCS-00-SP-0001_0	*Complaints Management Requirements*
(0-0000-902-EEC-00-SP-0001_1	*NSW Consistency Assessments*

3.8 Sustainability

John Holland and Inland Rail place a high importance on ensuring key sustainability outcomes are achieved in the delivery of the Project. Addressing sustainability requirements will be an ongoing process throughout the project life cycle. The Project will be delivered to meet the relevant objectives, targets and initiatives outlined in the *Inland Rail Sustainability Strategy* (0-0000-900-ESS-00-RP-0003).

In accordance with NSW CoA E148, the Project will be constructed in accordance with the Inland Rail Sustainability Strategy with the aim of achieving a minimum excellent ISC rating for both 'Design' and 'As-

built' phases. Further details regarding sustainability of the Project are provided in Section 5.2.8 and the *Sustainability Management Plan.*

3.9 Consultation

3.9.1 Internal consultation

In accordance with the requirements of the Project Deed, the EPL, Crown Lands License and the CoA, ongoing consultation will be undertaken between Inland Rail, John Holland, adjacent Inland Rail Project packages, other construction projects, stakeholders, the community and relevant agencies stakeholders. Consultation will be completed prior to and during construction to review potential cumulative impacts and to co-ordinate, plan and integrate construction methodologies/ activities as far as practicable to minimise cumulative impacts. This will include the coordination of respite between the various construction projects where nearby sensitive receivers are likely to experience concurrent construction impacts where feasible.

3.9.2 External consultation

Consultation with relevant stakeholders and Government agencies, in accordance with the requirements Condition B1 Community Consultation Strategy (CCS) as defined in the CoA, has been undertaken as part of the development of the CEMP, Sub-plans and Construction Monitoring Programs. Where a Sub-plan and/or Monitoring Program required consultation with identified parties, details of the consultation undertaken, matters raised by the parties, and how the matters were addressed are outlined in the applicable Sub-plans including consultation evidence in accordance with NSW CoA Conditions A10, C17, C27, C28(j) and E2. Details of consultation is contained in a separate consultation summary for each Sub-plan and monitoring program.

The approach to community consultation is documented in the Community Communication Strategy (CCS) that has been developed by Inland Rail in accordance with NSW CoA Conditions B1 to B5 and subsequently approved by the Planning Secretary. The process for consultation by John Holland during the Project will be consistent with the Inland Rail CCS.

In accordance with CoA C17, Table 3-2 provides a summary of the relevant authority(s), council(s) and agencies that require consultation during preparation of the CEMP, Sub-Plans and monitoring programs .

External distribution for consultation and approval of the CEMP, Sub-Plans and monitoring programs will be undertaken by the Project following Inland Rail and ER reviews. The CEMP, sub-plans and monitoring programs will be updated in consultation with the relevant external parties and will then be endorsed by the ER in accordance with CoA requirements, confirming that they are consistent with the requirements of the approval documentation.

After this external consultation and endorsement process is complete, Inland Rail will submit the required document to the Planning Secretary via the Planning Portal for approval.

Table 3-2: Stakeholder Consultation

Source		Stakeholder																	
Plan, Strategy or Document	**CoA**	**Councils**	**DPHI**	**DECCW Water**	**Crown Lands**	**Heritage NSW**	**RAPs**	**LALC**	**SES**	**BCS**	**EPA**	**TfNSW**	**Utility Providers**	**LLS**	**DPI Agriculture**	**DPI Fisheries**	**RFS / FRNSW**	**Business / Community Organisations**	**Landowners / Residents /**
CEMP	C12		X																
Construction Noise and Vibration Management plan	C19	X	X																
Biodiversity Management Sub Plan	C20		X							X									
Traffic, Transport and Access Management Sub Plan	C21	X	X									X							
Soil and Water Management Sub Plan	C22	X	X							X									
Heritage Management Sub Plan	C23	X	X			X	X												
Flood Emergency Management Sub Plan	C24	X	X						X	X									
Biosecurity Management Sub Plan	C25		X							X				X	X				
Surface Water Monitoring Program	C27	X	X	X	X														
Traffic Transport and Access Monitoring Program	C27	X	X									X							
Out of Hours Work Protocol	E5		X								X								
Blasting Management Strategy	E10		X																
Fauna Connectivity - Baseline Monitoring Program	E40									X									
Connectivity Strategy	E44		X							X						X			
Social Impact Management Plan	E109	X	X					X										X	
Bushfire Emergency Plan	E121		X														X		
Visual and Landscape Impact Mitigation Plan	E126		X																X
Aboriginal Community Stakeholder Engagement Strategy	E132		X			X	X	X											
Aboriginal Cultural Values Plan	E133		X			X	X	X											

Source		Stakeholder																	
Plan, Strategy or Document	CoA	Councils	DPHI	DECCW Water	Crown Lands	Heritage NSW	RAPs	LALC	SES	BCS	EPA	TfNSW	Utility Providers	LLS	DPI Agriculture	DPI Fisheries	RFS / FRNSW	Business / Community Organisations	Landowners / Residents /
Additional Aboriginal Archaeological Survey and Test Excavation Methodology	E135		X			X	X												
Aboriginal Cultural Heritage Excavation Report	E139	X	X			X	X	X											

3.10 CEMP Endorsement and Approval

The CEMP and associated Sub-Plans, strategies and monitoring programs undergo periodic review by the Project Environment and Sustainability Manager, Project senior management and the Project Director. Following the review and revision process, internal signoff by the Project Environment and Sustainability Manager and the Project Director will be undertaken.

This CEMP and Sub-plans will be reviewed by the Inland Rail Principal Environment Advisor (or their delegate) and endorsed by the ER, and where applicable submitted to the Planning Secretary for approval in accordance with NSW CoA Conditions C14, C15 and C16. Table 3-3 below outlines all of the CEMP sub-plans required to be endorsed by the ER and approved by DPHI prior to construction commencing. It's noted that some plans only require endorsement by the ER and does not require approval by DPHI as noted in Table 3-3.

Table 3-3 CEMP and sub-plans for DPHI approval and ER endorsement.

Document Name	CoA	Document Number	Approval/Endorsement	Phase	Timing
Unexpected and Incidental Finds Protocol	A17	I2S_ 5-0019-220-PES-00-PR-0001	Endorsement by the ER and Relevant State Agencies	LIW, Pre construction	Prior to the commencement of Low impact Work
Construction Environmental Management Plan	C13	I2S_5-0019-220-PMA-00-PL-0037	Endorsement by the ER prior to submission to DPHI	Pre-Construction, Construction	Submission to DPHI 1 month prior to Construction
Noise and Vibration Management Sub-Plan	C19	I2S_5-0019-220-PMA-00-PL-0054	Endorsement by the ER prior to submission to DPHI	Pre-Construction, Construction	Submission to DPHI 1 month prior to Construction
Biodiversity Management Sub Plan	C20	I2S_5-0019-220-PMA-00-PL-0055	Endorsement by the ER prior to submission to DPHI	Pre-Construction, Construction	Submission to DPHI 1 month prior to Construction
Traffic, Transport and Access Management Sub Plan	C21	I2S_5-0019-220-PMA-00-PL-0056	Endorsement by the ER prior to submission to DPHI	Pre-Construction, Construction	Submission to DPHI 1 month prior to Construction
Soil and Water Management Sub Plan	C22	I2S_5-0019-220-PMA-00-PL-0058	Endorsement by the ER prior to submission to DPHI	Pre-Construction, Construction	Submission to DPHI 1 month prior to Construction
Heritage Management Sub Plan	C23	I2S_5-0019-220-PMA-00-PL-0059	Endorsement by the ER prior to submission to DPHI	Pre-Construction, Construction	Submission to DPHI 1 month prior to Construction
Flood Emergency	C24	I2S_5-0019-220-	Endorsement by the ER prior to submission to DPHI	Pre-Construction, Construction	Submission to DPHI 1 month

Document Name	CoA	Document Number	Approval/Endorsement	Phase	Timing
Management Sub Plan		PMA-00-PL-0062			prior to Construction
Biosecurity Management Sub Plan	C25	I2S_5-0019-220-PMA-00-PL-0061	Endorsement by the ER prior to submission to DPHI	Pre-Construction, Construction	Submission to DPHI 1 month prior to Construction
Air Quality Management Sub Plan	RMM AQ-1	I2S_5-0019-220-PMA-00-PL-0072	Endorsement by the ER prior to commencement of Construction	Pre-Construction, Construction	Submission to ER 1 month prior to Construction
Contaminated Land and Hazardous Material Management Plan	RMM SC-7	I2S_5-0019-220-PMA-00-PL-0070	Endorsement by the ER prior to commencement of Construction	Pre-Construction, Construction	Submission to ER 1 month prior to Construction
Groundwater Mitigation and Management Sub-Plan	RMM GW-4	I2S_5-0019-220-PMA-00-PL-0069	Endorsement by the ER prior to commencement of Construction	Pre-Construction, Construction	Submission to ER 1 month prior to Construction
Waste Management Sub-Plan	RMM WM-2	I2S_5-0019-220-PMA-00-PL-0071	Endorsement by the ER prior to commencement of Construction	Pre-Construction, Construction	Submission to ER 1 month prior to Construction
Social Impact Management Plan	E109		Endorsement by ER prior to submission to DPHI for approval.	Pre-Construction, Construction	Approved by the Planning Secretary at least one month before the receipt of CEMPs, CEMP sub-plans and monitoring programs required by Conditions C12 and C17. And, Two (2) months prior to the commencement of construction

Document Name	CoA	Document Number	Approval/Endorsement	Phase	Timing
Temporary Workforce Accommodation Management Plan	A18		Endorsement by ER prior to submission to DPHI for approval	Pre-Construction, Construction	Endorsed by the ER and submitted to DPHI for approval one month prior to the establishment of the accommodation facility
Site Establishment Management Plan	C5		Endorsement by ER prior to submission to DPHI for approval	Pre-Construction, Construction	Submitted to DPHI for approval one month before the establishment of the ancillary facility or temporary accommodation facility

Construction of the Project will not commence until the CEMP and Sub-plans are endorsed/approved by the relevant party i.e. ER and/or Planning Secretary. The CEMP and CEMP Sub-plans, as approved, including any minor amendments approved by the ER will be implemented for the duration of construction.

4 Project Description

4.1 Project Description

4.1.1 Overview

The Project is a new rail corridor that would connect Illabo to Stockinbingal in NSW. 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 Project passes through agricultural and rural properties in the Riverina region of NSW between the towns of Illabo and Stockinbingal.

The key features of the Project include:

- a total extent of about 42.5 km, including about 39 km of new, greenfield railway between Illabo and Stockinbingal
- single-track standard-gauge railway on a combination of existing ground level, embankments and in cuttings
- eight new bridges at watercourses, two road overbridges and one grade-separated bridge (road-over-rail) at Burley Griffin Way
- one crossing loop and associated maintenance siding, located between chainage 9,200 and chainage 11,400
- construction of new level crossings and alterations of existing level crossings (at public roads and private accesses)
- stock underpasses to allow movement of livestock
- level crossings at grade for large farm equipment and vehicles across the rail line, and livestock where there is no nearby stock underpass
- one major drainage diversion to collect and transport stormwater away from the rail line
- large detention basin to control release and reduce peak flood levels
- installation and upgrade of about 88 cross drainage culverts below the rail formation and 27 longitudinal drainage culverts below level crossings
- upgrades to about 3.5 km of existing track for the tie-in works to the existing Main South Line at Illabo, and the Stockinbingal to Parkes Line at Stockinbingal
- construction of about 1.7 km of new track to maintain the existing connection of the Lake Cargelligo rail line either side of the Project
- realignment of a 1.4 km section of the Burley Griffin Way to provide an underbridge at Stockinbingal
- realignment of Ironbong Road to allow for safe sight lines at the new active level crossing
- one workforce accommodation camp.

4.1.2 Project program

Construction of the Project is expected to commence in September 2025with practical completion scheduled to occur in Quarter 1, 2027 subject to weather.

Table 4-1 Indicate construction timing

Indicative stages	Chainage	Indicate duration (work days)	Indicative timing
Enabling works	Across the site	40	Early 2025 (approximately 2 months)
Site establishment	Across the site	70	Mid 2025 (approximately 3 months)
Main construction works- Section 1	0-2900	108	Mid- late 2025 (approximately 5 months)
Main construction works- Section 2	2901-8840	109	Late -early 2026 (approximately 5 months)
Main construction works- Section 3	8841-18500	157	Mid 2026 (approximately 7 months)
Main construction works- Section 4	18501-28300	196	Mid- late 2026 (approximately 9 months)
Main construction works- Section 5	28301- 37300	171	Late 2026- early 2027 (approximately 8 months)

4.2 Construction Activities

4.2.1 Indicative construction methodology

Initial construction planning to identify key elements including potential construction methodologies, earthworks (cut and fill) requirements, workforce requirements, resource requirements (including water sources), material sources and construction impact zones has been undertaken as part of design development to date.

The Project has been divided into six sections:

- Section 1: Chainage 0 to 2900
- Section 2: Chainage 2901 to 8840
- Section 3: Chainage 8841 to 18500
- Section 4: Chainage 18501 to 28300
- Section 5: Chainage 28301 to 37300
- Section 6: Chainage 37300 to 42600.

For each section, construction would typically involve:

- site establishment and enabling works
- main construction works
- testing and commissioning
- finishing works.

4.2.2 Site Establishment and Enabling Works

Site establishment and enabling works would generally involve:

- consulting landowners/occupants, where required
- identifying property access modifications along the alignment, including the relocation of existing facilities
- completing low impact works that have not been completed prior to the commencement of construction in accordance with this CEMP
- demolishing buildings and other structures
- installing environmental controls, including erosion and sedimentation control basins, diversion drains and other erosion and sedimentation control measures, and temporary exclusion fencing for sensitive areas
- implementing traffic controls
- establishing ancillary facilities and construction site compounds
- removing vegetation
- establishing site access roads where required
- relocating utilities as required
- delivering and stockpiling of materials including rail, sleepers, ballast, culverts and structural fill.

In accordance with CoA C5, before the establishment of any ancillary facility (excluding minor ancillary facilities established under CoA C9) or temporary workforce accommodation facility, the JHG will prepare a Site Establishment Management Plan (SEMP) which outlines the environmental management practices and procedures to be implemented for the establishment of the ancillary facilities or temporary workforce accommodation facility. The SEMP will be prepared in consultation with the relevant council and state agencies and endorsed by the ER. The SEMP will be submitted to the Planning Secretary for approval one (1) month before the establishment of any ancillary facilities or temporary workforce accommodation facility. The SEMP will detail the management of the ancillary facilities or temporary workforce accommodation facility, and include:

a) a description of activities to be undertaken during establishment of the ancillary facility or temporary workforce accommodation facility (including indicative scheduling and duration of work to be undertaken at the site);

b) figures illustrating the proposed operational site layout/s;

c) details of planned communication with the community consistent with the requirements of CoA B2;

d) a program for ongoing analysis of the key environmental risks arising from the site establishment activities described in subsection (a) of CoA C5, including an initial risk assessment undertaken prior to the commencement of site establishment work;

e) details of how the site establishment activities described in subsection (b) of CoA C5 will be carried out to:

- meet the performance outcomes stated in the documents listed in CoA A1, and
- manage the risks identified in the risk analysis undertaken in subsection (d) of CoA C5; and

f) a program for monitoring the performance outcomes consistent with the requirements of CoA C17 and C27.

Nothing in CoA C5 prevents the JHG from preparing individual SEMPs for each ancillary facility, or one SEMP for all ancillary facilities and the temporary workforce accommodation facility. The approved SEMP will be implemented.

Upon commencement of construction, the SEMP will cease to have effect and this CEMP, as required by CoA C12 will apply to the operation of ancillary facilities and the Temporary Workforce Accommodation Facility Management Plan required by CoA A18 will apply to the operation of accommodation facilities.

4.2.3 Track Works

Indicative methodologies for track work components are outlined. These components are subject to further design development and specific work planning.

A general methodology for the installation of new track is:

- clearing, grubbing, stripping and stockpiling topsoil
- excavating in areas of cut
- placing excavated material and compact in fill areas
- crushing excavated material and process into earthworks formation materials
- placing capping on top of earthworks formation and compact
- trimming batters of the formation and topsoil/landscape
- placing new ballast on top of the formation and compact
- placing concrete sleepers and rail on prepared ballast bed and weld up rails
- placing new ballast on top of or around the sleepers
- tamping and profiling the ballast around the sleepers and line to a smooth alignment
- undertaking a profile grind of the rails using a rail grinder.

4.2.4 Track Upgrades

A general methodology for the track upgrade works is provided below and would apply to the northern and southern ends of the Project near the rail tie-ins (toward Illabo at chainage 0 and Stockinbingal at chainage 39200) and include:

- cutting the existing track at location where the Project would connect
- excavating and removing existing track and formation
- constructing new track as described above
- reinstating the existing track by welding and adjusting track to interface back into existing track alignment at the rail tie-ins.

4.2.5 Culverts

Culverts would be pre-cast offsite and installed along the Project site as the works progress. A general methodology for the installation of box culverts would involve:

- excavating to the required depth
- placing and compacting bedding, pouring and binding material
- installing the base slab, crown units or place pre-cast culvert and concrete pipes on the bedding material/matting
- installing pre-cast headwalls or cast headwalls in situ

- pouring inlet and outer aprons/cut off walls
- installing rip-rap and scour protection
- placing ballast, sleepers and rail on top of the culverts, and tamp and profile the ballast under and around the sleepers and weld up tracks.

A general methodology for the installation of pipe culverts would involve:

- excavating to the required depth
- placing and compacting bedding
- installing pipe culverts
- backfilling the pipes
- installing headwalls
- installing rip-rap and scour protection.

4.2.6 Drainage

A general methodology for open drainage construction is as follows:

- excavating earth material from the side of the existing track formation
- trimming base and sides of the drain
- shaping and lining the drain with the required lining material.

4.2.7 Level Crossings

A number of level crossings are required to be constructed. A general construction methodology for these works is as follows:

- establishing traffic controls and temporary diversion requirements to local roads
- treating the foundation of fill zones
- establishing earthworks to the road to suit the new rail level height
- implementing road pavement construction
- installing wearing course
- installing signage and signals
- setting up interim crossing until signals are installed and activated
- modifying active protection systems to cover realignments and protection upgrades
- drawing line marking.

4.2.8 New Bridges

Typically, bridge construction works for road and water crossings would involve the following activities:

- establishing the work site, temporary hoardings and laydown areas
- establishing temporary exclusion fencing for sensitive areas
- establishing erosion and sedimentation controls
- removing/relocating of trees and vegetation (where required)
- establishing construction of site access for plant and materials
- implementing site preparation and levelling activities for site compounds

- piling pad construction for piling works
- installing of piled foundations (or bearing slabs/pad footings)
- removing existing track and bridge spans (where required)
- demolishing existing abutments (where required)
- constructing formwork, steel reinforcement and cast concrete for piers
- constructing formwork, steel reinforcement and cast concrete for headstocks
- constructing new abutments (where required)
- mobilising crane and install precast girders
- installing drainage behind abutments
- casting of the deck slab
- casting of edge barriers and install hand/guard rails
- placing ballast, sleepers and rail and landscaping and restoration of disturbed areas.

4.2.9 Rail Maintenance Access Road

The rail maintenance access road (RMAR) would be constructed to provide vehicular access alongside the track to enable maintenance and emergency access during operation; however, the RMAR would be initially developed early in project construction to provide a construction haul route along the length of the alignment within the Project site.

Generally, construction works to establish the RMAR (for the purposes of use as a haul road) would include:

- clearing and grubbing vegetation as required
- treating the foundation of the RMAR
- placing gravel layer (if required) to provide a firm and consistent surface
- installing temporary and permanent environmental controls if required.

As a final step (for operation), signage would be installed along the RMAR.

4.2.10 Road modifications

The Project alignment would interface with the public road network at Burley Griffin Way, Ironbong Road, Old Sydney Road, Dirnaseer Road, Old Cootamundra Road and Corbys Lane, as well as a number of unformed roads and private access tracks that the Project interfaces with. There would also be two locations where the road would be realigned where it interfaces with the Project—at Ironbong Road and Burley Griffin Way.

Generally, works at these locations would include:

- establishing traffic management arrangements (e.g. identifying temporary diversion requirements to local roads)
- relocating existing services
- placing fill and earthworks for foundation treatments
- installing the crossing structures (bridges, level crossings or realigned roads)
- paving the road
- placing line markings

- installing road signage and road furniture.

Further details are provided in the Construction Traffic, Transport and Access Management Sub Plan (CTTAMP).

4.2.11 Signalling and control works

There is a requirement for the installation of signalling and control works to facilitate the safe operation of the Project. This would involve the use of signals, motors, boom gate and signalised level crossings. The signalling network would be installed to connect to the existing network. Generally, works would include:

- installing cabling routes and conduits
- placing earthworks to install the signalling infrastructure
- installing location huts with the control electronics, mast signals, level crossing signals and boom gates
- testing and commissioning the signals.

4.2.12 Earthworks

Earthworks would be required for:

- creating embankments and cuttings to maintain rail gradients in accordance with adopted design requirements
- constructing level crossings
- constructing the new crossing loop
- constructing culverts and bridges
- processing site material into formation materials with the following steps:
- loading the crusher with collected excavated material
- crushing excavated material
- sorting crushed excavated material into different sizes through a mechanical screen to create formation material. Potentially may require a secondary crush dependent on the excavated material type.
- testing of the formation material is performed and labelled stating type of material and usability
- loading of usable formation material and placed through the Project as needed.

Earthworks would also be required to construct the formation for the ancillary infrastructure associated with the Project. Around 1.5 million cubic meters (m^3) of material, including around 1.3 million m^3 of general fill (road and rail) would require excavation and placement as part of the earthworks required. General fill would be generally sourced from excavated material within the Project and would be balanced across the Project site. There is a net balance between material generated from excavation of cuts and material placement for construction of embankments and other landforms to achieve the necessary earthworks for the project, based on the movement of material, as detailed in Table 4-2.

Table 4-2: EIS Earthworks Assessment for Fill Requirements

Area	Surplus / Deficit	Surplus Destination
Section 1	Surplus	Section 2
Section 2	Deficit	N/A
Section 3	Surplus	Across the Project
Section 4	Surplus	Section 5
Section 5	Deficit	N/A
Section 6	Surplus	Section 5

Where the excavated material is used to meet the fill material needs of the Project, the material would be assessed for compliance and suitability before reuse. The final cut and fill balance for the Project would be confirmed during further design development.

4.2.13 Demolition

It is anticipated that construction of the Project would require the demolition of a number of non-residential buildings and removal of existing road and rail infrastructure located within the Project site.

4.2.14 Testing and Commissioning

Testing and commissioning of the rail line and communication and signalling systems would be undertaken to ensure that all systems and infrastructure are designed, installed and operating according to ARTC's operational requirements. This will involve condition testing the signalling systems and other pre-operational checks.

4.2.15 Finishing Works and Reinstatement

Site reinstatement and rehabilitation would be undertaken progressively during the works and would include the following activities:

- demobilising site compounds and facilities
- removing all materials, waste and redundant structures from the works sites
- decommissioning all temporary work site signs
- removing temporary fencing
- establishing permanent fencing
- decommissioning site access roads that are no longer required
- restoring disturbed areas as required, including revegetation, where required.

Permanent spoil mounds are not anticipated to be required for the Project as any surplus material would be reused or taken offsite for reuse or disposal as appropriate. Site rehabilitation would be undertaken in accordance with the rehabilitation strategy.

Following completion of construction, any residual land not required for operational purposes would be returned to at least its former condition. Where land used for construction had been leased on a temporary basis from the landowner, land would be handed back in accordance with the terms of the lease.

4.3 Ancillary Facilities

4.3.1 Ancillary Facilities Establishment

Temporary compounds and ancillary facilities will be required to support construction of the Project. Primary site compounds will be established for each stage of the Project. These sites will accommodate most of the management, engineering, specialist, and administrative personnel. Construction compounds are enclosed areas that are not open to the public and are used to support construction works in nearby areas. Construction compounds would generally accommodate the following:

- Office accommodation
- Lunchrooms
- Staff amenities
- First aid room
- Security
- Laydown area
- Stockpiles and material storage
- Bunded refuelling area
- Hazardous material storage.
- Storage containers
- Mobile plant and equipment
- Light vehicle parking.

The Ancillary Facility Site Establishment Management Plan (SEMP) as required by CoA Condition C5, details the location, management measures and purpose of compound and ancillary facilities required for the Project prior to construction and approval of the CEMP. The Ancillary Facility SEMP will be submitted for separate approval during detailed design for relevant ancillary facilities required prior to construction.

A total of twenty-two (22) construction ancillary facilities were identified in the Environmental Assessment Documentation for the I2S Project. These sites are essential for the delivery of the Project with activities at each ancillary facility varying according to the support required at that location. The proposed locations for the primary construction compounds and proposed indicative uses are provided in Table 4-3. Appendix A8 provides the locations of the construction ancillary facilities.

Table 4-3: Ancillary Facilities

Facility ID	Potential Activities
I2S-037	Stockpile, Laydown, Rail Welding Location
I2S-036	Site Office, Ablution Block, Crib Room, First Aid Facility
I2S-035	Stockpile, Laydown, Water Storage, Rail Welding Location
I2S-034	Stockpile, Laydown, Water Storage
I2S-032	Stockpile, Laydown
I2S-040	Site Office, Stockpile, Laydown
I2S-041	Stockpile, Laydown, Site office, Water tank farm (up to 6 x 30,000 litres), Fuel storage for 50,000 litres
I2S-030	Caravan + Stockpile, Laydown
I2S-029	Site Office, Stockpile, Laydown, Rail Welding Location
I2S-028	Site Office, Stockpile, Laydown, Water Storage, Fuel Storage, Batching Plant

Facility ID	Potential Activities
I2S-027	Caravan, Stockpile, Laydown
I2S-026	Caravan, Stockpile, Laydown
I2S-025	Site Office, Stockpile, Laydown
I2S-024	Site Office, Stockpile, Laydown, Water Storage, Fuel Storage
I2S-042	Stockpile, Laydown
I2S-021	Stockpile, Laydown
I2S-019	Stockpile, Laydown
I2S-018	Site Office, Stockpile, Laydown
I2S-013	Site Office, Stockpile, Laydown, Water Storage, Fuel Storage, Batching Plant, Rail Welding Location
I2S-010	Site Camp
I2S-044	Stockpile, Laydown
I2S-045	Site Compound, Stockpile, Laydown

Construction of the Project would involve both onsite construction activities (e.g. welding of track) and use of prefabricated components (e.g. culverts) that would be manufactured offsite (with those facilities being outside the scope of the Project).

4.3.2 Access to Ancillary Facilities

Access will be managed in accordance with CoA C7 and C8 which are detailed below.

- CoA C7 – Where possible, ancillary facilities must be accessed via existing public roads and/or the existing rail corridor. Where access via existing roads or the rail corridor is not possible, the Proponent may utilise existing private access tracks on private property but only with the written permission of the landowner. The Proponent must consult with each landowner whose property is required for access and agree on the terms and conditions relating to access arrangements. Nothing in this condition prevents the landowner from refusing the Proponent access to and via their land. New construction access tracks on private property must comply with the requirements of CoA C4.
- CoA C8 – The Proponent must ensure that all roads / tracks that will be used to access ancillary facilities are to the standard necessary to provide access as agreed with landowners, asset owner(s) and/or the relevant roads authority (as applicable), including a trafficable surface suitable to accommodate the type of vehicle movements that are anticipated to be associated with the construction of the CSSI.

The construction compounds identified in Table 4-3 are generally located with immediate access to the local road network to minimise the need for dedicated access tracks. As the number and locations of construction compounds may change during construction planning, ancillary facilities that are not identified within the environmental Assessment Documentation will be assessed in accordance with CoA C4. Any additional or relocated construction compounds would be subject to a consistency assessment (see Section 9.7.4.2) which will assess compliance with CoA C7 and CoA C8.

4.3.3 Operation of Ancillary Facilities

In accordance with CoA Condition C6, the use of an ancillary facility for construction (i.e. excluding minor ancillary facilities) must not commence until the CEMP and relevant Sub-plans and monitoring programs have been approved by the Secretary.

Minor ancillary facilities required for the Project will be established in accordance with CoA Condition C9. These sites will be located within the construction boundary and will be assessed by the ER for the following:

- minimal amenity impacts to surrounding residences and businesses
- minimal environmental impact with respect to waste management and flooding
- no impacts on biodiversity, soil and water, and heritage items beyond those already approved.

Where a minor ancillary facility is required, a minor ancillary facility application will be made to Inland Rail and the ER to determine if the minor ancillary facility satisfies these criteria.

4.3.4 Ancillary Facilities Management Requirements

The following provides environmental management and mitigation measures for all ancillary facilities that will be implemented:

- A SEMP(s) will be prepared for all ancillary facilities (excluding MAFs) in accordance with CoA C5.
- Boundary screening must be erected between ancillary facilities (excluding minor ancillary facilities) and temporary workforce accommodation facility, adjacent to and visible from sensitive land use(s) (including occupied residences on agricultural properties) for the duration of the time that the ancillary facility or accommodation facility is in use, unless otherwise agreed with the owner and occupier of the adjacent sensitive land use(s) (CoA C10)
- Boundary screening must minimise visual impacts on adjacent sensitive land use(s) and not create a fire hazard (CoA C10)
- A construction noise and vibration management plan would be prepared and implemented in accordance with the Inland Rail NSW Construction Noise and Vibration Management Framework. The plan would include measures, processes and responsibilities to manage and monitor noise and vibration, and minimise the potential for impacts during construction (NV-6)
- Construction compounds would be located, as far as practicable, within cleared areas and away from sensitive receivers. Construction compounds would be designed and orientated to minimise visual impacts. This would include locating areas of low visual amenity away from sensitive receivers, and erecting boundary screening around construction compounds, where appropriate. (LV-4 and LV-7)
- Lighting of work areas, construction compounds and work sites would be oriented to minimise glare and light spill impact on adjacent receivers (LV-6)
- Detailed design and construction planning would avoid direct impacts on identified items/sites of Aboriginal heritage significance as far as reasonably practicable. The location of construction compounds and associated access routes would be reviewed to ensure, as far as practicable, they are not located in areas of medium or high archaeological potential (AH-1)
- Construction planning and the layout of construction work sites and compounds would be undertaken with consideration of overland flow paths and flood risk, avoiding flood prone land and flood events where practicable, i.e. the location and level of long-term construction facilities (such as compounds, access tracks and stockpiles) that could obstruct and divert flows (HF-5).

Note: Additional traffic and transport, flooding, and other community notification requirements may be required and all relevant CoAs and UMMs should be consulted.

4.3.5 Decommissioning of Ancillary Facilities

Once an ancillary facility is no longer required, the land will be returned to its pre-existing or better condition within six months of the site being decommissioned or within two years of operation (whichever is the earliest) or unless otherwise agreed with the Planning Secretary.

Any agreements for the temporary use of land for construction purposes must provide for the rehabilitation of that land and any structures on it to its pre-construction state, unless otherwise agreed with the landowner (CoA C11).

4.3.6 Minor Ancillary Facilities

In accordance with CoA C9, temporary Minor ancillary facilities including lunch sheds, office sheds, portable toilet facilities, material laydown sites, stockpile areas, areas used to assemble infrastructure and the like can be established and used where they satisfy the following criteria:

- Are located within or adjacent to the construction boundary
- Have been assessed by the ER to have:
  - minimal amenity impacts to surrounding residences and businesses, after consideration of matters such as compliance with the *Interim Construction Noise Guideline* (DECC, 2009), traffic and access impacts, dust and odour impacts, visual (including light spill) impacts
  - Minimal environmental impact with respect to waste management and flooding
  - No impacts on biodiversity, soil and water, and heritage items beyond those already approved under other terms of this approval.

A number of ancillary sites have been approved in the EIS and Submissions Report. Circumstances may arise during Low Impact Work (LIW) or early stages of works where additional, or changes to the location of, ancillary facilities are required. Where this situation arises an assessment against CoA C9 will be undertaken and a minor ancillary facility checklist will be completed (refer to Appendix A9). The ER will complete a review and endorse the assessment undertaken to confirm the proposed site meets the CoA requirements.. Minor ancillary sites will not be established until ER sign off and Inland Rail certification has been received.

4.4 Design

The Project Design Management Plan describes the approach to Environment in Design (EID). It describes the activities involved with design input, output, verification, validation, and change control practices. It sets responsibilities for defining the verification method for each package/activity and establishing dates for the sequential review of environmental risks. The environment team will work closely with the design team to coordinate appropriate technical inputs from the broader project team and relevant subject matter experts.

The design team(s) will maintain a register of EID requirements adapted from the CoA, EPBC Approval, EIS, Submissions Report, Inland Rail Specifications, this CEMP and associated Sub-Plans. A checklist shall be included in each design report for each individual design package which covers all relevant requirements from these documents. The checklist shall be specific to each discipline and shall demonstrate how the design documentation is consistent with Project requirements. Appendix A7 describes the design documents required to address key CoA and UMM requirements.

5 Environmental Management System Overview

5.1 Environmental Management System

The Project EMS is based on the ISO 14001 accredited John Holland EMS, which itself forms part of the overall John Holland Integrated Management System (tailored to satisfy Project-specific requirements. It provides a framework to ensure an integrated approach to meeting Project requirements and defines how the Project will minimise impacts to the environment. It comprises a combination of governance documentation, Project-specific management plans (including this CEMP), procedures and tools.

The basis for the EMS is the concept of Plan-Do-Check-Act (PDCA), as shown in the figure below. Figure **5-1** PDCA Model

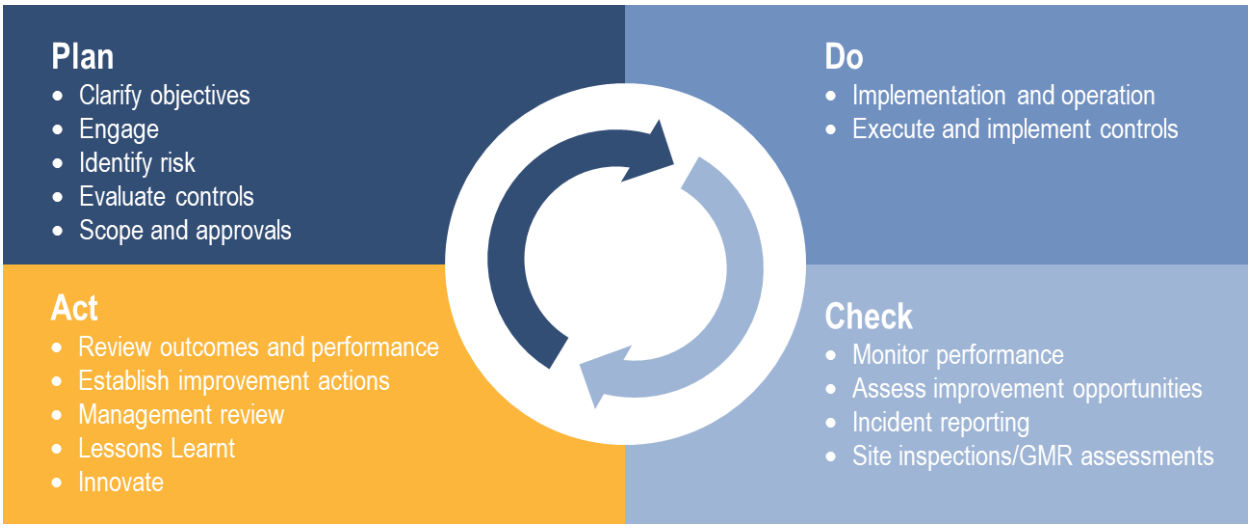


Figure 5-1 **PDCA Model**

The PDCA model provides an iterative process to achieve continual improvement. As applied to the Project environmental processes, it can be briefly described as follows:

- Plan: Establish environmental objectives and processes necessary to deliver results in accordance with the John Holland environmental policy.
- Do: Implement the environmental processes as planned.
- Check: Monitor and measure processes against the environmental policy, including its commitments, environmental objectives, and operating criteria, and report the results.
- Act: to continually improve the environmental processes.

The framework introduced in ISO14001 is integrated into a PDCA model within the EMS and in turn this Project CEMP.

In accordance with the John Holland Environmental Policy (refer to Appendix A4), the Project will:

- Continually improve the EMS to enhance performance, through management review and CEMP revisions
- Maintain third party certification of the overarching EMS to ISO 14001 with independent verification of implementation and effectiveness.

The EMS provides structure to environmental management of the Project and covers areas such as training, record management, inspections, objectives, and policies. This CEMP has been prepared as part of the EMS using JH documentation as the basis for some documents (see Figure 5-2).

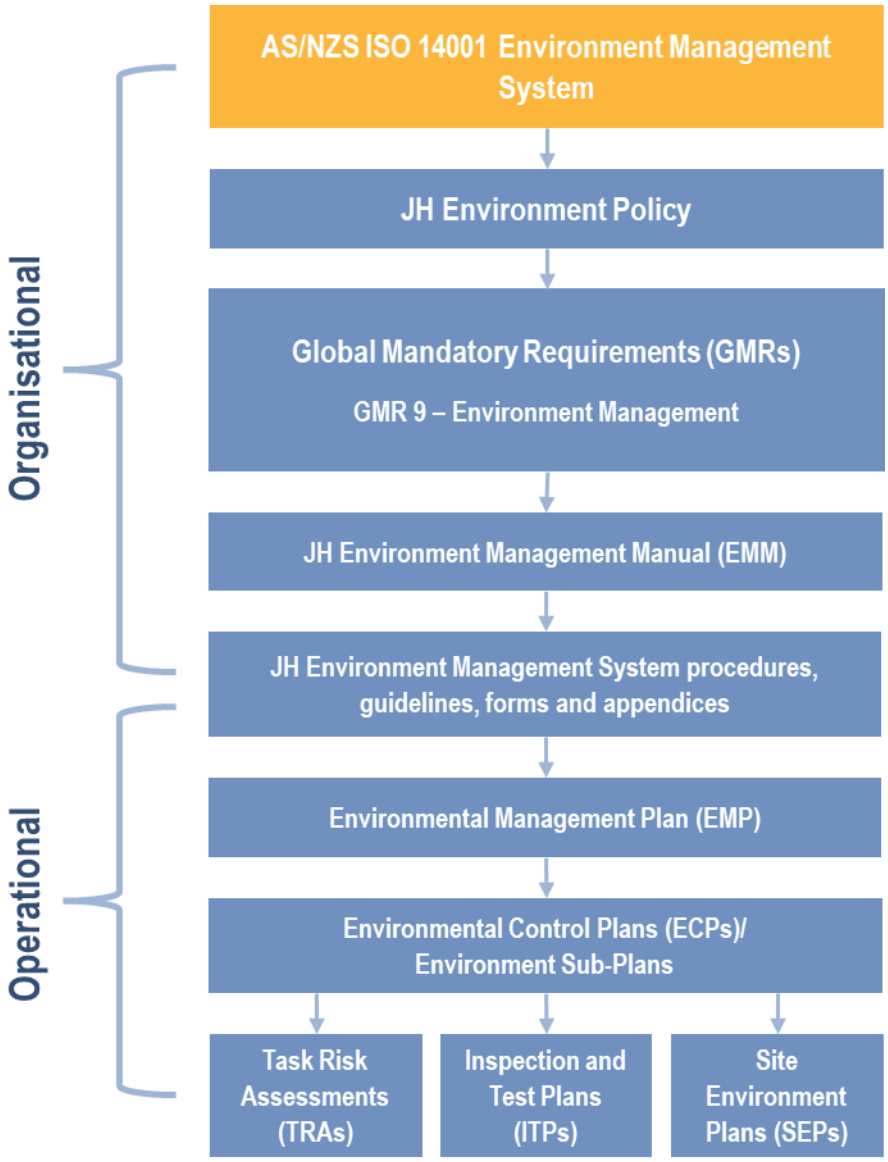


Figure 5-2 **EMS Structure**

The EMS contains policies, standards, manuals, plans, procedures, processes, and other documents that enable the Project to achieve its objectives through planned and controlled processes.

5.2 Construction Environmental Management Plan

5.2.1 Preparation and Availability of the CEMP

This CEMP has been prepared in accordance with the CoA, requirements of the *Environmental Management Plan Guideline - Guideline for Infrastructure Projects* (DPE, 2020) and Inland Rail Specifications. It incorporates all requirements of the EIS and Submissions Report documentation and all relevant performance outcomes, commitments, and mitigation measures to be implemented during construction of the Project. This CEMP establishes the system for implementation, monitoring and continuous improvement to minimise environmental impact from construction of the Project. The ER will endorse the CEMP, aspect specific Sub-plans and Monitoring Programs prior to submission to the Planning Secretary for approval prior to implementation.

The supporting appendices prepared under the CEMP comprise:

- Appendix A1 - Legal Requirements
- Appendix A2 - Environmental Aspects and Impacts
- Appendix A3 – Environmental Risk Assessment Matrix
- Appendix A4 – Environment, Sustainability and Climate Policy
- Appendix A5 – Sensitive Area Plan Template
- Appendix A6 - Environmental Incident Procedure
- Appendix A7 - Document Register
- Appendix A8 - Ancillary Facilities Maps
- Appendix A9 - Minor Ancillary Facilities Assessment Checklist
- Appendix A10 – Unexpected and Incidental Finds Protocol and Procedure.
- Appendix A11 – Workforce Code of Conduct

The CEMP is to be displayed on the Project website and will be available electronically at the site office(s) and communicated to staff and other interested parties via inductions and ongoing awareness programs. Confidential information, which may include the location of threatened species, Aboriginal objects or places and personnel contact details, will be removed from all documents provided or made available to the public.

5.2.2 Project Environmental Management Sub-Plans and Monitoring Programs

This CEMP sits within a suite of other documents, procedures and processes that form the Project EMS. Figure 5-3 demonstrates the relationship between this CEMP and the CoA, UMMS, Sub-Plans, and other EMS documentation.

Other Project plans that the CEMP interfaces with include the Project Management Plan, Construction Management Plan, Design Management Plan, Quality Management Plan, Safety Management Plan, Sustainability Management Plan, and other environmental management documents (e.g. plans, protocols, strategies, reports, and programs) to ensure the Project CoA and UMMs are implemented.

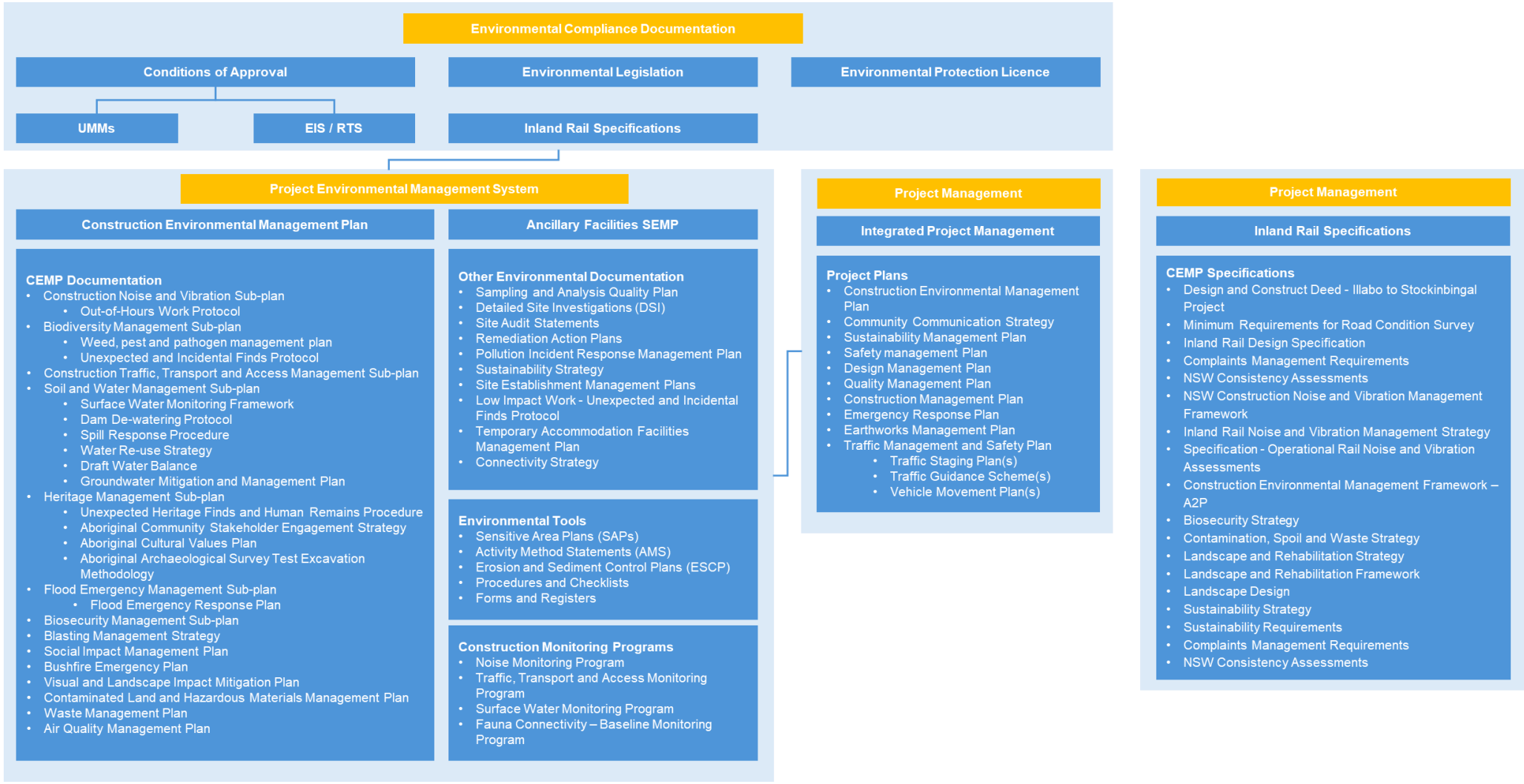


Figure 5-3 CEMP and Project EMS

5.2.3 Erosion and Sediment Control Plans

Erosion and Sediment Control Plans (ESCPs) are planning documents for managing erosion and sedimentation and show the site layout and the location of erosion and sediment control mitigation on-site. ESCPs will be prepared under the SWMSP in accordance with CoA C22. They cover all construction stages from initial vegetation clearing through to rehabilitation when erosion and sediment control are no longer required and are removed. ESCPs are to be developed by persons with demonstrated skills and experience in preparing ESCPs in accordance with the 'Blue Book' guidelines (Landcom, 2004) and implemented during construction.

ESCPs may be produced in conjunction with an Activity Method Statement (AMS) to provide more detailed site-specific environmental mitigation measures and will be developed before commencing activities within each catchment for the Project.

The requirements of the Infrastructure Sustainability Council (ISC) Credit Dis-1 (receiving water quality) Level 2 construction requirements should also be included when preparing ESCP's. These requirements are:

- Measures to minimise adverse impacts to receiving water environmental values during construction and operation have been identified and implemented
- Monitoring of water discharges and receiving waters is undertaken at appropriate intervals and at times of discharge during construction
- Monitoring and modelling of water discharges and receiving waters demonstrates no adverse impact on receiving water environmental values
- The infrastructure does not increase peak stormwater flows for rainfall events of up to a 1.5-year average recurrence interval event discharge.

Refer to the SWMSP for further details and information of ESCPs.

5.2.4 Activity Method Statements

AMS will be prepared to manage and control high risk activities that have the potential to negatively impact on the environment. AMS will be prepared by the Project Environment and Sustainability Manager (or delegate) and delivered in the field by the construction team.

AMS incorporate appropriate mitigation measures and controls, including those identified in the relevant Sub-plans. They also identify key activity specific procedures. AMS are specifically designed to communicate requirements, actions, processes and controls to construction personnel using plans, diagrams and simple written instructions.

As a minimum, AMS will be prepared for the activities:

- Low impact work
- Activities with high environmental risk
- Clearing and grubbing
- Topsoil stripping and earthworks, including handling, storage and disposal of excavated materials
- Service and utility relocation works
- Working in or near waterways
- Construction Site De-watering

The AMS will include at least the following elements:

- Description of the work activity, including any plant and equipment to be used;

- Outline of the sequence of tasks for the activity, including interfaces with other construction activities and relevant plans (such as prevention of impact to groundwater quality, Erosion and Sediment Control Plans and sensitive areas) and state who is responsible for the activity;
- Identification of and a map indicating the locations of any environmental and/or socially sensitive areas, sites or places;
- Identification of potential environmental risks/impacts due to the work activity, including risks/impacts associated with wet weather events;
- Mitigation measures to reduce the identified environmental risk, including assigned responsibilities to site management personnel;
- Process for assessing and reporting on the performance of the implemented mitigation measures;
- Any safeguards resulting from consultation with relevant Authorities, residents and other stakeholders, where appropriate; and
- Details of key contacts who have the authority to stop work in the event of an incident, and procedures for emergency and incident response management.

An AMS will be developed in consultation with relevant site management personnel to ensure that all issues are addressed, methods and activities are practical and all personnel are aware of their commitments and responsibilities. AMS will be reviewed periodically to ensure its effectiveness and proper implementation and incorporate any improvements or changes identified into subsequent revisions. AMS may also be developed progressively to suit the construction stages.

All construction personnel and sub-contractors undertaking a task governed by an AMS must participate in tool box talks on the AMS and acknowledge that they have read and understood their obligations by signing an attendance record prior to commencing work.

Regular monitoring, inspections and auditing of compliance with the AMS will be undertaken by Project management, quality and environmental personnel, as outlined in Section 9 to ensure that all controls are being followed and properly implemented, to ensure its effectiveness and that any non-conformances are recorded and corrective actions implemented. Where appropriate, improvements will be incorporated following reviews as described in Section 9.7.

5.2.5 Sensitive Area Plan

Sensitive Area Plan (SAP) provide a simple but effective tool to identify key risk areas, assist in the planning and management of specific areas and promote ongoing communication with construction personnel for the duration of the Project. They consist of a series of plans that clearly show the overarching environmental and socially sensitive areas within and surrounding the Project footprint, including but not limited to vegetation, heritage, sensitive receivers, waterways and contamination. SAP will be developed based on sensitive land use, ecological and other environmental data incorporated from publicly available sources, the EIS and / or as supplemented by technical investigations and studies undertaken as required by this CEMP and associated Sub-Plans (e.g. contamination risk).

The SAP template for the Project is provided in Appendix A5. If any new environmental constraints or sensitive areas are identified during construction, the SAP will be updated, however they will be document controlled separately to this CEMP or other applicable Sub-Plans. Therefore, an update to the SAPs will not require this CEMP or Sub-Plans to be updated. The SAP will also be updated if required during scheduled CEMP reviews.

To assist pre-construction planning and on-site construction management, site constraints associated with environmentally sensitive areas are consolidated on the Project's Environmental Portal, a GIS based mapping platform that shows the entire Project area. This functionality will enable Project personnel to

access the GIS in real time while in the field, further assisting Project planning and compliance. Hard copies of these data sets will be made available on request to field staff as hard copies.

The SAP will also be utilised to communicate site-specific sensitivities with regards to environment and community risk. The SAP will be developed for specific site areas and provided to site management staff (e.g. Forepersons) and Area Managers, to ensure awareness of site constraints is understood.

5.2.6 Environmental system, procedures, forms and other documents

The EMS procedures, forms and other documents provide instructions and records related to both environmental and non-environmental activities throughout the Project. An indicative list of forms and checklists (i.e. these may be subject to change) to be used to monitor environmental performance is provided in Table 5-1.

Specific procedures will be developed in accordance with the requirements for the Project. Where applicable, existing contractor procedures and work instructions will be applied or amended for use on the Project. These procedures are listed within the relevant sections of this CEMP.

Table 5-1 Indicative Project Forms and Checklists

Record Type	Description
Environmental Incident Report Form	Used on an as-needs basis when an environmental incident occurs.
Environmental Site Inspection Checklist	Used at least once a week during environmental site inspections.
Water discharge permit	Used prior to the transfer of, or discharge of water from sediment retention basins, excavations or holding tanks.
Noise Monitoring Record Sheet	If required, used to record noise levels over a 15-minute monitoring duration for construction activities to ensure they comply with noise criteria.
Monthly Register for Waste Materials	Used monthly to track waste materials used on site including hazardous material (i.e. asbestos).
Equipment Maintenance and Calibration Record Register	Used on an as-needs basis when equipment is maintained or calibrated.
Water Monitoring Record Register	Used after water discharge to record water quality and approvals.
Rainfall Monitoring Record	Used after rainfall events.
Health, Safety and Environmental Report	Used monthly to report on environmental performance.
Environmental Incident Register	Used on an as-needs basis when an environmental incident occurs.
Environment Design Review Checklist	Used by the design team to ensure all environmental design requirements are complied with.
Subcontractor Energy Usage Report (if required)	Used monthly to report on subcontractor usage
Subcontractor performance review (if required)	Used to evaluate the overall performance on each subcontractor, including environmental performance.
Pre- and post-clearing assessment checklist	The pre-clearing records will be used prior to the trimming and/or removal of any vegetation. The post-clearing records will be used to demonstrate compliance with the approval and to inform the need for any further habitat replacement

5.2.7 Global Mandatory Requirements

JHG's Global Mandatory Requirements (GMRs) outline the control strategies and minimum standards for managing, and where possible, eliminating key risks across the Project. GMRs which are relevant to the

CEMP and will be implemented include GMR 9 – Environmental Management. This GMR has been developed to:

- Minimise the impact of our activities on the environment and communities.
- Reduce our use of natural resources and energy, and the generation of waste.
- Be a reliable and trustworthy partner to our customers, dedicated to providing environmentally sustainable solutions throughout our diverse business.

The GMR's form part of the Project EMS and are to be used as tools in development of planning documents for management of environmental risks / impacts. Requirements of the GMR are integrated into this CEMP and the relevant sub-plans.

5.2.8 Sustainability Requirements

John Holland will develop and implement a Construction Sustainability Management Plan (SuMP) in accordance with the Inland Rail Sustainability Strategy and Sustainability Requirements documentation. The SuMP will provide the framework through which the Project will meet its sustainability targets under Infrastructure Sustainability Council (ISC). The SuMP illustrates the extent to which Project plans integrate sustainability into governance, design, procurement, construction, and other functional areas to optimise value for money outcomes over the Project's lifecycle. The SuMP will be compliant with:

- Project Approvals
- Inland Rail Sustainability Strategy (0-0000-900-ESS-00-RP-0003)
- Inland Rail Sustainability Requirements (0-0000-900-ESS-00-SP-0001)
- Relevant sustainability requirements specified in the Inland Rail I2S Deed.
- ISC IS Technical Manual v1.2

In accordance with NSW CoA Condition E148 the Project must achieve a minimum ‘excellent’ rating for both ‘Design’ and ‘As built’ phases, under the Infrastructure Sustainability Council infrastructure rating tool, or through the use of an equivalent process or an equivalent level of performance using a demonstrated equivalent rating tool. Evidence that these ratings have been achieved must be published on the website:

- within 12 months of commencing Construction for the 'Design’ rating; and
- within 12 months of commencing of Operation for the 'As built’ rating.

The JH reporting software, Project Pack Webb (PPW) will be used to administer the requirements of the National Greenhouse Emissions Reporting (NGER) Act.

6 Planning

6.1 EIS Environmental Risk Assessment

An environmental risk analysis, including a likelihood and consequence analysis, was carried out in development of the EIS (EIS, Appendix G) for each environmental issue identified for the project. The environmental risk analysis was undertaken in accordance with the principles of the *Australian and New Zealand standard AS/NZS ISO 31000:2009 Risk Management – Principles and Guidelines.*

The EIS environmental risk assessment has informed the development of this CEMP and associated Sub-Plans as well as the CEMP's environmental risk assessment and the Project Environmental Aspects and Impacts Register (refer Appendix A2)

6.2 Project Risk Assessment Process

6.2.1 Risk Management Procedure

The Project's adopted Safety, Quality and Environment (SQE) Risk Assessment procedure involves preparing a series of progressively more in-depth risk assessments and method statements for Project activities including:

- Project Workplace Risk Assessment (WRA): Strategic risk assessment conducted by all Projects to gauge SQE risks and optimise their management by applying the 'hierarchy of controls'. Must be informed by Pre-Tender and Contract Award SQE Reviews. Must engage relevant subject matter experts.
- Activity Method Statement (AMS): A method statement and risk assessment for individual work elements in the WRA, details the specific methodology to be employed, the associated SQE risks and their controls. Must be informed by the WRA, must engage relevant subject matter experts and Client Representative
- Task Risk Assessment (TRA): A method statement and risk assessment for individual tasks in the AMS, details the specific methodology to be employed, the associated SQE risks and their controls. Must be informed by the AMS and be facilitated by supervision with the participation of the workforce. Must be completed prior to work commencing.

Project WRA, AMSs and TRAs are pivotal to the management of all activities during delivery. They allow operational controls to be developed and implemented, case by case, for all the different workplaces, activities and tasks that are encountered in the contracting industry. Project WRAs, AMSs and TRAs are owned by Project Management, the Construction Manager, Area Managers, supervisory staff such as Forepersons, and the workforce.

Project subject matter experts act as advisors during the preparation of these documents ensuring that information from the CEMP and relevant Projects Sub-Plans are suitably incorporated and acted upon. Implementation of the Managing SQE Risk Procedure by the Project team, will allow the actions identified in relation to risks and opportunities, and the achievement of environmental objectives, to be incorporated and used to:

- Establish operating criteria
- Implement control, in accordance with the operating criteria.

The Project risk management process is maintained to *AS/NZS ISO 31000:2018 Risk Management – Principals and Guidelines*. Triggers for ongoing analysis of key environmental risks arising from Project activities and contained in the Environmental Aspects and Impacts Register (refer Appendix A2) are described in Section 6.3 of this CEMP. As part of the guideline referenced above, JHG undertake monthly reviews of risks and opportunities for improvement. These reviews are described further in the following sections.

6.2.2 CEMP Risk Assessment Matrix

An environmental risk assessment matrix has been included in Appendix A3. The matrix identifies the environmental aspects and potential environmental impacts of the activities that John Holland will undertake on the Project using the information provided in the EIS, Section 6.3 of this CEMP, associated management plans and experience on other similar projects.

For each potential environmental impact, an initial risk rating is calculated using initial risk ratings and residual risk ratings. Residual risk ratings are calculated following the consideration of control measures to be informed by management plans. More information about the methodology associated with the risk matrix is included in Appendix A3.

6.2.3 Ongoing Risk Analysis

The Project Environment and Sustainability Manager is responsible for ensuring that environmental risks associated with the Project are identified and included in the register of Environmental Aspects and Impacts (Appendix A2), included in the CEMP Risk Assessment Matrix (Appendix A3) and appropriate mitigation measures are identified and implemented throughout construction.

The Project Environment and Sustainability Manager (and/or delegate) will review and, if necessary, update the register of Environmental Aspects and Impacts and CEMP Risk Assessment Matrix, including, as a minimum, when:

- A new risk has been identified
- There is a change in work systems, materials, equipment, practices or procedures on site
- There is a reportable incident
- New information about an environmental risk becomes available or where personnel raise concerns about the proposed management of an environmental risk
- At regularly scheduled times, including during CEMP Annual reviews, and at quarterly management review meetings.

Where new risks are identified, these will be included in the risk assessment matrix, assessed and control measures put in place to eliminate or minimise the level of risk. Monitoring and review of the effectiveness of control measures will be carried out during weekly environmental inspections and may include consultation with site personnel involved in managing the identified risks. Where required, the CEMP will also be reviewed and updated as required in accordance with the CEMP revision process outlined in Section 9.7.

In addition to the process outlined above, a formal environmental risk assessment workshop will take place prior to construction that will include representatives from JHG and IRPL. The objective of this workshop is to gain a shared understanding of the construction risks associated with the delivery of the Project and confirm effective controls as outlined in the CEMP and sub-plans.

The CEMP and sub-plans will be updated based on any findings or improvements from this workshop as well as any Environmental Events, lessons learned, inspections and audits (internal, IRPL and regulator) where required.

6.3 Environmental Aspects and Impacts

Appendix A2 contains a list of environmental activities and impacts attributable to the Project. This will be updated during construction following risk reviews as described below.

Where relevant, the requirements from the CoA and UMMs, Inland Rail Specifications, EPL and the ISC will be incorporated into the environmental risk assessment, particularly in developing the agreed activity specific site controls.

A summary of potential environmental aspects and impacts associated with construction of the Project identified within the Environmental Assessment Documentation is presented in Table 6-1.

Table 6-1 Potential environmental impacts associated with Construction

Environmental Aspect	Potential Impact / Risk
Noise and Vibration	• Noise impacts on sensitive receivers from construction activities, particularly during work outside the *Interim Construction Noise Guideline* (ICNG) (2009) standard working hours. • Noise impacts on sensitive receivers from construction traffic. • Human comfort vibration (amenity) impacts on sensitive receivers as a result of works close to receivers. • Potential for construction noise to exceed the relevant criteria at numerous receivers along the proposal site. • Potential for blasting overpressure to exceed the relevant criteria at receivers at multiple locations. • Exceedances of noise criteria predicted at residential receivers when work is undertaken outside the NSW EPA's recommended standard hours, including potential for sleep disturbance impacts.
Biodiversity	• Permanent removal of about 73 hectares (ha) of native vegetation, resulting in loss of fauna habitat, habitat fragmentation and loss of connectivity. This includes about 43 ha of threatened ecological communities listed under the *Biodiversity Conservation Act 2016* (NSW) (BC Act) and/or the *Environment Protection and Biodiversity Conservation Act 1999 (Cth)* (EPBC Act). • Impacts on known or potential habitat for two threatened fauna species (superb parrot and squirrel glider and Little Eagle) under the Biodiversity Conservation Act 2016 (BC Act). • Impacts on aquatic biodiversity as a result of works at watercourses and through changes to flow regimes, including through the removal of 10 farm dams. • Direct impacts on listed threatened flora species and endangered terrestrial ecological populations and communities. • Impacts on potential habitat for listed threatened fauna species. • Indirect impacts on fauna species due to increased dust, sedimentation, and erosion, noise, light and contamination pollution. • Native fauna mortality from vehicle strikes. • Potential impacts on groundwater dependent ecosystems. • 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. • Water quality impacts and changes to flow regimes, including through the removal of farm dams, affect aquatic ecosystems.
Biosecurity	• Increased impacts from pest plants and animals during construction from movement of vehicles, machinery and materials in and out of site. • The movement of construction machinery and materials introduces biosecurity risks, including the spread of weeds.
Traffic, Transport and Access	• Temporary impacts on traffic and access, and an increase in heavy and light vehicle movements on the local road network. • Construction traffic impacts, including temporary delays to local and regional traffic due to road closures and diversions. • Impacts to condition of rural roads due to construction traffic. • Impacts on access to private properties.

Environmental Aspect	Potential Impact / Risk
	• Changes to road network performance due to additional construction vehicles. • Reduced pedestrian and cyclist access. • Impact of construction work on existing rail operations during the tie-in to the north and south ends of the project area. • Realignment of Burley Griffin Way resulting in detours and change to traffic control. • Impacts to bus routes and services as a result of increased road use and diversions due to road realignment. • Impacts to livestock highways as a result of increased construction traffic. • Increase to road use as a result of cumulative infrastructure projects in the vicinity of the project.
Soils	• Erosion as a result of the disturbance of soils during construction, particularly in soil landscapes characterised by dispersive soils, given their susceptibility to erosion. • Disturbance of soils, resulting in erosion of exposed soil and stockpiled materials, with associated water quality impacts and/or the production and mobilisation of sulfuric acid. • Disturbance of landforms during earthworks reducing the stability of landforms. • Potential to disturb contaminated soils during construction and mobilise contamination. • Potential for direct contact exposure by construction workers to soils associated with dumped materials and stockpiles or machine storage and maintenance.
Groundwater	• Extraction of groundwater may cause drawdown of the groundwater table, impacting sub-surface flows and water availability. • 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. • Changes to soil moisture content causing compression or settlement. • Degradation of water quality through the movement of potentially existing contamination plumes within the groundwater environment. • Changes to groundwater flow paths and surface infiltration are caused due to compaction and settlements. • Construction dewatering resulting in impact to sensitive receptors.
Water Quality	• Increased sediment loads during rainfall events and from discharge of sediment-laden wastewater. • Increased sediment loads due to changes in surface water flow from the presence of construction infrastructure. • Erosion and sediment transport downstream due to works in watercourses. • Impacts on water quality from contamination from spills and leaks during construction. • Contamination of groundwater from construction activities.
Heritage - Aboriginal	• Direct impacts on seven of the 22 Aboriginal heritage items/sites located within the proposal site during construction. Potential to indirectly impact three Aboriginal sites located outside the proposal site, as a result of changes to the visual setting, if appropriate management measures are not implemented. There would be direct impact on potential archaeological deposits, including areas that could not be surveyed due to access restrictions. Potential impacts on any unexpected finds. • Potential impacts on registered Aboriginal heritage items/sites in the proposal site. • Impacts on unrecorded Aboriginal sites and/or areas of archaeological sensitivity or cultural value. • Impacts on areas predicted to have moderate to high archaeological potential. • Indirect impacts on registered Aboriginal sites outside the proposal site by the movement of vehicles and/or construction machinery. • Indirect impacts to Aboriginal heritage items from construction of the project such as visual setting or settlement.

Environmental Aspect	Potential Impact / Risk
Heritage – non-Aboriginal	• Potential indirect impacts on two locally listed heritage sites, the Stockinbingal Railway Station and Stockinbingal Heritage Conservation Area. These heritage sites are located within the proposal site, however construction activity at these locations would be minimal and no direct impacts would occur to the heritage sites. • Potential for indirect impacts on the Billabong Creek rail underbridge (which is not currently heritage listed but was constructed in 1878), including visual impacts. • Disturbance of known or unidentified items or places of non-Aboriginal heritage significance. • Impacts to heritage items from vibration during construction. • Design that detracts from the heritage significance of nearby items. • Impacts on listed heritage items or items of heritage values due to construction.
Hydrology and Flooding	• 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. • Changes to surface water flows and geomorphological conditions due to the construction of bridges and culverts in flowing watercourses. Impact of flooding on unprotected areas during construction resulting in washouts or erosion. • Changes to overland flows due to the presence of construction infrastructure. • Sedimentation and changes to geomorphology in watercourses.
Air Quality and Greenhouse Gas	• Generation of dust during ground disturbance and excavation, and as a result of the movement of vehicles equipment and machinery. • One construction site has medium-to-high risk of dust soiling and human health impacts for earthworks and other construction activities. Three haulage routes have medium-to-high risk of human health impacts for trackout activities. • Emissions from vehicles or plant during construction. • Generation of dust during construction (from exposed soil/stockpiles, excavation and vehicle movements) and impacts on sensitive receivers. • Odours/emissions from disturbance of contaminated soils or other sources such as asphalt laying during road modification works. • Fugitive emissions (e.g. VOCs) from fuel/chemicals storage and handling.
Visual Amenity and Landscape Character	• Visual impacts in the vicinity of work areas and from identified viewpoints as a result of visible construction elements, such as works, machinery and equipment, stockpiles, compounds and partially constructed structures. • Lighting impacts during construction as a result of night-time construction activities. • Adverse impacts on landscape character during construction, particularly in greenfield areas.
Socio-economic	• Social impacts (including dislocation, stress and uncertainty), for property owners/occupants and local communities, as a result of the proposal's land requirements and potential property impacts. • Beneficial impacts during construction, including employment (an estimated workforce of up to 425 people at peak periods), training opportunities, and flow-on local and regional employment and economic benefits. • Impacts on local amenity in some areas, mainly as a result of potential dust, noise and visual impacts. • Impacts associated with the inflow of the workforce into the local area and workforce accommodation camp (refer to Appendix I for further detail). • Potential constraint in local short-term accommodation restricting access for other community needs. • Restriction on people's ability to move around their community as a result of traffic restrictions and delays at level crossings.

Environmental Aspect	Potential Impact / Risk
	• Restricted access to community services and facilities due to increased demand from the construction workforce. • Impeded access across the rail corridor for emergency services, specifically during times of high bushfire risk. • Changes in rural amenity and character, including adverse changes to existing visual amenity for three residential sensitive receivers in the local study area. • Loss of local and regional agricultural production felt by individual landowners and regional producers. • Adverse impact on agricultural businesses from land acquisition leading to severance.
Land use and property	• In addition to the proposal's permanent land requirements, about 154 ha would be required during construction only. • The proposal's land requirements would have the potential to partially affect a property where part of a site is required, requiring adjustments to/relocation of facilities to other parts of the site, or fully affect a property if the entire site on which a property is located is required. • The majority of land affected by the proposal is currently used for agriculture. There would be a change in use of land temporarily occupied for construction—from existing land uses to construction work site, with the potential for temporary land-use impacts, mainly to agricultural/farming practices. • Effects on access to and within properties as a result of changes to private access roads and internal access arrangements. • Indirect impacts on agricultural land use/production and livestock from construction activities, including impacts from changes to access, noise and air pollution. • Temporary changes to land use as a result of the proposal's land requirements during construction • Effects on access to and along travelling stock reserves. • Impacts on agricultural land use from construction activities including impacts from reduced access, noise and air pollution. • Impacts on land use as a result of property acquisition. • Impacts on other infrastructure during construction including utilities and existing rail lines.
Waste	• Indicatively, the proposal would generate about 1.5 million cubic metres (m3) of spoil, which would be excavated and reused as far as practicable. • Other waste material would include green waste, sleepers, rail tracks, formation material, fencing and general soil waste. • Generation of excess spoil that cannot be reused onsite (unsuitable for reuse or • insufficient space) and needs to be disposed of. • Inappropriate management of waste generated during construction, resulting in environmental, health and amenity impacts, including contamination, water quality impacts, odour and dust. • Inappropriate management of waste generated during construction, resulting in excessive waste being directed to landfill.
Climate Change Risk	• As part of the climate change risk assessment process for the proposal, impacts to rail structure and human health and safety was conducted using variables: extreme rainfall/flood events, extreme heat, bushfire events, storm events and wind, and mean rainfall reduction/drought. Due to previous events experienced in and around the rail corridor, and observed and projected trends, risks to rail infrastructure, by way of physical damage, delays in schedule and potential risks to human health and safety are likely.
Hazardous Materials and Contamination	• Potential for environmental damage resulting from a bushfire passing through the site (e.g. explosion of fuel storages/tanks, vehicles and machinery). • Potential health impacts from dust, asbestos, respirable silica and other airborne contaminants.

Environmental Aspect	Potential Impact / Risk
Bushfire	• Ignition of on ground fuels causing a fire from hot works or equipment • Combustion of stockpiled material • Reduced access/blocked access to fire trails • Confusion during a fire event for the correct access point into a fire trail • Combustion of materials/chemicals
Sustainability	• Sustainability initiatives, particularly in relation to energy consumption and savings throughout the project lifecycle. The sustainability opportunities identified during the feasibility and detailed design phases will be implemented during construction and/or operation phases.
Health and Safety	• Introduction of potential ignition sources and fuel sources during construction works could increase bushfire risks. If inadequately managed, the storage and handling of dangerous goods and hazardous materials on construction sites could cause leaks and spills, with resultant contamination and health impacts. • Potential rupture of underground utilities during excavation or collision of plant and equipment with aboveground services. • Public and worker health and safety risks during construction. • Impacts to emergency vehicle movements from disruption of traffic and access.
Cumulative Impacts	• The cumulative impacts have been an important consideration given the potential overlap of construction with other projects in the vicinity of the proposal—specifically, the other adjoining Inland Rail projects. The cumulative impacts are associated with the two adjacent sections of Inland Rail—Stockinbingal to Parkes (to the north) and Albury to Illabo (to the south). Given the proximity and timing of the other Inland Rail projects, the primary impacts are traffic and access during construction, heritage, social and economic impacts associated with workforce and accommodation requirements, and biodiversity.

6.4 Relevant Legislation and Guidelines

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

6.4.1 Legislation

A register of legal and other requirements for the Project is contained in Appendix A1. This register is maintained as a checklist. This register will be reviewed at regular intervals, such as during management reviews, and updated with any applicable changes. Any changes made to the legal requirements register will be communicated to the wider Project team, including subcontractors where necessary through toolbox talks, specific training and other methods detailed in Section 7.4 of this CEMP.

6.4.2 Approvals, permits and licenses

Approvals permits and licenses have and/or will be obtained for the Project. Appendix A1 contains a register of relevant environmental approvals, permits and licenses. The register will be maintained by the Project Environment and Sustainability Manager (or delegate) and will be reviewed prior to the commencement of construction and/or stages of construction, and at regular intervals during construction and, at least annually as part of the management review.

In addition to the Project approvals described in Section 3.2. The following additional licences, approvals or exemptions will be obtained by John Holland:

- EPL No. (**to be updated when provided in the next revision**) for the Project under Schedule 1 of the *Protection of the Environment Operations Act 1997* (POEO Act) for 'road construction'.
- Road Occupancy Licences (ROLs) and s138 approvals under Section 138 of the *Roads Act 1993*
- Exemptions to allow hot works to be undertaken on Total Fire Ban days as detailed under Section 99 of the *Rural Fires Act 1997*
- Specific Resource Recovery Exemptions, if required
- To undertake prescribed activities involving environmentally hazardous chemicals or declared chemical wastes, as detailed under s28 of *Environmentally Hazardous Chemicals Act 1985*
- For construction or use of 'work' for purposes including the taking and using of water, as detailed under S21B of the *Water Act 1912.*

At least 5 working days prior to the commencement of an activity requiring an approval, licence and/or permit from an appropriate authority, John Holland will provide to Inland Rail evidence of the receipt of the approval, licence and/or permit from the relevant authority for release of the Hold Point. Hold point are discussed further in Section 9.6.3.

All necessary licences, permits and approvals required for the development of the Project will be obtained and maintained as required throughout construction. No condition of the Infrastructure Approval removes the obligation for Inland Rail or John Holland to obtain, renew or comply with such necessary licences, permits or approvals except as provided under Section 5.23 of the EP&A Act.

6.4.3 Guidelines and Standards

The main guidelines, specifications, and policy documents relevant to this CEMP are provided below. It's noted that this is list is not exhaustive and further guidelines and standards for each aspect are provided in each sub-plan.

- *Environmental Management Plan Guideline – Guideline for Infrastructure Projects* (DPE, April 2020)
- *AS/NZS ISO 14001: Environmental Management Systems*
- *AS/NZS ISO 19011:2014 - Guidelines for Auditing Management Systems*
- *AS/NZS 4801: Safety Management Systems.*
- *ISO 9001: Quality Management Systems*
- *AS 4282-2019 Control of the obtrusive effects of outdoor lighting and*
- *AS/NZ 1158 – Lighting for Roads and Public Spaces*
- *Riverina Regional Strategic Weed Management Plan 2023-2027 (LLS, 2022)*
- *Riverina Regional Strategic Pest Animal Management Plan 2024-2028 (LLS, 2024)*
- *Hygiene protocol for the control of disease in frogs (DECCW, 2008).*
- *Matters of National Environmental Significance – Significant Impact Guidelines 1.1 (Department of the Environment, 2013)*
- *Australian Standard AS 4373 Pruning of Amenity Trees*
- *Australian Standard 4970 – 2009 Protection of Trees*

- *NSW WorkCover Code of Practice for the Amenity Tree Industry (1998)*
- *IS Technical Manual version 1.2 (ISC, 2018)*
- *NSW Aquifer Interference Policy (NSW Office of Water, 2012)*
- *Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC and ARMCANZ 2000).*
- *Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2018 (ANZG 2018)*
- *Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (NSW EPA, 2004)*
- *Best Practice Erosion and Sediment Control (IECA, 2008)*
- *Storage and Handling of Dangerous Goods Code of Practice (WorkCover NSW, 2005)*
- *NSW Groundwater Policy Framework, including the NSW Groundwater Quality Protection Policy (NSW DLWC, 1998), the NSW Groundwater Dependent Ecosystems Policy (NSW DLWC, 2002), the NSW Groundwater Quantity Management Policy (NSW DLWC, undated).*
- *Code of practice for archaeological investigation of Aboriginal objects in NSW (DECCW, 2010)*
- *Aboriginal cultural heritage consultation requirements for proponents (DECCW, 2010)*
- *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW, (OEH, 2011)*
- *Interim Construction Noise Guideline (Department of Environment and Climate Change (DECC), NSW, 2009) (ICNG)*
- *German Standard DIN 4150-3: Structural Vibration – effects of vibration on structures (GS DIN 4150-3)*
- *British Standard BS 7385.2:1993—Evaluation and Measurement for Vibration in Buildings: Part 2—Guide to damage levels from ground borne vibration (British Standards Institute, 1993) (BS 7385.2)*
- *British Standard BS 5228.2:2009—Code of Practice for noise and vibration control on construction and open sites: Part 2 Vibration (British Standards Institute, 2009) (BS 5228.2)*
- *British Standard BS 6472:2008—Guide to Evaluation of Human Exposure to Vibration in Buildings (1 Hz to 80 Hz) (British Standards Institute, 2008) (BS 6472)*
- *Technical Basis for Guidelines to Minimise Annoyance Due to Blasting Overpressure and Ground Vibration (ANZECC 1990) or other limit set by conditions of consent AS 2187: Part 2-2006 'Explosives - Storage and Use - Part 2: Use of Explosives'*
- *Noise Policy for Industry (NSW Environmental Protection Authority (NSW EPA), 2017) (NPfI)*
- *Rail Infrastructure Noise Guideline (NSW EPA, 2013)*
- *Draft Construction Noise Guideline (NSW EPA, 2020)*
- *Why do Fish Need to Cross The Road? Fish Passage Requirements for Waterway Crossings (Fairfull and Witheridge, 2003)*
- *Fishnote – Policy and Guidelines for Fish Friendly Waterway Crossings (NSW Fisheries, 2003)*
- *Guidelines for vegetation management plans on waterfront land (NSW Office of Water, 2012*
- *Guidelines for controlled activities on waterfront land – Riparian Corridors (NRAR, 2018)*
- *Controlled activities on waterfront land – Guidelines for watercourse crossings on waterfront land (NSW Office of Water, 2013)*

- *Policy and Guidelines for Fish Habitat Conservation and Management (DPI Fisheries, 2013)*
- *Approved Methods for Modelling and Assessment of Air Pollutants in NSW (NSW EPA, 2022)*
- *Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (NSW EPA, 2022)*
- *Australian Standard (AS 4482.1-2005) Guide to the sampling and investigation of potentially contaminated soil.*
- *Managing asbestos in or on soil (SafeWork NSW, 2014)*
- *NSW EPA (2014) Waste Classification Guidelines*
- *NSW EPA (2017) Contaminated Sites: Guidelines for the NSW Site Auditor Scheme (3rd Edition)*
- *How to safely remove asbestos – Code of Practice (Safe work Australia, July 2020).*
- *NSW EPA (2022) Sample design guidelines*
- *Cootamundra Floodplain Risk Management Study and Plan, Cootamundra-Gundagai Regional Council, June 2023*
- *Junee Local Flood Emergency Sub Plan – Junee Shire Flood Emergency Sub Plan, March 2024, NSW State Emergency Service 2024*
- *Flood Risk Management Manual: The policy and manual for the management of flood liable land, Department of Planning & Environment (DP&E) 2023*
- *Australian Disaster Resilience Handbook 7: Managing the Floodplain: A Guide to Best Practice in Flood Risk Management in Australia, Australian Institute for Disaster Resilience (AIDR), on behalf of the Australian Government Attorney-General's Department 2017*

6.5 Environmental and Sustainability Objectives and Targets

The broader objectives of the I2S Project are defined in Section 1.4 of the EIS. The objectives of the Project are to:

- provide rail infrastructure that meets the Inland Rail specifications, to enable trains using the Inland Rail corridor to travel between Illabo and Stockinbingal, connecting with other sections of Inland Rail to the north and south
- improve reliability and travel times—reduction in total distance travelled by 23 km by avoiding the Bethungra Spiral.
- provide a rail link between Melbourne and Brisbane that is interoperable with train operations to Perth, Adelaide, and other locations on the standard gauge rail network, to serve future rail freight demand, and stimulate growth for inter-capital and regional and bulk rail freight
- increase productivity that would benefit consumers through lower freight transport costs
- provide a step-change improvement in rail service quality in the Melbourne to Brisbane corridor and deliver a freight rail service that is competitive with road
- improve road safety, ease congestion, and reduce environmental impacts by moving freight from road to rail
- bypass bottlenecks within the existing metropolitan rail networks, and free up train paths for other services along the coastal route
- act as an enabler for regional economic development along the Inland Rail corridor.

Furthermore, objectives of the broader Albury to Parks (A2P) Project (which incorporates the I2S Project) are defined in Section 1.3 of the *Inland Rail Specification: Construction Environmental Framework – A2P (0-0000-900-EEC-00-SP-0002_2)*. The objectives of the broader A2P Project are to:

- deliver the A2P Projects in accordance with ARTC's overall program and milestones
- demonstrate a high degree of collaboration and coordination with ARTC, its key stakeholders and other package contractors
- minimise impacts on the broader community during construction
- meet environmental and sustainability requirements
- demonstrate excellence in safety performance during delivery
- increase the rail sector's workforce skills development capacity and diversity
- enable innovation and opportunity
- deliver the infrastructure and outcomes in accordance with ARTC requirements
- demonstrate value for money

As a means of assessing environmental performance during construction of the I2S Project, site-specific environmental objectives and targets have been established. These objectives and targets have been developed with consideration of key performance outcomes for each key issue, and as specified in the EIS, Submissions Report and the UMMs. The objectives and targets are consistent with the Project Environmental and Sustainability Policies and will assist in monitoring whether the commitments of the policy are being met.

The performance of the Project will be monitored against the objectives and targets. Project performance monitoring will be documented in the Project construction monitoring, audit, and inspection reports and at least on an annual basis as part of the management review. Environmental objectives and targets for the Project are incorporated into relevant environmental management Sub-Plans and a summary is provided in Table 6-2.

Table 6-2 Environmental Objectives and Targets

Objective	Target	Measurement Tool
Construct in accordance with environmental approvals	• Full compliance with statutory approvals	Audits, construction compliance reporting, training records, management reviews
Compliance with all legal requirements	• No regulatory infringements (PINs or prosecutions) • No formal regulatory warning	Audits, construction compliance reporting, training records, management reviews
Implement a rigorous and comprehensive EMS that meets the requirements of AS/NZS ISO 14001	• Address non-conformances and corrective actions within specific timeframes	Audits, management reviews.
Engage with the affected and broader community, minimise complaints and respond to any complaints within a suitable timeframe	• Disseminate regular construction updates and other information using the Project website and through the use of other tools identified in the Construction Communication Strategy • Record and respond to complaints within timeframes specified in the Construction Communication Strategy	Review complaints register, construction compliance reporting, audits.
Continuously improve environmental performance	• Develop and maintain a program of ongoing environmental training • Capture and disseminate lessons learnt from environmental incidents to minimise repeat issues	Audits, construction compliance reporting, training records, management reviews, incident reports, complaints register, Updated CEMP and Sub-plans in

Objective	Target	Measurement Tool
	• Encourage and reward innovation and effort throughout the workforce • Regular review and update of the aspects and impacts register, legal register and environmental induction	response to incidents or Non-conformances, risk register.
Implement sustainability initiatives	• Adopt sustainability leadership and continual improvement • Integrate governance, environmental, social and economic considerations into decision-making processes within the Project • Enhance positive environmental, social and economic outcomes wherever possible, while minimising adverse impacts, resource use and embodied impacts • Achieve a minimum 'Excellent' ISC Design and As-Built Rating	Measure, monitor and report on the implementation of the sustainability initiatives. Utilise the ISC IS rating tool to evaluate the sustainability performance of the Project.

Sustainability objectives and targets are detailed in the project's Sustainability Management Plan (5-0019-220-PMA-00-PL-0044).

6.6 Environmental Performance Outcomes

Project design and construction will be prepared in consideration of the 'desired performance outcomes' provided in the Secretary's Environmental Assessment Requirements (SEARs). Project-specific performance outcomes are further defined in Chapter 27 (Table 27.7) of the EIS. Table 6-3 outlines the construction phase performance outcomes and provides a cross reference within this document or to other documents as appropriate to achieve the performance outcomes.

Table 6-3 Environmental Performance Outcomes

Item	Desired Performance Outcome	I2S Specific Environmental Performance Outcomes	Where addressed
Biodiversity	• The project design considers all feasible measures to avoid and minimise impacts on terrestrial and aquatic biodiversity. • Offsets and/or supplementary measures are assured which are equivalent to any remaining impacts of project construction and operation.	• The proposal is designed to minimise the surface footprint and impacts on biodiversity • The biodiversity outcome is consistent with the NSW Biodiversity Assessment Method 2020 • Offsets are provided in accordance with the NSW Biodiversity Offsets Scheme.	• Biodiversity Management Sub-plan
Protected and Sensitive Lands	• The project is designed, constructed and operated to avoid or minimise impacts on protected and sensitive lands. • The project is designed, constructed and operated to avoid or minimise future exposure to coastal hazards and processes.	• The proposal is designed to minimise the surface footprint and impacts on protected and sensitive lands.	• Biodiversity Management Sub-plan • Biosecurity Management Sub-plan
Traffic and Transport	• Network connectivity, safety and efficiency of the transport system in the vicinity of the project are managed to minimise impacts. • The safety of transport system customers is maintained. • Impacts on network capacity and the level of service are effectively managed. • Works are compatible with existing infrastructure and future transport corridors.	• The proposal provides for more efficient and productive freight rail operations • Impacts to traffic and transport are minimised • Motorist, pedestrian and cyclist safety will be maintained or improved • The proposal contributes to one of the desired outcomes of Inland Rail—to have reduced truck volumes on the road network, improving road safety	• Traffic, Transport and Access Management Sub-Plan

Item	Desired Performance Outcome	I2S Specific Environmental Performance Outcomes	Where addressed
		• The proposal is integrated with existing and future local and regional transport infrastructure and planning strategies.	
Flooding, Hydrology and Geomorphology	• The project minimises changes to the existing flood regime's impacts on property, public safety and the environment resulting from alteration of the water flow characteristics of watercourses and overland flow paths. • Where feasible, the project includes remedial measures to mitigate any adverse water flow impacts or flood safety risks caused by the existing rail infrastructure within the project area. • Construction and operation of the project avoids or minimises the risk of, and adverse impacts from, infrastructure flooding, flooding hazards, or flooding induced by infrastructure failure.	• Construction is undertaken in a manner that minimises the potential for adverse flooding impacts as far as practicable, through staging of works and the implementation of mitigation measures • Structures are designed and located such that flows are not significantly impeded • The proposal reduces the length of overtopping of the existing rail corridor • The proposal reduces or does not significantly increase the area subject to flooding.	• Flood Emergency Management Sub-plan • Soil and Water Management Sub-Plan
Water – Hydrology	• Long term impacts on surface water and groundwater hydrology (including drawdown, flow rates and volumes) are minimised. • The environmental values of nearby, connected and affected water sources, groundwater and dependent ecological systems including estuarine and marine water (if applicable) are maintained (where values are achieved) or improved and maintained (where values are not achieved). • Sustainable use of water resources.	• Opportunities to reuse water resources are considered during the design process • The use of water during construction is minimised.	• Soil and Water Management Sub-Plan
Water – Quality	• The project is designed, constructed and operated to protect the NSW Water Quality Objectives where they are currently being achieved, and contribute towards achievement of the Water Quality Objectives over time where they are currently not being achieved, including downstream of the	• The proposal is designed and constructed such that changes to water flows in watercourses are minimised as far as practicable • Water discharged does not exceed the ANZG 2018 guidelines for protection of aquatic ecosystems or water quality trigger values	• Soil and Water Management Sub-Plan

Item	Desired Performance Outcome	I2S Specific Environmental Performance Outcomes	Where addressed
	project to the extent of the project impact including estuarine and marine waters (if applicable).	• Impacts to water quality during construction and operation are minimised as far as practicable.	
Soils	• The environmental values of land, including soils, subsoils and landforms, are protected. • Risks arising from the disturbance and excavation of land and disposal of soil are minimised, including disturbance to acid sulfate soils and site contamination.	• Site-specific soil, subsoil and landform characteristics are taken into consideration during detailed design and construction • Any contamination is managed in accordance with relevant regulatory requirements.	• Soil and Water Management Sub-plan
Heritage	• The design, construction and operation of the project facilitates, to the greatest extent practicable, the long-term protection, conservation and management of the heritage and cultural significance of items of environmental heritage and Aboriginal objects and places. • The design, construction and operation of the project avoids or minimises impacts, to the greatest extent practicable, on the heritage significance of environmental heritage and Aboriginal objects and places.	• The proposal is designed to minimise the surface footprint as far as practicable • The design is sympathetic to the historic significance of the existing rail corridor and the heritage significance of surrounding listed heritage items and, where practicable, avoids and minimises impacts to heritage • Impacts on heritage are managed in accordance with relevant legislation, including the EP&A Act, the National Parks and Wildlife Act 1974 (NSW), and relevant guidelines.	• Heritage management Sub-plan

Noise and Vibration - Amenity	• Construction noise and vibration (including airborne noise, ground-borne noise and blasting) are effectively managed to minimise adverse impacts on acoustic amenity.
	• Increases in noise emissions and vibration affecting nearby properties and other sensitive receivers during operation of the project are effectively managed to protect the amenity and well-being of the community.
	• Increases in noise emissions and vibration affecting environmental heritage as defined in the Heritage Act 1977 during operation of the project are effectively managed.
		• The proposal minimises impacts to the local community as far as practicable by:
		  • controlling construction and operational noise and vibration at the source
		  • controlling construction and operational noise and vibration on the source to receiver transmission path
		  • implementing feasible and reasonable measures to minimise the noise and vibration impacts of construction and operational activities on local sensitive receivers.
			• Construction Noise and Vibration Management Sub-Plan

Item	Desired Performance Outcome	I2S Specific Environmental Performance Outcomes	Where addressed

Noise and Vibration - Structural	• Construction noise and vibration (including airborne noise, ground-borne noise and blasting) are effectively managed to minimise adverse impacts on acoustic amenity.
	• Increases in noise emissions and vibration-affecting nearby properties and other sensitive receivers during operation of the project are effectively managed to protect the amenity and wellbeing of the community.
	• Increases in noise emissions and vibration affecting environmental heritage, as defined in the Heritage Act 1977 (NSW), during operation of the project are effectively managed.
		• The proposal minimises impacts to structures as far as practicable by:
		  • controlling vibration at the source
		  • controlling vibration on the source to receiver transmission path
		  • implementing feasible and reasonable measures to minimise vibration impacts of construction activities on structures.
			• Construction Noise and Vibration Management Sub-Plan

Economic, Land Use and Agriculture	• The project minimises adverse economic impacts and capitalises on opportunities potentially available to affected communities. • The project minimises impacts to property and business including agricultural enterprises and accommodation and achieves appropriate integration with adjoining land uses, including maintenance of appropriate access to properties and community facilities, and minimisation of displacement of existing land use activities, dwellings and infrastructure.	• As part of Inland Rail as a whole, the proposal provides for the development of an efficient and sustainable route for the transport of freight between Brisbane and Melbourne • The proposal provides opportunities for regional economic development, by enabling local and regional businesses to access Inland Rail via regional transport hubs • Impacts to land use and properties are minimised as far as practicable • The proposal is appropriately integrated with adjoining land uses, and access to private properties is maintained • The proposal is appropriately integrated with local and regional land-use planning strategies.	• Biosecurity Management Sub-plan • Individual Property Management Plans
Social	• The project minimises adverse social impacts and capitalises on opportunities potentially available to affected communities.	• The proposal minimises impacts to the local community and businesses.	• Social Impact Management Plan

Item	Desired Performance Outcome	I2S Specific Environmental Performance Outcomes	Where addressed
Visual Amenity	• The project minimises adverse impacts on the visual amenity of the built and natural environment (including public open space) and capitalises on opportunities to improve visual amenity.	• Vegetation providing screening to the rail corridor is retained where practicable • The proposal is designed to have regard to the surrounding landscape and visual environment as far as practicable • The proposal incorporates features to minimise the potential visual impacts where visual receptors are concentrated • The proposal is visually integrated with its surroundings.	• Community Communication Strategy • Visual and Landscape Impact Mitigation Plan
Waste	• All wastes generated during the construction and operation of the project are effectively stored, handled, treated, reused, recycled and/or disposed of lawfully and in a manner that protects environmental values.	• Waste is managed in accordance with the POEO Act and the Waste Avoidance and Resource Recovery Act 2001 (NSW) (WARR Act) • Waste is assessed, classified, managed, and disposed of in accordance with the Waste Classification Guidelines (EPA, 2014a) • Reusable spoil is beneficially reused in accordance with the project spoil reuse hierarchy.	• Waste Management Plan
Climate Change and Sustainability	• The project reduces the NSW Government's operating costs and ensures the effective and efficient use of resources. • Conservation of natural resources is maximised. • The project is designed, constructed and operated to be resilient to the future impacts of climate change.	• Climate change risks are considered throughout the design and development process • The proposal is designed to maximise climate change resilience while minimising costs, community and environmental impacts • The proposal is designed, constructed and operated in accordance with relevant climate change legislation and guidelines • The design process targets an 'excellent' rating in accordance with the ISCA rating tool	• Water Re-use Strategy • Sustainability Management Plan • Waste Management Plan • Climate Change Risk Assessment Report.

Item	Desired Performance Outcome	I2S Specific Environmental Performance Outcomes	Where addressed
		• Sustainability considerations are integrated throughout the design, construction and operation phases of the proposal	

7 Implementation and Operation

7.1 Resources, Responsibilities and Authority

The Project organisational structure is provided in the figure below. Roles and responsibilities for ARTC /Inland Rail, regulators and other stakeholders are provided in Section 7.1.2 and Section 7.1.3.

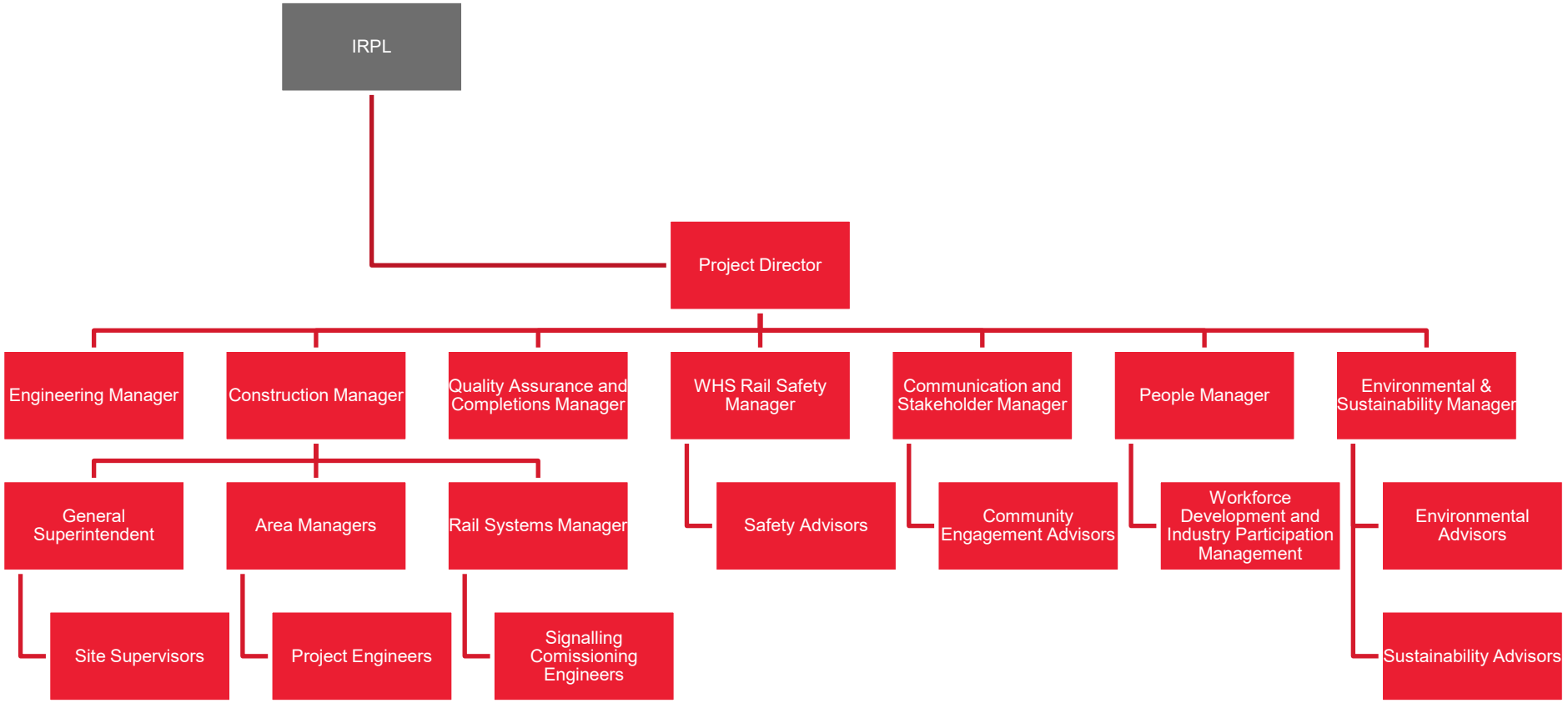


Figure 7-1 I2S Project Organisational Chart

7.1.1 John Holland Project Team

Table 7-1 Project Roles, Responsibilities and Authorities

Title	Roles, Responsibilities, and Authorities Relevant to this CEMP
Project Director/Manager	• Ensure all works comply with relevant regulatory and Project requirements. • Ensure the requirements of this CEMP are fully implemented, and, that environmental requirements are not secondary to other construction requirements. • Endorse and support the Project Environmental Policy. • Liaise with Inland Rail, ER and other government authorities as required. • Participate and provide guidance in the regular review of this CEMP and supporting documentation. • Provide adequate resources (personnel, financial and technological) to ensure effective development, implementation, and maintenance of this CEMP. • Ensure that all personnel receive appropriate induction training, including details of the environmental and community requirements. • Ensure that complaints are investigated to ensure effective resolution. • Stop work immediately if an unacceptable impact on the environment is likely to occur. • Notify ARTC/IRPL of incidents that have occurred including near misses • Notify the relevant regulatory agencies where JHG has hold the licence and permit
Project Design Manager	• Communicate with all personnel regarding compliance with the site-specific environmental issues in design. • Coordinate the implementation of the CEMP design elements. • Ensure design personnel manage design work in accordance with statutory and approval requirements. • Support the Project Environment and Sustainability Manager in achieving the Project environmental objectives through detailed design. • Liaise with Inland Rail and other government authorities as required
Project Construction Manager	• Plan construction work in a manner that avoids or minimises impact to environment. • Ensure the requirements of this CEMP are fully implemented. • Ensure construction personnel manage construction work in accordance with statutory and approval requirements. • Support the Project Environment and Sustainability Manager in achieving the Project environmental objectives. • Ensure environmental management procedures and protection measures are implemented. • Ensure all Project personnel attend an induction prior to commencing work. • Liaise with Inland Rail and other government authorities as required. • Stop work immediately if an unacceptable impact on the environment is likely to occur.
Project Area Managers	• Plan construction work in a manner that avoids or minimises impact to environment. • Ensure the requirements of this CEMP are fully implemented. • Ensure construction personnel manage construction work in accordance with statutory and approval requirements. • Support the Project Environment and Sustainability Manager in achieving the Project environmental objectives. • Ensure environmental management procedures and protection measures are implemented. • Ensure all Project personnel attend an induction prior to commencing work. • Liaise with Inland Rail and other government authorities as required. • Stop work immediately if an unacceptable impact on the environment is likely to occur.
Project Foreperson / Site Supervisor	• Communicate with all personnel and subcontractors regarding compliance with the CEMP and site-specific environmental issues. • Ensure all site workers attend an environmental induction prior to the commencement of works. • Coordinate the implementation of the CEMP. • Coordinate the implementation and maintenance of pollution control measures. • Identify resources required for implementation of the CEMP.

Title	Roles, Responsibilities, and Authorities Relevant to this CEMP
	• Support the Project Environment and Sustainability Manager in achieving the Project environmental objectives, including on ground implementation of the Activity Method Statement (AMS) and Erosion and Sediment Control Plan (ESCP). • Report any activity that has resulted, or has the potential to result, in an environmental incident immediately to the Project Environment and Sustainability Manager / Environmental Advisor. • Coordinate action in emergency situations and allocate required resources. • Stop activities where there is an actual or immediate risk of harm to the environment and advise the Construction Manager and Environment and Sustainability Manager.
Project Community and Stakeholder Manager	• Ensure that all community consultation activities are carried out. • Report any environmental issues to the Project Environment and Sustainability Manager raised by stakeholders or members of the community. • Communicate general Project progress, performance and issues to stakeholders including the community. • Maintain the 24-hour complaints hotline
Project Environment and Sustainability Manager	• Overall responsibility for the implementation of environmental and sustainability matters on the Project. • Report to Project Director and other senior managers on the performance and implementation of the CEMP. • Ensure management reviews of the CEMP are undertaken annually, documented and actions implemented. • Ensure environmental risks of the Project are identified and appropriate mitigation measures implemented. • Identify where environmental and sustainability measures are not meeting the targets set and where improvement can be achieved. • Obtain and update all environmental licences, approvals and permits as required. • Liaise with ER and approval authorities. • Preparing reports monthly outlining the Project works undertaken and the achievements that have been met, as well as identifying those areas where improvements were made. • Oversee site monitoring, inspections, and audits. • Develop and facilitate induction, toolbox talks and other training programs regarding environmental requirements for all site personnel. • Notify Inland Rail and relevant authorities in the event of an environmental incident or environmental non-conformance and manage corrective action implementation and close-out of these. • Stop activities where there is an actual or immediate risk of harm to the environment, or to prevent environmental non-conformities, and advise the Project Director, Construction Manager, and Superintendent. • Provide the ER with documentation requested in order for the ER to perform their functions (including preparation of the ER monthly report as well as the complaints register and any compliance assessment).
Project Environmental Advisor	• Assist in preparing and revising the CEMP, Sub-Plans, and associated documentation in accordance with all relevant requirements. • Undertake site inspections, carry out monitoring activities and complete site checklists. • Ensure monitoring records are appropriately maintained, reviewed and any non-compliance issues addressed. • Assist all site staff with issues concerning Project environmental matters. • Assist in developing training programs regarding environmental requirements and deliver where required, including delivery of the environmental component of toolbox talks. • Stop activities where there is an actual or immediate risk of harm to the environment and advise the Construction Manager, Area Manager, Superintendent and the Project Environment and Sustainability Manager
Wider Project team (including subcontractors)	• Comply with the relevant requirements of the CEMP, or other environmental management guidance as instructed by a member of the Project's management. • Participate in the mandatory Project/site induction program.

Title	Roles, Responsibilities, and Authorities Relevant to this CEMP
	• Report any environmental incidents to the Foreperson immediately or as soon as practicable if reasonable steps can be adopted to control the incident. • Undertake remedial action as required to ensure environmental controls are maintained in good working order. • Stop activities where there is an actual or immediate risk of harm to the environment and advise the Construction Manager, Area Manager, Superintendent or the Project Environment and Sustainability Manager.

7.1.2 ARTC and Inland Rail Roles and Responsibilities

ARTC is the Proponent under the EP&A Act with ultimate responsibility for compliance with the Planning Approval. Inland Rail is a subsidiary of ARTC which is responsible for the management and implementation of the Project to meet the obligations of the Approval.

The Inland Rail Environment Team will ensure compliance with the Project Planning Approval obligations held by ARTC. The key environmental management roles and responsibilities for Inland Rail during the construction phase of the Project are described in Table 7-2.

Table 7-2 ARTC and Inland Rail Roles, Responsibilities and Authorities

Title	Roles, Responsibilities, and Authorities Relevant to this CEMP
Inland Rail I2S Project Director	• Effective interface management for the resolution of complex Project issues and challenges. • Manage the environmental aspects of the Project and working closely with the Inland Rail Principal Environment Advisor.
Inland Rail I2S Principal Environment Advisor	• Review any environmental management plans and related documents prepared for the Project. • Review and consider minor project refinements that are consistent with the Project EIS • Monitor the environmental performance of the Project. • Assist ARTC with its biodiversity offset obligations • Complete site inspection as required and report on compliance • Interface with regulatory Authorities for ARTC Approvals • Notify DPHI and the relevant regulatory agencies where ARTC/IRPL has hold the licence and permit
Inland Rail I2S Stakeholder Engagement Lead (I2S) / Communications Lead (Southern NSW)	• Ensure that all community consultation activities are carried out. • Assist in the completing of the Community Communication Strategy (CCS) • Report any environmental issues to the Inland Rail Principal Environment Advisor raised by stakeholders or members of the community. • Communicate general project progress, performance and issues to stakeholders including the community. • Maintain the 24-hour complaints hotline. • Maintain the complaint register.
Inland Rail I2S Environmental Officer / Advisor	• Monitor, evaluate and advise on compliance with DPHI environmental requirements. • Review all environmental management plans for the Project or related activities that are not required to be approved by DPHI in consultation with the Inland Rail Principal Environment Advisor.

7.1.3 Regulator and Other Key Stakeholders

7.1.3.1 Environmental Representative (ER)

The Environmental Representative (ER) has been approved by the Planning Secretary and engaged by Inland Rail for the I2S Project. The environmental responsibilities of the ER are defined in CoA Condition A26. The roles and responsibilities of the ER has been described in Table 7-3.

Table 7-3 ER Roles, Responsibilities and Authorities

Title	Roles, Responsibilities, and Authorities Relevant to this CEMP
Environmental Representative (ER)	For the duration of Work and for no less than twelve (12) months after the completion of construction of the CSSI, the approved ER must: • receive and respond to communication from the Planning Secretary in relation to the environmental performance of the CSSI. • consider and inform the Planning Secretary on matters specified in the terms of this approval. • consider and recommend to the Proponent any improvements that may be made to work practices to avoid or minimise adverse impact to the environment and to the community. • review documents identified in Conditions A11, A18, B1, C5, C12, C17, C27, and E109, and any other documents that are identified by the Planning Secretary, to ensure they are consistent with requirements in or under this approval and if so: • make a written statement to this effect before submission of such documents to the Planning Secretary (if those documents are required to be approved by the Planning Secretary) • make a written statement to this effect before the implementation of such documents (if those documents are required to be submitted to the Planning Secretary / Department or are not required to be submitted to the Planning Secretary / Department); • provide a written statement / submission via the Major Projects portal to the Planning Secretary advising the documents which have been endorsed by the ER; • regularly monitor the implementation of the documents listed in Conditions A11, A18, B1, C5, C12, C17, C27, and E109 to ensure implementation is being carried out in accordance with the document and the terms of this approval; • as may be requested by the Planning Secretary, help plan, attend or undertake audits of the CSSI commissioned by the Department including scoping audits, programming audits, briefings and site visits, but not independent environmental audits required under Condition A28 of the CoA • as may be requested by the Planning Secretary, assist in the resolution of community complaints; • assess the impacts of minor ancillary facilities as required by Condition C9 of the CoA • consider any minor amendments to be made to the CEMP, CEMP Sub-plans and Construction Monitoring Programs that comprise updating or are of an administrative nature and are consistent with the terms of this approval and the CEMP, CEMP Subplans and Construction Monitoring Programs approved by the Planning Secretary and, if satisfied such amendment is necessary, approve the amendment. • prepare and submit to the Planning Secretary and other relevant regulatory agencies, for information and make publicly available, an Environmental Representative Monthly Report providing the information set out in the Environmental Representative Protocol under the heading “Environmental Representative Monthly Reports.” The Environmental Representative Monthly Report must be submitted within seven (7) calendar days following the end of each month for the duration of the ER’s engagement for the CSSI.

7.1.3.2 Environmental Protection Authority

The NSW Environment Protection Authority (NSW EPA) has powers under a range of legislation and is the agency primarily responsible for administering the Protection of the Environment Operations Act 1997

(POEO Act). The Project will require an Environment Protection Licence (EPL) as the construction activities are consistent with those defined by the act as a scheduled activity. As part of the approved EPL, the Project is required to:

- Work closely with the EPA to obtain and hold an EPL for the works.
- Notify the EPA in the event of an incident in accordance with relevant legislation and this CEMP.
- Report to the EPA as required by the EPL.
- Provide access to the site as reasonably required.

7.1.3.3 Specialist Consultants

Specialist environmental consultants will support the Project to provide expert advice and assistance in developing and delivering the CEMP and Sub-Plans. The Project will seek expert advice from additional specialist consultants during the delivery of the works as required by the CoA. Specialist consultant roles are described within Sub-plans.

7.1.3.4 Independent Appointments and Suitably Qualified Persons

A summary of independent appointments required under the CoA (Condition A19 - A21) and where these are addressed within Project documentation is presented in Table 7-4. All independent appointments required by the CoA will have regard to Seeking Approval from the Department for the appointment of independent experts (DPIE, 2020) and will hold current membership of a relevant professional body, unless otherwise agreed by the Planning Secretary.

Table 7-4 Independent Appointments and Suitably Qualified Persons

Appointment Type	CoA Reference	Where Addressed
Environmental Representative (ER)	A22 – A27	Section 7.1.3.1
Independent Audits	A28 – A33	Section 9.4
Community Complaints Mediator	B12 – B17	Community Communications Strategy
Suitably qualified and experienced ecologist	C20	Biodiversity Management Sub-plan
Suitably qualified and experienced heritage specialist.	C23	Heritage Management Sub-plan
Blasting Strategy - Suitably qualified and experienced person	E11	Section 7.5.5
Independent Peer Review of Hydraulic and Hydrological Modelling	E49 – E53	Flood Design Verification Report
Suitably qualified and experienced hydrologist	E50	Flood Design Verification Report Flood Review Report(s)
Suitably qualified geomorphologist or scour/erosion specialist	E60	Erosion Threshold Velocities Report
Independent Road Safety Audit	E106	Traffic, Transport and Access Management Sub-Plan
Suitably qualified and experienced person(s) in the social sciences	E109	Social Impact Management Plan
Suitably qualified and experienced person(s) in the human resources sector	E117	Social Impact Management Plan Code of Conduct
Site Auditor	E151-E154	Contaminated Land and Hazardous Material Management Plan Site Audit Statements or Interim Audit Advice Site Audit Statement and Site Audit Report

Appointment Type	CoA Reference	Where Addressed
Suitably qualified and experienced contaminated land consultant(s)	E155 – E161	Sampling and Analysis Quality Plan Detailed Site Investigations Remedial Action Plan(s) Soil and Water Management Sub-plan Contaminated Land and Hazardous Material Management Plan

7.2 Selection and Management of Subcontractors

The Project Environment and Sustainability Manager, or delegate, will participate in the tender assessment and selection process for the Project subcontractors as necessary based on the associated environmental risks. All Subcontractors will be required to complete a subcontractor questionnaire or similar.

Environmental requirements and responsibilities are to be specified to sub-contractors in the contract documentation. As part of the selection process, consideration will also to be given to their past environmental performance. The Project Environment and Sustainability Manager, or delegate, may participate in the tender assessment and selection process where it is deemed necessary due to associated environmental risks. All sub-contractors will be required to complete a sub-contractor questionnaire or similar as part of the Induction process.

All sub-contractors are required to work in accordance with the approved CEMP (this document) and sub-plans. This will form part of all sub-contractor contractual agreements. This includes participation in:

- Project and/or site inductions, where the requirements and obligations of the CEMP are communicated and toolbox talks. A record of all subcontractors inducted will be maintained as part of the Project induction and training register.
- Carrying out observations, inspections, audits, and incident investigations (as required).
- Planning, implementing, and monitoring environmental protection measures and keeping environmental records.
- Development and/or review of AMS/EWMS/TRA (as required).

All environmental documentation submitted by subcontractors will be subject to review and approval (if required) by the Project staff to ensure compliance with Inland Rail deed requirements and CoA, before works may begin.

All subcontractors are required to attend site inductions where the requirements and obligations of the CEMP are communicated. All sub-contractors must complete environmental training induction before commencement on the project. A record of all sub-contractors inducted will be maintained as part of the Project induction and training register.

The ER or delegate will complete regular site inspections which will monitor and assess:

- The sub-contractor’s general work practices.
- The effectiveness of the sub-contractor’s environmental protection measures.
- The sub-contractor’s compliance with the requirements of this CEMP and associated sub-plans.
- The maintenance of environmental measures.

- How environmental protection measures on subcontracted work interact with adjacent work areas, as applicable.

7.3 Subcontractor Management

Subcontractor environmental requirements and responsibilities are to be specified in the contract documentation. All subcontractors are required to work in accordance with the approved CEMP.

All subcontractors will operate under John Holland's IMS. To ensure compliance with the minimum requirements of the IMS, subcontractors will be treated as if they were the Project employees, that is, all parts of the IMS apply to their operations. To ensure compliance and detect any non-conformance, subcontractors will be subject to:

- Environmental inspections of their work areas with key subcontractor representatives and Forepersons
- Environmental audits undertaken by the Project Environment and Sustainability Manager (or delegate).

John Holland operates under the Health, Safety and Environment (HSE) Behavioural Framework detailed in Section 0, which provides guidance when engaging with site personnel. The framework forms part of subcontractor induction and management and covers the expected behaviours around environmental management for all workers, supervisory staff and managers.

Examples of poor performance and behaviour include the ongoing failure to close out actions following Environmental Inspections, absent controls in the work area (such as Erosion and Sediment controls) or non-compliance with approval issues such as working hours and/or plant/equipment parked under drip lines of trees or outside the boundary. To manage poor performance and behaviour several mechanisms are available for use when a subcontractor continually fails to meet their contractual obligation such as:

- Provide the ongoing support and guidance to teams in the field through the Environmental team.
- Re-induct individuals/teams where required and provide specific training, such as Erosion and Sediment Control.
- Involvement of senior management from the Project and Subcontractor to discuss poor performance at a higher level.
- Disciplinary action if required.

7.4 Competence, Training and Awareness

To ensure that this CEMP is effectively implemented, each level of management is responsible for ensuring that all personnel reporting to them are aware of the requirements of this CEMP. The Environment and Sustainability Manager, or their delegate, will coordinate the environmental training, which may be presented in conjunction with other training and development activities (e.g. safety).

An Environmental Training Needs Analysis has been undertaken by the Project Environment and Sustainability Manager and the Workforce Development Manager during the CEMP planning phase. The analysis included an assessment of training skill level required and the potential for any gaps between required knowledge and actual knowledge levels. The analysis will inform a Project wide Training Plan. It will be particularly useful in identifying the need for targeted environmental awareness training across the I2S Project.

An indicative training matrix has been prepared listing all roles that hold environmental responsibilities as detailed in this CEMP. The indicative training matrix is provided in the following table.

Table 7-5 Indicative Training Needs Analysis

	Project Personnel														
Training Topic / Course	**Project Director**	**Senior Managers**	**Superintendent**	**Area Managers**	**Safety Personnel**	**Traffic Engineers**	**Quality Systems**	**Environmental**	**Sustainability**	**Community Engagement**	**Foreperson**	**Leading Hands**	**Subcontractors**	**Design**	**Administration**
Project induction	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CEMP onboarding	X	X	X	X	X	X	X	X	X	X	X				
Project approvals, licences, obligations, and requirements	X	X	X	X	X	X	X	X	X	X	X	X	X		
Out of Hours Works approvals and permit processes and requirements	X	X	X	X	X	X	X	X	X	X	X	X	X		
Dewatering of sediment control basins/water treatment plants			X	X				X	X	X	X	X	X		
Environmental incident identification, response, and management	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Noise and vibration monitoring				X				X	X	X					
Water treatment plant monitoring, alarms, and response			X	X				X	X		X	X			
Environmental management obligations and due diligence	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Erosion and Sediment Control – Blue Book								X							
Practical erosion and sediment control for the workforce			X	X				X	X		X	X	X		
Biosecurity Management		X	X	X				X			X	X	X		
Unexpected finds procedure and asbestos awareness	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICAM or similar incident investigation training								X							
ISAP – Infrastructure Sustainability Assessment Practitioner									X						
Cultural heritage awareness training			X	X				X			X	X	X		
Non-Aboriginal heritage training			X	X				X			X	X	X		
Biodiversity awareness training			X	X				X			X	X	X		

7.4.1 Health, Safety and Environment Behavioural Framework

Presented as four core themes, 'Standards', 'Communication', 'Risk management' and 'Involvement', the HSE behaviours describe a set of everyday behaviours that are expected of all workers to drive better HSE outcomes. These themes are the key elements of a culture that displays strong HSE performance. The HSE Behavioural Framework integrates onsite planning and management of environmental aspects with approaches to health and safety. This extends to the way the Project manages subcontractors, carries out regular inspections, deals with incidents and identifies lessons learned and improvement opportunities.

The HSE Behaviours are a set of behaviours that, if displayed consistently, will support strong safety and environment performance at a workplace. The HSE Behaviours are outlined in a simple framework in Figure 7-2.

Theme	Everyone	Supervisors	Managers
Standards	Follow rules	Ensure compliance	Set high standards
Communication	Speak up	Encourage the team	Communicate openly
Risk management	Be mindful	Promote risk awareness	Confront risk
Involvement	Get involved	Involve the team	Involve others

Figure 7-2 HSE Behaviour Framework

Represented in the framework above are twelve cells that identify HSE behaviour expectations set out across three employee groups noted as Everyone, Supervisors and Managers, and the four themes. Each cell is interdependent of each other and is supported by a set of behaviours that are expected of people and a set of behaviours that are considered undesirable. As part of the CEMP, the HSE behaviours will be integrated within:

- Inductions and Training – to communicate the expected HSE Behaviours to staff, subcontractors and workforce.
- Toolbox and Pre-Starts – to communicate expected HSE Behaviours to workplace members as they relate to a specific task or change in hazards/risks.
- Audits and reviews – to identify a workplace's strengths.

A Project specific Worker Code of Conduct (Appendix A11) has been developed for all personnel associated with the Project and will be incorporated into the Project environmental induction.

7.4.2 Environmental Induction

All personnel (including sub-contractors) are required to attend a site induction that includes an environmental component before commencement on-site. This is undertaken to ensure all personnel involved in the Project are aware of the requirements of the CEMP.

Short-term visitors to site undertaking inspections/entering the site (such as regulators) will be required to undertake a visitor's induction and be accompanied by inducted personnel at all times.

Temporary visitors to site for purposes such as deliveries will be required to be accompanied by inducted personnel at all times.

The Environment and Sustainability Manager (or delegate) will conduct the environmental component of the site inductions. The environmental component of the induction will cover relevant elements of the CEMP and include:

- Relevant details of the CEMP, including all Sub-plans, procedures and strategies, their purpose and objectives
- Requirements of due diligence and duty of care
- Key roles and contact details with regard to environmental management on site
- Relevant legislation, CoA, conditions of environmental licences, permits and approvals
- Potential environmental emergencies on-site and the emergency response procedures
- Incident notifications and requirements of the Pollution Incident Response Management Plan (PIRMP)
- Reporting and notification requirements for pollution and other environmental incidents
- A Worker Code of Conduct (Appendix A11) for all workers to set the expectations behaviour towards local people and address the gendered impacts of the project personnel and
- The Environmental Management System for the Project
- Key environmental issues and measures
- Mitigation measures for the control of environmental issues
- Complaints response and reporting
- High risk activities and associated environmental safeguards
- Incident and emergency response and reporting requirements
- Environmentally sensitive locations and no-go/exclusion zones
- Erosion and sediment controls, water quality controls and dewatering activities
- Minimising light pollution on sensitive receivers during night works
- Management of contaminated material (including asbestos impacted material) including Signs of contaminated soil
- Procedure for unexpected finds of contaminated land, asbestos, or human remains
- Use of spill kits
- Working near waterways
- Obligation to report and the process for reporting environmental issues on-site including damaged environmental controls
- Obligations under the *Biosecurity Act 2015* to prevent the spread of weeds during Construction
- Responsibilities under the *National Parks and Wildlife Act 1974*, including the need to cease work immediately and report any object of potential Aboriginal heritage unearthed during clearing, grubbing and earthworks operations
- Responsibilities under the *Heritage Act 1977* if an object of potential Non-Aboriginal heritage is uncovered during construction
- Responsibilities under the POEO Act, other relevant legislation and the EPL
- Responsibilities under the *Contaminated Land Management Act 1997*
- Standard construction hours, approved standard hours and the process for seeking approval for Out-of-Hours Work (OOHW), including consultation

- Requirement to maintain surrounding property access for residences, business owners, and their visitors, and to minimise disruptions to these properties for the duration of construction
- Location of identified Aboriginal and non-Aboriginal archaeological heritage sites
- Boundaries for vegetation clearing, fauna and fauna habitat management, including awareness of threatened fauna species and fauna rescue and obligations under the EPBC Act *and Biodiversity Conservation Act 2016*
- Overview of Project ISC requirements.

Refresher environmental awareness training will be provide as required, based on the environmental risk assessment and turnover of personnel. Refresher environmental awareness training will be included on the register of environmental training.

The Environment and Sustainability Manager may authorise amendments to the site induction at any time where required. Possible reasons for changes to the induction may be due to Project modifications, legislative changes or amendments to this CEMP, in response to incidents to include lessons learnt or related documentation.

7.4.3 Toolbox Talks

Toolbox talks will be one method of raising awareness and educating personnel on issues related to all aspects of construction including environmental issues and in response to environmental events (i.e. incidents and / or non-conformances) (refer section 8.3.1 for further detail). The toolbox talks are used to ensure environmental awareness continues throughout construction.

Toolbox talks will also be tailored to specific environmental issues relevant to upcoming works and will include details of AMS for relevant personnel. Relevant environmental issues include (but are not limited to):

- Incident notification requirements
- Erosion and sedimentation control
- Management of waste concrete
- Dewatering and water management
- Contamination and spoil management
- Hours of work
- Emergency and spill response
- Aboriginal and non-Aboriginal heritage
- Threatened species and ecological communities
- Clearing controls and vegetation protection
- Weed management
- Noise and vibration management,
- Minimising light pollution during night works
- Air quality, dust control and odour management
- Sustainability
- Unexpected and Incidental Finds Protocol
- Lessons learnt from other projects, where relevant
- Incident alerts, where relevant

Toolbox talk attendance is mandatory and attendees of toolbox talks are required to sign an attendance form and the records maintained.

Examples of potential tool box talks that could be presented to construction personnel on site are presented in Table 7-6. Tool box talks will be delivered based on activity type and assessed risk as part of the planning and safety management process.

Table 7-6 Examples of Potential Toolbox Talks

Aspect	Training / Topic	Personnel Required	Timing / Frequency / Method of Delivery
Emergency Spill Response	• Use/location of spill kits. • Spill control. • Emergency response procedures. • Identify hydraulic hose fatigue.	Construction Personnel	Project Toolbox Talks
Incident Management and Reporting	• Incident Management and Reporting Procedure.	Construction Personnel	Project Toolbox Talks
Noise and Vibration Management	• The management of noise impacts. • Out-of-Hours Work Protocols. • High noise generating activities.	Area Managers responsible for the implementation of noise and vibration mitigation measures	Prior to the commencement of activities with the potential for high noise impacts on sensitive receivers
Blue Book Training	• Erosion and Sediment Control Training	Relevant Construction Personnel	Prior to commencement of bulk earthworks
Heritage Management	• The management of heritage impacts. • Unexpected and Incidental Finds Protocol (Unexpected finds for heritage items and human remains)	Construction Personnel	Project Toolbox Talks
Biodiversity Management	• The management of flora and fauna impacts. • Unexpected and Incidental Finds Protocol (threatened species and Threatened Ecological Communities (TECs)). • No-go Zones. • Vegetation clearing procedure.	Construction Personnel	Project Toolbox Talks
Air Quality Management	• Management of Air Quality impacts	Construction Personnel conducting dust generating activities	Prior to the commencement of activities with the potential for dust generation
Soil and Water Management	• Erosion and sediment controls. • ASS management. • Unexpected and Incidental Finds Protocol (Unexpected, contaminated land and asbestos). • Construction site water reuse and dewatering procedure.	Construction Personnel	Project Toolbox Talks

Aspect	Training / Topic	Personnel Required	Timing / Frequency / Method of Delivery
Waste Management	• The management of waste. • Waste recording and reporting. • Waste classification. • Stockpile management.	Construction Personnel	Project Toolbox Talks
Spoil Management	• The management of spoil. • Spoil recording and reporting. • Spoil classification. • Stockpile management.	Construction Personnel	Project Toolbox Talks
Visual Amenity Management	• The management of visual amenity impacts. • Light spill management. • Stockpile management.	Construction Personnel	Project Toolbox Talks
Flooding	• Triggers for flood management requirements • Management of fuels and chemical storage • Stockpile management	Construction Personnel	Project Toolbox Talks
Biosecurity	• Vehicle assess points • Vehicle inspection requirements • Biosecurity emergencies • Vehicle hygiene protocols and wheel wash requirements • No-go zones and sensitive areas	Construction Personnel	Project Toolbox Talks

7.4.4 Training and Awareness

Targeted environmental awareness training will be provided to individuals or groups of workers with a specific authority or responsibility for environmental management or those undertaking an activity with a high risk of environmental impact. Topics covered may include those detailed above, or others deemed necessary in the lead up to or during construction. Workers responsible for carrying out activities managed under an AMS must undertake a toolbox talk on the requirements of the AMS.

Awareness notes, in the form of posters, booklets, or similar will be developed and distributed to the Construction Manager, Project Engineers, Superintendent / Foreperson / Leading Hands and other personnel with a responsibility for managing specific work locations or activities. This documentation will be distributed to the broader construction workforce through daily pre-starts meetings and made available in site offices/break facilities.

For some activities required to be carried out under this CEMP and Sub-plans, as detailed in the relevant sections of these documents, an appropriate level of training is necessary to ensure that the activity is suitably implemented. This includes, but not limited to:

- Noise and vibration monitoring
- Out-of-Hours Work approvals and permit requirements
- Surface water and groundwater quality monitoring
- De-watering

- Development of ESCPs
- Unexpected and Incidental Finds Protocol
- Environmental Incident identification, management and response
- Fauna rescue
- Pre-clearing surveys
- Pre and post condition surveys
- Community complaints and enquiries.

Personnel performing tasks that can cause significant environmental impacts will be selected on competency based on education, training, and experience. All employees will receive suitable environmental induction/training to ensure that they are aware of their responsibilities and are competent to carry out the work. Environmental requirements will be explained to employees during site induction and on-going training via toolbox meetings, briefings, notifications or similar.

7.4.5 Daily Pre-Start Meetings

The pre-start meeting is a tool for informing the workforce of the day's activities, safe work practices, environmental protection practices, work area restrictions, activities that may affect the works, coordination issues with other trades, hazards and other information that may be relevant to the day's work.

The Superintendent / Foreperson, or their delegate, will conduct a daily pre-start meeting with the site workforce before the commencement of work each day (or shift) or where changes occur during a shift. The daily prestart is encouraged to be an interactive meeting, providing the workforce with an opportunity to provide comment on the management of site activities.

The environmental component of pre-starts will be determined by the Superintendent / Foreperson and environmental personnel and will include any environmental issues that could potentially be impacted by, or impact on, the day's activities. All attendees will be required to sign on to the prestart and acknowledge their understanding of the issues explained. Pre-start topics, dates delivered and a register of attendees will be recorded.

7.4.6 Communications Training

All staff (including plant operators and truck drivers) and sub-contractor personnel working on the delivery of the Project will be required to behave in a courteous and professional manner when in dialogue with any community member. All personnel will be:

- Trained on how to respond to community queries
- Aware of and abide by the requirements for the release of information
- Advised on the identity of the community within which they are working prior to their involvement in the work activities.

Community involvement obligations will be included in the site induction.

7.5 Working Hours

The Construction Noise and Vibration Management Sub-Plan (CNVMP) and associated Out of Hours Work Protocol (OOHWP) provides key details of Project working hours and the assessment and approval process for variation of working hours as authorised under the CoA or otherwise permitted under the EPL. The following provides a summary of key requirements per the CoA. Approved Standard Construction Hours

In accordance with CoA Condition E1, approved working hours for standard construction for this Project are:

- Monday to Friday: 7am to 6pm
- Saturday: 7am to 6pm
- Sunday and public holidays: no work

7.5.1 Approved Additional Construction Hours

Despite CoA Condition E1, in accordance with CoA Condition E2, work (excluding establishment of the temporary workforce accommodation facilities) may be undertaken during the hours of 6:00 am to 6:00 pm each day provided:

- no work affects any given receiver between the hours of 6:00 pm on a Saturday and 7:00 am on a Monday every second week;
- only low impact noise activities (defined in CoA Condition E3(b)) are permitted between 6.00 am and 7.00 am
- consultation with affected receivers occurs at least every three months, or more frequently following complaints recorded in the Complaints Register required by Condition B8, to determine respite or additional mitigation measures.

7.5.2 Variation to Work Hours

Notwithstanding CoA Conditions E1 and E2 regarding the approved working hours for the Project, works may be undertaken outside of the approved working hours in accordance with CoA Condition E3 including those authorised by the Project EPL. Circumstances under which activities can be undertaken outside of these hours include:

a) Safety and emergencies, including:

(i) for the delivery of materials required by the NSW Police Force or other authority for safety reasons; or

(ii) where it is required in an emergency to avoid injury or the loss of life, to avoid damage or loss of property or to prevent environmental harm; or

b) Low impact noise activities, including:

(i) construction that causes LAeq(15 minute) noise levels:

- no more than 5 dB(A) above the rating background level at any residence in accordance with the ICNG, and
- no more than the ‘noise affected’ NMLs specified in Table 3 of the ICNG at other sensitive land uses; and

(ii) construction that causes LAFmax noise levels no more than 15 dB(A) above the rating background level at any residence during the night period as defined in the Noise Policy for Industry (EPA, 2017); and

(iii) construction that causes:

- continuous or impulsive vibration values, measured at the most affected residence, are no more than the preferred values for human exposure to vibration specified in *Table 2.2 of Assessing vibration: A technical guideline* (DEC, 2006), or

- intermittent vibration values, measured at the most affected residence, are no more than the preferred values for human exposure to vibration, specified in Table 2.4 of Assessing vibration: A technical guideline (DEC, 2006); or

(c) By approval or agreement, including:

(i) where different construction hours are permitted or required under an EPL in force in respect of the CSSI; or

(ii) works which are not subject to an EPL that are approved under an Out-of-Hours Work Protocol as required by Condition E5; or

(iii) negotiated agreements with directly affected residents and sensitive land uses.

Where evening or night works are required, light spillage will be minimised to surrounding properties in accordance with CoA E125 and must be consistent with the requirements of *Australian Standard 4282-1997 - Control of the obtrusive effects of outdoor lighting* and relevant Australian Standards in the series *AS/NZ 1158 – Lighting for Roads and Public Spaces*. Additionally, mitigation measures (such as shielding, lighting orientation and height adjustments) will be implemented to manage any residual night lighting impacts to protect properties adjoining or adjacent to the Project, in consultation with affected landowners.

7.5.3 Highly Noise Intensive Work

In accordance with CoA Condition E4, except as permitted by an EPL or approved through an OOHW Protocol (for work not subject to an EPL, any works considered to be “highly noise intensive works” that would result in an exceedance of the applicable Noise Management Level (NML) at a receiver must only be undertaken:

- Between 8:00am to 6:00pm Mondays to Fridays, excluding public holidays;
- Between 8:00am to 1:00pm Saturdays; and
- in continuous blocks not exceeding three (3) hours each with a minimum respite of at least one hour between each block of highly noise intensive work.

For the purpose of this condition, ‘continuous’ includes any period during which there is less than a one (1) hour respite between ceasing and recommencing any work that is the subject of this condition.

Construction activities which are defined as annoying under the *Interim Construction Noise Guideline* (DECC, 2009) are defined as ‘highly noise intensive works’. These include:

- Use of ‘beeper’ style reversing or movement alarms, particularly at night-time
- Using power saws (for cutting timber, masonry, road pavement or steel work).
- Grinding metal, concrete, or masonry.
- Rock drilling.
- Line drilling.
- Vibratory rolling.
- Bitumen milling and profiling.
- Jackhammering, rock-hammering, or rock-breaking.

- Impact piling
- Rail track tamping.

It should be noted that an assessment may be undertaken for high noise activities (such as vibratory rolling) to demonstrate that the activity may not trigger this threshold.

7.5.4 Crushing and Grinding Works

Crushing and grinding works must only be undertaken during the hours specified in Section 7.5.3.

7.5.5 Blasting

Approved working hours for Blasting associated with the Project (if required) must only be undertaken in accordance with CoA condition E14 during the following hours (or as authorised through an EPL if blasting is proposed outside of these hours):

- 9:00 am to 5:00 pm, Monday to Friday, inclusive;
- 9:00 am to 1:00 pm, Saturday; and
- at no time on Sunday or on a public holiday;

This condition does not apply in the event of a direction from police or other relevant authority or utilities for safety or emergency reasons to avoid loss of life, property loss and/or to prevent environmental harm.

Prior to any blasting being undertaken by the Project, a Blast Management Strategy will be prepared in accordance with CoA Condition E10. A suitably qualified and experienced person will be engaged to endorse the *Blast Management Strategy* as required by CoA Condition E11.

7.6 Communication

7.6.1 Internal Communication

Clear lines of communication within the Project is key to minimising environmental impacts and achieving continual improvements in environmental performance. This includes communication within the Project Environment and wider Project team.

The environmental team will meet regularly to discuss any issues with environmental management on-site, any amendments to plans that might be required or any new/changes to construction activities. Regular meetings may also be scheduled with the ER and relevant Inland Rail personnel. The purpose of these meetings will be to communicate ongoing environmental performance and to identify any issues to be addressed.

In addition, environment team members will participate in regular toolbox talks to communicate on environmental performance, advise on any upcoming sensitive environmental matters for future work areas and to receive feedback from on-site personnel.

Internal communication hierarchies will be developed and distributed to the Project Environment team, and updated if any changes occur, such as new staff members joining the team. The communication hierarchy will provide details of who to contact in the event of any environmental problems and/or pollution events and will include contact details of each team member.

7.6.2 Liaison with EPA, government authorities or other relevant stakeholders

The Project Environment and Sustainability Manager (or delegate) has the responsibility to report on the ongoing environmental performance of the Project to Inland Rail, ER, EPA, and other regulatory agencies. The Project Environment and Sustainability Manager (or delegate) will report regularly to inland Rail on progress and any key environmental matters and to the EPA, as required.

The Project Construction Manager and the Project Environment and Sustainability Manager (or delegate) are 24-hour contacts. They have the authority to halt the progress of the works if necessary. They are the key emergency response personnel during an environmental site emergency.

The Project Environment and Sustainability Manager (or delegate) is the authorised contact person for communications with the client and the EPA on environmental matters. Inland Rail will be immediately notified on each occasion that the site is visited by any government agencies including EPA.

7.6.3 Community liaison and/or notification

7.6.3.1 Community Communication Strategy

Inland Rail has prepared a Community Communication Strategy (CCS) that meets the conditions of the CoA, specifically Conditions B1 – B17. The CCS is publicly available at https://inlandrail.com.au/wp-content/uploads/2024/10/i2s-community-communication-strategy-4.pdf

The Communication Strategy was approved by the Planning Secretary on 12 August 2024, as required by NSW CoA Condition B3.

The Communication Strategy includes:

- Principles to guide the overall approach to community and stakeholder involvement
- Identification of the stakeholders and groups to be consulted during the Project
- identify details of the community and its demographics
- Procedures and mechanisms for the distribution of information about the Project, such as regular updates about construction activities, the program for construction activities and key milestone dates.
- Opportunities for the community to visit Project construction sites
- A process for communication with adjacent/nearby developments for the management of potential cumulative impacts or emissions (noise, air or odour) from their sites
- Methods for involving construction personnel in engaging with the local community
- Methods and tools for engaging with the local community, including community forums to discuss key environmental management issues of concern for the Project
- Procedures and mechanisms:
    - Detailing how the community can discuss or provide feedback in relation to the Project
    - Detailing how the Project team will respond to community enquiries and feedback
    - Describing how issues will be resolved or disputes meditated in relation to environmental management and construction of the Project
    - identifying who will engage with the relevant stakeholders
    - Describing how to resolve any issues and mediate any disputes that may arise in relation to property and infrastructure impacts.

Where relevant, the Inland Rail Stakeholder Engagement Lead, Inland Rail Communications Lead (Southern NSW) and the Project Community Relations Manager will undertake consultation with proponents of other nearby developments to increase the overall awareness of Project / Project timeframes and impacts.

The CCS will be implemented for the duration of the Project through the implementation of the Project Communication Management Plan. John Holland will prepare and implement a Complaints Management System (CoA B6) which aligns with the CCS.

7.6.3.2 Complaints Management

JHG will maintain a Complaints Register (CoA B8) for the Project within a project specific application known as 'Consultation Manager', in accordance with the requirements of CoA B8.

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

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

7.6.3.3 Complaints Response

John Holland will respond to complaints in accordance with the Inland Rail specification – '*Complaints Management Requirements'*. The complaint response process is presented in Figure 7-3.

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

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

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

Complaint issues and trends will be analysed and reported by the Project Environment Team in the and included in the Contractor's Monthly Report. Where required, complaints will be escalated to executive and senior managers I accordance with inland Rails complaints management process.

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

7.6.3.4 Response Timeframes

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

Feedback and Enquiries

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

Complaints

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

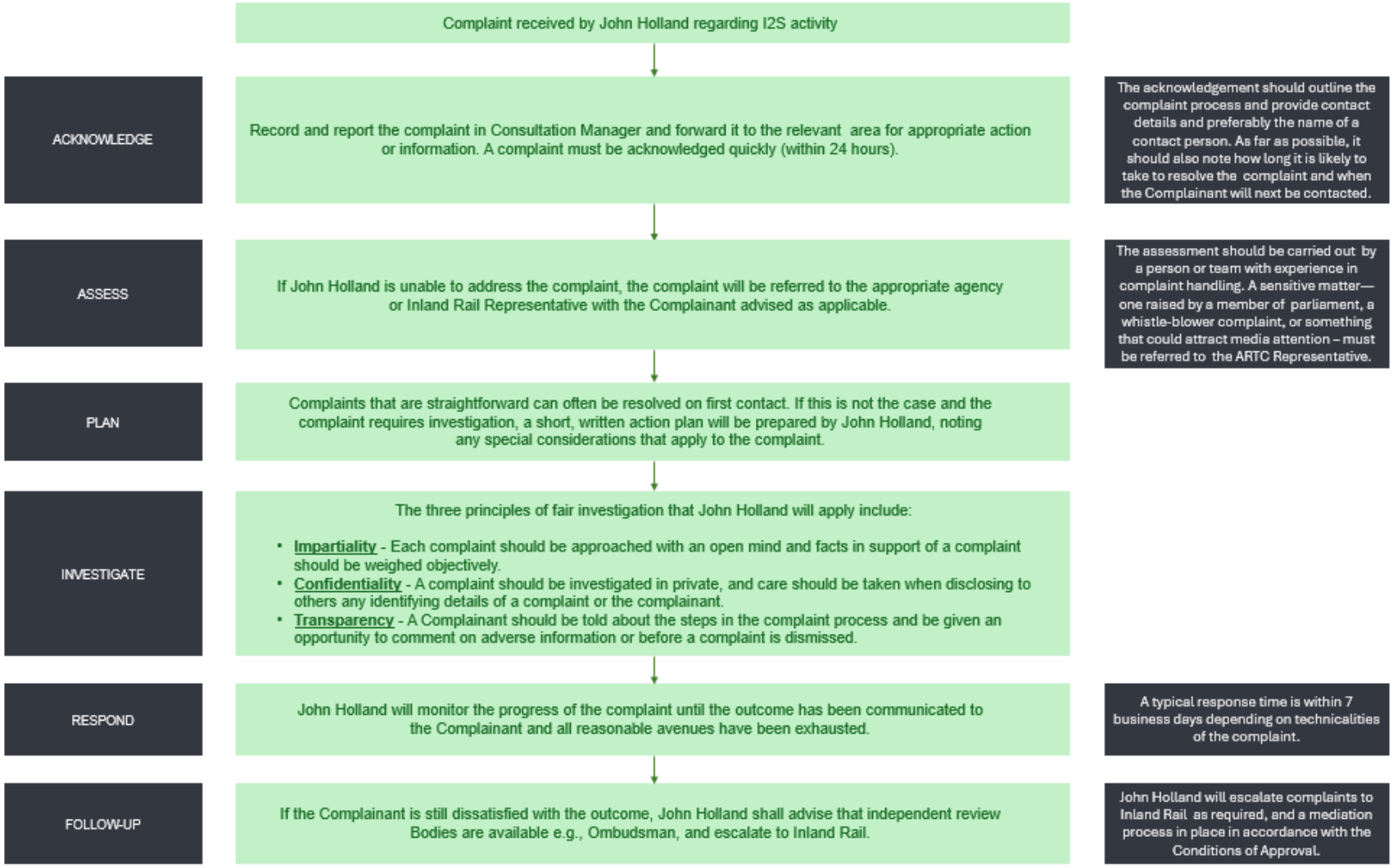


Figure 7-3 Complaint Response Process

7.6.3.5 Complaints Register

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

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

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

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

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

7.6.3.6 Community Complaints Mediator

In accordance with CoA Condition B12 – B17, the Community Complaints Mediator was engaged by Inland Rail and was approved by the Planning Secretary on 1 October 2024 in accordance with CoA B12. The Community Complaints Mediator is independent of the design and construction and accredited under the National Mediator Accreditation System, administered by the Mediator Standards Board.

The role of the Community Complaints Mediator is to address any complaint where a member of the public is not satisfied with Inland Rail's response to issues raised through the Complaints Management System, including disputes regarding rectification and compensation. The mediation process will review unresolved disputes relating to the environmental management and delivery of the I2S project where an acceptable resolution to both parties has not been achieved.

The Community Complaints Mediator will:

- review unresolved disputes where the complaints escalation procedure and mechanisms have not been able to satisfactorily address the complaint
- make recommendations to Inland Rail to address complaints, resolve disputes or mitigate against the occurrence of future complaints and disputes
- provide a copy of the recommendations, and Inland Rail's response to the recommendations, to the Planning Secretary within one month of the recommendations being made.

John Holland will assist Inland rail throughout the mediation process, if required, and will provide all necessary information to aid in resolving the complaint.

7.6.4 Project website

In accordance with CoA B18, a website has been established by Inland Rail for the Project:

https://inlandrail.com.au/where-we-go/projects/illabo-to-stockinbingal/

The website will be regularly maintained during construction of the Project and for a minimum of 24 months following completion of construction. The website will be kept up to date with the latest Project information in accordance with CoA Condition B7, environmental assessments, and will include all community updates. The Project website includes methods for the community to provide feedback, enquiries and complaints related to the Project. Up-to-date information (excluding confidential commercial information) will be published before the relevant work commencing and maintained on the website or dedicated pages including the below. Note that John Holland will provide Inland Rail with the relevant information to be uploaded to the website.

- A copy of this CEMP and Sub-plans
- Documentation required to be published under the Infrastructure Approval inlcuding
    (a) information on the current implementation status of the CSSI;
    (b) a copy of the documents listed in Condition A1 of this approval, and any documentation relating to any modifications made to the CSSI or the terms of this approval;
    (c) a copy of this approval in its original form, a current consolidated copy of this approval (that is, including any approved modifications to its terms), and copies of any approval granted by the Minister to a modification of the terms of this approval;
    (d) a copy of each statutory approval, licence or permit required and obtained in relation to the CSSI;
    (e) a current copy of each document required under the terms of this approval must be published before the commencement of any work to which they relate or before their implementation, as the case may be; and
    (f) a copy of the compliance and audit reports required under this approval.
- Community notifications, including for OOHW
- nformation on the current implementation status of the CSSI;
- Modifications to the Infrastructure Approval and consistency assessments
- Details of the telephone complaints line
- Other documents requested by Inland Rail.

A copy of each document required to be made publicly available under CoA B18 will be published within 14 days of the finalisation or approval of the relevant document unless an alternate timeframe is prescribed by another CoA.

John Holland will supply documents to Inland Rail required by the relevant CoA to be made publicly available, meeting Inland Rail and DPHI requirements including web-accessibility requirements.

Where the information/document relates to a particular work activity or is required to be implemented, it must be published before the commencement of the relevant work activity to which it relates or before its implementation.

Confidential information, which may include the location of threatened species, Aboriginal objects or places and personnel contact details, will be removed from all documents provided before being made available to the public.

All information provided on the website will be ordered in a logical sequence and be easy to navigate.

8 Incidents and Emergencies

An incident is defined by the CoA as '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'. An environmental emergency or incident may include:

- Pollution to land or water from a spillage or leak of a substance
- Unauthorised harm or damage to native flora and fauna
- Failure of erosion and sediment control devices leading to pollution of waterways
- Unexpected finds of hazardous materials or heritage
- Damage to heritage items or protected flora or fauna species
- Any contractual or compliance breaches.

The Infrastructure Approval (SSI-9406) defined 'material harm' as harm that:

- involves actual or potential harm to the health or safety of human beings or to the environment that is not trivial; or
- results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding $10,000, (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment).

Incidents will be documented and addressed during the Project's life cycle and through the john Hollands procedures and policies. If an incident does occur, all project personnel are required to cease works immediately and follow the processes in line with these procedures and notification and reporting requirements outlined in the below sections.

8.1 Project Incident Classification

In the event of an environmental incident, the Project will implement classification, notification, and reporting requirements in accordance with JH's Project Environmental Incident Procedure and the IRPL Event Management Process (Appendix A6). Consideration will also be given to the ARTC event severity matrix.

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

In the event of an incident, the Project will undertake notification requirements as detailed in Table 8-1.

Table 8-1 Incident Notification

Report only	Notifiable
• Verbally notify Inland Rail of incidents immediately, followed by written notification to Inland Rail and the ER within 24 hours of the incident • If required, IRPL will notify the EPA and relevant authorities immediately	• Verbally notify Inland Rail of incidents immediately, followed by written notification to IRPL and the ER within 24 hours of the incident. • Inland Rail to notify the EPA and relevant authorities immediately. • Prepare an incident notification / non-compliance report and submit to Inland Rail and the ER within 48 hours.

Report only	Notifiable
	• Prepare an investigation report and submit to IRPL and the ER within 7 days.

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

8.2 Incident Notification and Reporting

8.2.1 Notification and Reporting to the Planning Secretary

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

Subsequent written notification will be provided to the Planning Secretary within 7 business days in accordance with CoA Condition A36. Subsequent notification must be given and reports submitted in accordance with CoA A35 as follows:

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

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

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

- The Incident Report must include:
  - a summary of the incident;
  - outcomes of an incident investigation, including identification of the cause of the incident;
  - details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence; and
  - details of any communication with other stakeholders regarding the incident.

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

8.2.2 Notification and Reporting to the EPA

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

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

8.3 Emergency Response

Once the EPL has been issued, pollution incidents will also be managed in accordance with a Pollution Incident Response Management Plan (PIRMP). The PIRMP will be prepared and tested in accordance with Environmental guidelines: Preparation of pollution incident response management plans (EPA, 2012).

The Pollution Incident Response Management Plan (PIMRP) identifies the types of environmental emergencies which could occur on the Project during construction and includes:

- A list of key emergency personnel including a list of internal personnel and external agencies names, numbers and specific responsibilities for emergency planning and response.
- Details of how staff are inducted into the emergency response procedures and Plan.
- Details of when the PIRMP will be implemented and who determines when an incident requires use of the PIRMP.
- Definition of incident, incident notification and reporting requirements associated with relevant approvals, permits and licences.
- Include the location of on-site information on hazardous materials including spill containment materials and safety data sheets
- Where appropriate, reference/include a Flood Emergency Management Plan.

The Project team will:

- Prepare to respond by planning actions to prevent or mitigate adverse environmental impacts from emergency situations.
- Respond to actual emergency situations.
- Take action to prevent or mitigate the consequences of emergency situations, appropriate to the magnitude of the emergency and the potential environmental impact.
- Periodically test the planned response actions, where practicable.
- Periodically review and revise the process and planned response actions, after the occurrence of emergency situations or tests.
- Provide relevant information and training related to emergency preparedness and response, as appropriate, to relevant interested parties, including persons working under its control.

The Project team shall maintain documented information to the extent necessary to have confidence that the process is carried out as planned. The Project will provide all records of the environmental emergencies and regulatory action to Inland Rail. All necessary contact numbers will be identified in advance and stored for immediate access should a pollution incident need to be notified. These contact numbers will also be identified in the PIRMP prepared for the Project.

Emergency planning and awareness training will be undertaken for the Project and will include but not be limited to development of a communication protocol, both internal and external, during emergencies,

identified potential environmental emergencies that may occur on the Project, and the response procedures for these emergencies and tests of the emergency response procedures.

8.3.1 Environmental Event Management Process

For environmental events which may occur during Construction of the Project, John Holland will align with the management process defined in Section 6.1 of the *Inland Rail Specification – Construction Environmental Management Framework – A2P (0-0000-900-EEC-00-SP-0002_2)*. Appendix A of the specification sets out the approach to be used by John Holland when managing Environmental Events.

To facilitate and enable the effective management of environmental compliance across the Inland Rail Program, ARTC has implemented an Environmental Management Information System (EMIS) also known as 'Horizon 360, which John Holland will utilise for the Project. John Holland will also use their own incident management system 'Soteria' in parallel to the IRPL system. Soteria, which is our JHG HSES platform for compliance tracking, reporting inspections, incidents, hazards and audits

All inspections, incidents and hazards will be uploaded/recorded in Soteria along with any corresponding corrective action items or NCRs. It allows the user to complete real time inspections and incident reporting through mobile devices or later via the online portal. Sharing information from Soteria to IRPL will be efficient through the use of the export function, so that IRPL can have copies of reports undertake.

8.4 Incident Investigation

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

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

Information will be captured in the Project's incident management software. Where there are lessons learnt from the investigation or current procedures are identified as being ineffective, the CEMP will be revised by the Project Environment and Sustainability Manager to include the improved procedures or requirement.

9 Monitoring, Inspections and Review

Key characteristics of the Project activities which have an impact on the environment will be regularly monitored and measured. This may include issue-specific environmental monitoring, recording of information to track performance, monitoring controls, and level of compliance with objectives and targets.

Regular compliance activities, such as inspections, observations and monitoring will be undertaken throughout construction of the Project. Subcontractor works will be included in inspections, observations, monitoring, and audits as appropriate

9.1 Environmental Inspections

Regular monitoring and inspections will be undertaken in the lead up to, during and following construction. Monitoring and inspections form a fundamental aspect of ongoing Project risk analysis and will include, but not be limited to those outlined in Table 9-1. Where aspect specific inspections are required (e.g. pre and post rainfall inspections) these will be covered in the specific Sub-Plans.

All environmental inspection reports are to be closed out in the agreed timeframes, actions are to be recorded in an action register. Copies of all reports are to be kept by the Project alongside the Project records.

If any maintenance and/or deficiencies in environmental controls or in the standard of environmental performance are observed, they will be recorded on the checklist form. Records will also include details of any maintenance required, the nature of the deficiency, any actions required and an implementation priority. Actions will be closed out in accordance with the identified priority and evidence of close out would be kept on file.

Table 9-1 Environmental Inspection Requirements

Inspection Type	Frequency	Standards / Form	Reporting	Responsibility
Internal Inspections				
Environmental site inspection and post-rainfall inspections	Weekly and post rainfall inspections	Weekly Environmental Inspection Checklist	Closed out Weekly Environmental Inspection Checklist	Project Environment Team
Pre and Post rainfall inspections i.e. >20mm forecast or received within a 24 hour period – refer to the SWMSP for further details.	Prior and post wet weather event	Environmental Checklist	Closed out Weekly Environmental Inspection Checklist	Project Environment Team
Plant / equipment inspections	Regularly or in accordance with manufacturer's specifications and Biosecurity Management Sub-plan	POEO Act Biosecurity Act	Plant and vehicle inspection logs Vehicle hygiene inspection checklist Vehicle Hygiene Register	Mechanical Supervisor and Operators
Visual surveillance	Daily during activities with high environmental risk	Project EMS	Foreperson's Logbook / Site Diary	Foreperson
Shutdown Environmental inspections	Prior to site shut down (e.g. Christmas period)	Project EMS	Inspection Checklist	Project Environment Team
Sustainability inspections	Weekly	Sustainability Checklist	Closed out Sustainability Checklist	Project Environment and Sustainability Team
Erosion and Sediment Control Inspection	Fortnightly or dependant on risk Monthly, and as required	ERSED Report	Construction Soil and Water Management Sub-plan	Project Environment team supported by a Certified Practitioner in Erosion and Sediment Control as required.
Pre and post clearing inspections	Prior to and following clearing activities	Vegetation Clearing Permit Post Clearing Report	Completed Vegetation Clearing Permits and Post Clearing Reports	Project Environment Team supported by an Ecologist as required
Post-flood inspection	Following a flood event where flood waters enter or impact a work area	Environmental Checklist	Closed out Environmental Checklist	Project Environment Team
External Inspections				
EPA and other agency inspections	Determined by EPA and other agencies	Determined by EPA and other agencies	Determined by EPA and other agencies	EPA and other agencies as applicable
ER Site Inspection	Fortnightly or as determined based on risk level	Environmental Representative Protocol	ER Inspection Report ER Monthly Report	ER
Inland Rail Inspections	Fortnightly or as determined based on risk level	N/A	Environmental Inspection checklist / notes	Inland Rail

9.1.1 Action Tracking Register

All actions identified during environmental inspections will be tracked in an action tracking register and closed out within the required timeframes by the allocated personnel. The register will list the required action, date raised, status, and close out date. This register will be updated by the Project Environmental Team and monitored by the Environment and Sustainability Manager for on-time completion.

9.1.2 ER and Inland Rail Inspections

The ER and Inland Rail Project Managers (or delegates) and Inland Rail Principal Environment Advisor (or delegate) will carry out regular inspections of work sites and critical activities throughout construction of the Project. Inspections by the ER and inland Rail will typically occur on a fortnightly basis depending on the complexity and anticipated risks associated with the stage of construction. Inspections will be carried out in accordance with the Inland Rail inspection procedure.

The Project Environment and Sustainability Manager (or delegate) and Project Engineers / Construction Manager / Site Supervisor will participate in all ER and Inland Rail inspections and will maintain appropriate records. Deficiencies and required actions will be analysed and prioritised at the completion of the inspection and timeframes for implementation of corrective actions agreed in accordance with the Inland Rail inspection procedure. Timeframes for the close out of issues will be discussed at the end of the inspection and nominated in the inspection form.

Inland Rail may authorise environmental specialists as agents of Inland Rail to enter the Project site for the purposes of surveillance or inspection and to attend site meetings to discuss environmental aspects of the Project.

9.1.3 Inspections by EPA and other External Agencies

The Project Environment and Sustainability Manager (or their delegate) will notify Inland Rail as soon as practical of any external agency inspections should they occur. prepare a report on each occasion that the site is visited by the EPA and/or other relevant agencies. The report will advise Inland Rail of the purpose and outcome of the EPA and/or other relevant agencies visit, and of all actions taken by John Holland in response to the EPA visit and/ or other relevant agencies. The report will be provided to Inland Rail following the inspection.

9.2 Environmental Monitoring

Monitoring will be undertaken during Construction to validate the impacts predicted for the Project, to measure the effectiveness of environmental controls and implementation of the CEMP and to address approval requirements. The monitoring requirements for required aspects during the construction phase of the Project are included in the relevant issue-specific environmental management plans and summarised in Table 9-2 **Construction Phase Environmental Monitoring Required by Project Approval**

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Table 9-2 Construction Phase Environmental Monitoring Required by Project Approval

NSW CoA and UMM	Description	Relevant plan	Reporting requirements
CoA C27(a) NV-2	Noise and vibration monitoring	Construction Noise and Vibration Management Sub-plan	See details contained in Appendix B
CoA C27(b) CoA E84 WQ-2	Surface water monitoring program	Construction Soil and Water Management Sub-plan	See details contained in Appendix E

NSW CoA and UMM	Description	Relevant plan	Reporting requirements
CoA C27(d)	Traffic, transport and access Management monitoring program	Traffic, transport and access Management Sub-plan	See details contained in Appendix D
E10 (d) NV-3	Monitoring of overpressure and ground vibration	Blasting Management Strategy	. A Blasting Management Strategy will be developed prior to blasting, which will include a monitoring program for monitoring overpressure and ground vibration. The strategy will be submitted to the Planning Secretary for approval no later than one (1) month prior to the commencement of blasting
GW-4 GW-5	Groundwater Monitoring	Groundwater Mitigation and Management Plan	See details contained in Appendix D

Each Construction Monitoring Program (CMP) must have consideration of Specific, Measurable, Achievable, Realistic and Timely (SMART) principles as required by CoA Condition C28 and will provide:

- details of baseline data available
- details of baseline data to be obtained and when
- details of all monitoring of the CSSI to be undertaken
- the parameters of the CSSI to be monitored
- the frequency of monitoring to be undertaken
- the location of monitoring and reasons for choosing the location
- the reporting of monitoring results and analysis results against relevant criteria
- details of the methods that will be used to analyse the monitoring data
- procedures to identify and implement additional mitigation measures where the results of the monitoring indicate unacceptable project impacts
- any consultation to be undertaken in relation to the monitoring programs.

The Surface water monitoring program will be prepared and submitted to and approved by the Planning Secretary before construction in accordance with the requirements of CoA Conditions E84 including:

- identify surface water monitoring locations, frequency and duration at discharge points and selected watercourses where works are being undertaken;
- identify surface water monitoring parameters;
- include water quality objectives, parameters and criteria from documents listed in Condition A1;
- monitoring of operational meters installed, recording and reporting to Natural Resources Regulator, in accordance with the relevant requirements of the *NSW Non-Urban Water Metering Policy* (DPIE, 2020) and clause 21(6) of the *Water Management (General) Regulation 2018*.
- monitoring to ensure water quality complies with relevant drinking water criteria from the *National Water Quality Management Strategy Australian Drinking Water Guidelines 6 2011* (National health and Medical Research Council 2017)

- monitoring geomorphological changes downstream of water treatment plant(s) (where required) and on watercourses' (at locations where the velocity QDL is exceeded or there is active erosion) physical structure on at least four cases of inundation to ensure mitigation measures are achieving desired outcomes;
- trigger points for responding to any monitored changes which adversely impact on baseflows of creeks in the vicinity of the CSSI, including the implementation of additional protection measures to address these changes and their associated timing (trigger points must be defined and designed as part of the Program in consultation with DCCEEW Water);
- methods for providing the data collected to the relevant water authority where discharges are directed to their assets
- a method for providing the surface water monitoring data to DCCEEW Water every six months during construction and for a minimum period of two years from commencement of operation or as otherwise agreed with the Secretary.

The Noise Monitoring Program must be prepared and implemented in accordance with the requirements of Approved Methods for the Measurement and Analysis of Environmental Noise (EPA)

As per CoA Condition C32, the Construction Monitoring Programs will be endorsed by the ER and submitted to the Planning Secretary for approval at least one (1) month before commencement of construction. CMP(s) not requiring the Planning Secretary's approval, but requiring ER endorsement, must be submitted to the ER no later than one (1) month before the commencement of construction (per CoA Condition C33).

The construction monitoring programs, as the ER has endorsed, including any minor amendments approved by the ER, will be implemented for the duration of construction and for any longer period set out in the monitoring program or specified by the Planning Secretary, whichever is the greater.

The results of the CMP(s) must be made publicly available in the form of a Construction Monitoring Report at the frequency identified in the relevant CMP.

Where a non-conformance is detected or monitoring results are outside of the expected range and are directly attributable to the Project (i.e., are influenced by factors under the direct control of the Project e.g., noise from construction equipment), the process described in the respective monitoring program is to be followed. Steps in the process will typically include:

- Analysis of the results by the Environment and Sustainability Manager in more detail with a view of determining possible causes for the non-conformance
- Site inspection by the Environment and Sustainability Manager (or delegate)
- Advising relevant personnel of the problem
- Identifying and agreeing on actions to resolve or mitigate the non-conformance
- Implementing actions to rectify or mitigate the non-conformance.

A non-conformance report may be issued by the Project Environment and Sustainability Manager if it is found to be construction related. The nature of the non-conformance will be assessed against the criteria detailed in the Project Classification, Notification and Reporting requirements identified in Section 8.1 and 8.2.

The ER, Inland Rail Project Manager and Project Environment and Sustainability Manager (or delegate) will be advised of any non-conformances from monitoring and details will be reported within the Monthly Environmental Reports and Construction Monitoring Reports.

All environmental monitoring equipment will be maintained and calibrated according to manufacturers' specifications and appropriate records kept.

9.3 Environmental Non-Compliances and Non-Conformances

9.3.1 Environmental Non-Compliance

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

- An occurrence, set of circumstances or development that is a breach of the approval (SSI-9406 Planning Approval Table of Terms and Definitions).
- For auditing purposes, the independent auditor has determined that one or more specific elements of the conditions or requirements have not been complied with within the scope of the audit.
- Failure to comply with any Commonwealth or NSW CoA, UMM, licence condition (where applicable), permit or any other statutory approval relevant to the activity and/or area where the activity occurs.
- Failure to comply or conform with the processes in this CEMP or any of the approved CEMP Sub-plans is a non-compliance with the Approval (SSI-9406).

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

In accordance with NSW CoA A36, the Planning Secretary must be notified via the Major Projects Website within 7 days after becoming aware of the non-compliance. The notification must identify the CSSI (including the project number and the name of the CSSI if it has one), set out the condition/s that is non-compliant, the nature of the breach; the reason for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance. The ER will also be informed of any non-compliance.

As specified in NSW CoA A37, a non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.

The ER will also include non-compliances within the Environmental Representative Monthly Report.

9.3.2 Non-conformances and Opportunities for Improvement

A non-conformance is the failure to comply with an environmental requirement, standard or procedure, but does not include non-compliances as defined Environmental Management Plan Guideline for Infrastructure Projects (Department of Planning, Industry and Environment, 2020). A non-conformity is an established process under AS/NZS ISO14001 Environmental Management Systems and is defined therein as non-fulfilment of a requirement of the ISO14001 standard or additional EMS requirements that an organisation establishes for itself. The John Holland EMS is certified as complying with the requirements of AS/NZS ISO 14001:2016.

Non-conformances may be identified through the review of compliance (refer to Section 9), environmental auditing (refer to Section 9.4) or incident management (refer to Section 8). Where non-conformances/improvement opportunities are identified, they will be communicated to the Project Environment Team. This will then be recorded in an environmental action list that will be issued to the relevant Project team personnel for action. Actions will be assigned an implementation priority in a collaborative way by the Project Environment Team based on the environmental risk. Timeframes will be set to ensure any damage incurred is rectified and any chance of recurrence is eliminated as soon as

practicable. Following corrective action, the Project Environment Team will close out the non-conformance.

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

9.3.3 Corrective and Preventative Actions

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

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

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

The Project Environment and Sustainability Manager will also complete a periodic review of environmental non-conformance records to identify trends and root causes and suggest preventative actions that are warranted at an organisational level. Trends relating to environmental non-conformances will also be discussed in regular Project meetings, including with the ER and Inland Rail, where recurring issues may indicate the need to take preventative actions.

Where assessed by the Project Environment and Sustainability Manager as necessary, a preventive action will be raised and implemented. Where required, the Project Director will review and approve preventative actions.

Reviews will also identify lessons learned that will be shared within the Project, Inland Rail, and the construction industry more broadly, where appropriate.

9.3.4 Communicating Corrective and Preventative Actions

The following mechanisms will be used to communicate lessons learned:

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

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

9.3.5 Non-Conformance Reporting and Close-out

Where a non-conformance is detected, a report will be raised in Project's adopted management software. Non-conformances will be documented with the following information:

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

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

9.3.6 Non-Compliance with Commonwealth EPBC Approval

As any non-compliance regarding the Commonwealth Approval (EPBC 2018/8233) relate to Biodiversity, details of the reporting process for non-compliances under the Commonwealth Approval have been incorporated into the Construction Biodiversity Management Sub-plan.

In accordance with Commonwealth CoA Condition 35, Inland Rail will notify DCCEEW in writing of any non-compliance with the conditions or non-compliance with the commitments made in plans. The notification must be submitted within two (2) business days of becoming aware of the non-compliance. Notification must specify the following:

- Any condition or commitment made in a plan which has not been, or may have not been complied with
- A short description of the incident
- The location (if applicable, including co-ordinates), date and time of the incident.

Additionally, per Commonwealth CoA Condition 36, Inland Rail will provide DEECCW with details of the non-compliance within twelve (12) business days of becoming aware of the non-compliance. Details to be provided include:

- All corrective measures and investigations which the approval holder has already taken in respect of the incident
- The potential impacts of the incident
- The method and timing of any corrective measures that the approval holder proposes to undertake to address the incident
- Any variation of these conditions or revision of a plan that will be required to prevent recurrence of the incident and/or to address its consequences.

The Project Environment and Sustainability Manager (or delegate) will provide Inland Rail with information necessary to facilitate these above notification requirements.

9.4 Auditing

9.4.1 Internal Audits

Internal auditing will be undertaken generally on a six-monthly basis throughout the Project. The purpose of auditing is to verify compliance with:

- This CEMP and Sub-Plans.
- Approval requirements (CoA, UMMs).
- Any relevant legal and other requirements (e.g., licenses, permits, regulations, Inland Rail contract documentation).
- Implementation of AMS and ESCPs.

An audit checklist will be developed and amended as necessary to reflect changes to this CEMP, subsequent approvals and changes to Acts, regulations, or guidelines. Note that audit findings may result in the CEMP and Sub-plans requiring updates. All audit findings and associated corrective actions are to be provided to Inland Rail in an audit report.

9.4.2 Independent Audits – NSW Requirements

In accordance with CoA A28 – A33, independent auditors are to be appointed and approved by DPHI. Independent audits will be carried out in accordance with frequency prescribed in the *Independent Audit Post Approval Requirements* (DPE, 2020). Auditing will also be undertaken in accordance with ISO 19011:2014 - Guidelines for Quality and/ or Environmental Management Systems Auditing. Note that audit findings may result in the CEMP and Sub-plans requiring updates.

DPHI may require the initial and subsequent Independent Audits to be undertaken at different times to those specified above, upon giving at least 4 weeks' notice (or timing as stipulated by the DPHI) of the date upon which the audit must be commenced.

John Holland will make suitable facilities available at the site to accommodate the Independent Audit team. Inland Rail will provide the required staff at the site available to assist Inland Rail with the Independent Audits.

The first independent environmental audit will be carried out within 12 weeks of the commencement of construction. Ongoing independent environmental audits will occur at intervals, no greater than 26 weeks from the date of the initial audit or as agreed by the Planning Secretary.

9.4.3 Independent Audits – Commonwealth Requirements

Independent audits of compliance with the Commonwealth CoA will be conducted every five-years in accordance with Condition 37. The independent auditor will be appointed and approved by DPHI in accordance with Condition 38. Completion of the audit, including audit scope, reporting and publication will be completed as per the requirements of Conditions 39 to Condition 45.

As per Condition 42, Independent Audits must be conducted and carried out in accordance with the *Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines* (Commonwealth of Australia 2019).

9.4.4 IRPL Environmental Audits

IRPL (or an independent environmental auditor on behalf of IRPL) may undertake periodic audits of compliance with the CEMP and environmental requirements contained in the Deed. IRPL will provide at least five (5) business days' notice (where appropriate) of a planned audit or inspection. John Holland will ensure that the relevant people identified within the audit notification attend the audit as required.

Additionally, IRPL may, at its discretion, undertake unplanned audits and/or inspections in response to non-conformances, Environmental Events, or upon receiving complaints regarding the Site.

IRPL will arrange third-party independent audits on an annual basis, or as required by the Environmental Management Requirements, during the term of the Deed. The audits will assess compliance with the Project CoA, CEMP and relevant Sub-plans.

9.4.5 Audit Schedule

Internal and Independent Audit requirements are summarised in **Table 9-3**.

Table 9-3 Internal and Independent Audit Requirements

Audit	Requirement	Timing	Responsibility	Recipient
Internal audit	Verify compliance with approval and legal requirements, Inland Rail D&C Specifications and construction documentation	The first audit to be carried out within three months of the commencement of construction and then at six monthly intervals thereafter. The final submitted within five working days of contract completion date.	John Holland environment manager (business unit or another project)	Project Director, Project Environment and Sustainability Manager
Project EMS	Project EMS compliance	Within 12 months of work commencing, Annually thereafter.	John Holland	Project Environment and Sustainability Manager and Project Director
ARTC Audits	To confirm compliance with: • Project EMS Requirements • Requirements of the Inland Rail Deed • CoA • AS/NZS ISO 14001:2016	Within 6 months after the date of the Deed and then once within each 12-month period after the date of the Deed for the duration of the Contractor's Activities	Inland Rail Project Environment and Sustainability Manager	Inland Rail ER
Independent audit (NSW CoA A29)	As detailed in DPE (2020) *Independent Audit – Post Approval Requirements* and summarised above. The independent environmental audits of the Project will be conducted by a suitably qualified, experienced and independent team of experts in auditing and the audit will be documented in an Environmental Audit Report.	The first independent environmental audit will be carried out within 12 weeks of the commencement of construction. Ongoing independent environmental audits will occur at intervals, no greater than 26 weeks from the date of the initial audit or as agreed by the Planning Secretary.	Inland Rail to procure suitably qualified, experienced and independent team of auditors Independent auditor to undertake audit and prepare audit report	Project Director, Project Environment and Sustainability Manager, Inland Rail, DPHI, ER
Independent Audit (Commonwealth CoA Condition 37	Independent Audits must be conducted and carried out in accordance with the *Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines* (Commonwealth of Australia 2019). The independent environmental audits of the Project will be conducted by a suitably qualified, experienced and independent team of experts in auditing and the audit will be documented in an Environmental Audit Report.	The independent audit must be carried out to assess compliance with the conditions of the EPBC Approval every 5 years, aligning with the audit period specified by the approval.	Inland Rail to procure suitably qualified, experienced and independent team of auditors Independent auditor to undertake audit and prepare audit report	Project Director, Project Environment and Sustainability Manager, Inland Rail, DEECCW

9.5 Reporting and Identified Records

Various reports will be prepared to address the requirements of the Infrastructure Approval, commitments under the Environmental Assessment Documentation, Inland Rail D&C Specifications and other reporting needs. Table 9-4 sets out the overarching ongoing reporting requirements for the Project. Additional reporting requirements under the planning approvals, such as those required for site investigations, surveys, strategies and the like are provided in the CEMP Sub-plans. Further reporting requirements will be outlined in the CEMP Sub-plans, including reports, plans, strategies and procedures that will be prepared. Section 9.6.1. outlines the approach to be adopted for document control on the Project.

John Holland will maintain accurate records substantiating all activities associated with the Project or relevant to the conditions of approval, including measures taken to implement all management plans. Records will be made available to DPHI and DCCEEW upon request, within the timeframe nominated in the request.

Table 9-4 Reporting Requirements

Report	Requirement	Timing	Responsibility	Recipient
Reporting under the EPL				
EPL Annual Returns	Report on compliance with EPL including: • Statement of Compliance • Monitoring and Complaints Summary • Statement of Compliance for: - Licence conditions - Load based fee - Requirement to prepare PIRMP - Publish pollution monitoring data - EMS and practices -	Within 60 days of the anniversary of the EPL	Project Environment and Sustainability Manager	EPA
EPL monitoring data	This report will include any monitoring data and analysis as required by the EPL.	Within 10 working days of the end of each calendar month.	Project Environment and Sustainability Manager	Licensee website
EPL complaints register	Complaints related to matters regulated by the EPL will be reported to the EPA in accordance with the EPL.	TBC – in accordance with the EPL once received.	Project Environment and Sustainability Manager	EPA

Report	Requirement	Timing	Responsibility	Recipient
Reporting under the Commonwealth EPBC Approval				
Part B – Administrative conditions				
Annual Compliance Report	The report will include accurate and complete details of compliance and any non-compliance with the NSW approval and commitments made within each plan, a schedule of plans in effect and details of how each plan has been implemented during the reporting period. The report will also include details of any incidents that have occurred. The compliance report will be developed consistent with the requirements of *Annual Compliance Report Guidelines, (Commonwealth of Australia 2023).*	Within 20 business days following the end of each Annual Compliance Reporting (ACR) period	Inland Rail with assistance from the Project Environment and Sustainability Manager	Inland Rail ER DEECCW (for Approval)
Reporting under the NSW Infrastructure Approval				
Part A - Administrative				
ER Monthly Reports (NSW CoA A26(j))	Report of site environmental performance following routine inspections Inputs to the ER monthly report must be provided to the ER monthly under CoA A27 Refer to Section 7.1.3.1	Monthly, and submitted within seven days following the end of each month for the duration of the ER's engagement	ER JHG (inputs)	DPHI Other regulatory agencies Inland Rail (for information)
Independent Environment Audit Report (NSW CoA A32)	Refer to Section 9.4.2 and 9.4.3	First audit to be undertaken within 12 weeks of commencement of construction, and then at intervals, no greater than 26 weeks from the date of the initial audit or as otherwise agreed by the Planning Secretary. Audit reports to be provided within 2 months of undertaking the audit.	Suitably qualified, experienced, independent team of auditors	DPHI (for information) Minister for DCCEEW

Report	Requirement	Timing	Responsibility	Recipient
Notification of incident (NSW CoA A34)	Refer to Section 8	As early as possible and within 24 hours of the incident	Inland Rail Project Environment and Sustainability Manager	DPHI DEECCW (for EPBC related incidents) ER (for information)
Non-Compliance Notification (NSW CoA A36)	Refer to Section 9.3	The Planning Secretary must be notified via the Major Projects Website within seven days after the Proponent becomes aware of any non-compliance.	Inland Rail Project Environment and Sustainability Manager	DPHI ER (for information)
Part C – Construction Environmental Management				
Construction Environmental Monitoring Report (CoA C36, E84)	Refer to Section 9.2	Monitoring Programs – six monthly until operation is fully commenced	Project Environment and Sustainability Manager	ER Planning Secretary (for approval)
Reporting to Inland Rail under the Deed				
Monthly Environmental Report	For incorporation in Project Monthly Reports including environmental statistics (i.e. incidents, regulatory action, complaints on environmental issues), regulatory and authority considerations, monitoring program performance, compliance report and key environmental issues.	Monthly – within five (5) business days to the end of each month or otherwise agreed	Project Environment and Sustainability Manager	Inland Rail
Complaint Reporting	Complaint management and reporting in accordance with the Communication Strategy.	A s specified within Section 7.6.3 of the CEMP and the Communication Strategy. Provided to the ER on a weekly basis (NSW CoA A27(a))	Project Environment and Sustainability Manager JH Community and Stakeholder Manager	Inland Rail ER
Sustainability Reporting	Provide monthly sustainability reporting to Inland Rail via the I2S online reporting tool.	Monthly	Project Environment and Sustainability Manager	Inland Rail

9.6 Records and Document Control

9.6.1 Document Control

All environmental management documents are subject to ongoing review and continual improvement. This includes times of change to scheduled activities or to legislative or licensing requirements. Only the Project Environment and Sustainability Manager, or delegate, has the authority to change any of the environmental management documentation.

The Project, or Inland Rail where relevant, will coordinate the preparation, review, and distribution, as appropriate, of the environmental documents and records. During the Project, the environmental documents and records will be stored at the main site compound and/or electronically.

The Project will implement a document control procedure to control the flow of documents within and between Inland Rail, stakeholders and subcontractors. The procedure will also ensure that documentation is:

- Developed, reviewed, and approved prior to issue.
- Issued for use.
- Controlled and stored for the legally required timeframe.
- Removed from use when superseded or obsolete.
- Archived.

The Project Environment and Sustainability Manager is responsible for maintaining all environmental management documents and records as current at the point of use. The master ‘controlled’ CEMP document will be held within the Project’s document management system, in addition to the current version being available online, where it can be accessed by personnel as necessary. All paper copies of this CEMP will be considered as ‘uncontrolled’. All environmental documentation will be controlled in accordance with the Project document control requirements. Formal submissions will be managed through the Project electronic document management system (Aconex). Other documents and records will be saved in the Project shared drive on SharePoint. Access controls will be applied as appropriate.

9.6.2 Environmental Document Register

A register will be maintained to list the current revision of all environmental documents (Plans, Protocols, Procedures, AMS, Permits and Forms) which will be consistent with the Project naming and numbering protocols. Environmental records will also be maintained and kept as objective evidence of compliance with environmental requirements. Typical records may include:

- Site inspections.
- Audits.
- Formal document reviews.
- Incident and non-conformance reports.
- Compliance tracking reports.
- Induction and training records.
- Documentation as required by performance conditions, approvals, licences, and legislation.
- Superseded versions of environmental documentation.
- Monitoring data.
- Complaints and associated records of communication
- Correspondence with public authorities

- Environmental procedures and plans
- Minutes of CEMP and construction environmental management system review meetings and evidence of any action taken.
- Additional management documents and requirements as identified in the CoA, UMMs and Inland Rail Specifications.
- Regulator correspondence (formal and informal – e.g. emails/verbal and diary notes etc.).

Only the Project Environment and Sustainability Manager has the authority to change the John Holland environmental management documentation. This documentation will be held for five years after the actual completion date and be available to Inland Rail and EPA upon request.

9.6.3 Hold Points

Hold Points will be implemented on this Project for the purpose of minimising the likelihood of an incident when undertaking specific construction activities that have a greater environmental risk. Construction Environmental Minimum Standards and Hold Points are included in the *Inland Rail Specification: Construction Environmental Management Framework – A2P (00-0000-900-EEC-00-SP-0002_2)* and have been adopted for the Project. Minimum Standards for construction works will be addressed in the respective Sub-plan. Hold Points that apply to activities are included in Table 9-5.

Table 9-5 Hold Point Schedule

Hold Point	Releasing Authority	Record
All Approvals required for commencement of early works or other works (as the case may be) have been obtained prior to commencing those works.	ARTC / Inland Rail Principal Environment Advisor (or Delegate)	Submission of evidence to ARTC 5 days before commencing works, including a list of applicable approval requirements (including under any CoA) and a statement of how those requirements have been satisfied
Outside Hours Work Permit for proposed out of hours works	ARTC / Inland Rail Principal Environment Advisor (or Delegate)	Submission of evidence to ARTC 5 days before commencing works
Relaxation of impact to sensitive receivers	ARTC / Inland Rail Principal Environment Advisor (or Delegate)	Submission of evidence to ARTC 5 days before commencing works
Flora and Fauna No Go Zones assessed and protected/delineated prior to commencing any relevant works	ARTC / Inland Rail Principal Environment Advisor (or Delegate)	Submission of evidence to ARTC 5 days before commencing works
Cultural Heritage No Go Zones have been assessed, protected/delineated and (where relevant) salvaged prior to commencing any works	ARTC / Inland Rail Principal Environment Advisor (or Delegate)	Submission of evidence to ARTC 5 days before commencing works
Disturbance footprint/Construction Impact Zone to be delineated by a surveyor before works commence.	ARTC / Inland Rail Principal Environment Advisor (or Delegate)	Submission of evidence to ARTC 5 days before commencing works

The works will not commence until the Hold Point has been approved or released by the releasing authority. All hold points submitted and released will be recorded on the site's Environmental Hold Points Register.

9.7 Review and Improvement

9.7.1 Management Review

Management reviews are undertaken as part of the continual improvement and ongoing risk analysis process as well as contractual requirements. The management review can consist of group reviews, or executive reviews.

A group review is initiated by the Project Environment and Sustainability Manager and includes relevant Project team members and stakeholders. The environment team also meet at least quarterly, or at other pre-determined periods, to review environmental management issues for the Project. The environment team meeting can be run in conjunction with a wider group meeting if the Project Environment and Sustainability Manager deems it appropriate.

The environment group meetings agenda may include:

- A review of the aspects and impacts register, CEMP and Sub-Plans, risks, legal register, and environmental induction.
- Consideration of monitoring, inspection, and audit results.
- Consideration of incidents and any lessons learnt.
- Consideration of any new regulatory issues.
- A review of the effectiveness of erosion and sediment controls.
- Consultation outcomes with proponents of nearby developments are to be considered and Project management documents including the CEMP are to be updated as required.
- Feedback from management reviews.

An executive review will involve the management team. This review will be held every 12 months and will include a review of:

- Effectiveness of environmental management documentation implementation.
- Management effectiveness.
- Potential improvements to the environmental management documentation.
- Adequacy of resources.
- Findings of audits.
- Environmental objectives and targets.
- Environmental performance.
- Compliance with legal and other requirements.
- Critical non-compliance or repeated non-compliance.
- Organisation changes.
- Effectiveness of training and inductions.

The outcomes of the group and executive reviews could include amendments to this CEMP and related documentation, revision to the Project's environmental management system, risk assessment review and re-evaluation of the Project objectives and targets, personnel training, and education opportunities

9.7.2 CEMP Revision and Change Management

The respective Project Management Teams will review the status and adequacy of the Project EMS, including this CEMP. Each management plan must be reviewed and, where necessary, updated every six (6) months or as otherwise required by the Project Management Requirements or requested by Inland Rail in accordance with the design and construct deed. The objective of the review will be to ensure that it meets current Inland Rail and the Project requirements as well as relevant environmental standards.

The Project will undertake an internal audit within the first three months from commencement of construction and then annually for the CEMP and associated Sub-Plans and Construction Monitoring Programs.

Additionally, continual review and improvement of the CEMP will occur in response to:

- Issues raised during environmental inspections and/or monitoring.
- Change to scope of work.
- Changes in legislation.
- Environmental incidents.
- Environmental non-compliances.

The CEMP and an analysis of key environmental risks, will be reviewed during Project construction in response to:

- Changes to the Project EMS.
- Non-compliances, incidents, or recurring issues.
- In response to internal or external audits.
- Changes in legislation.
- Changes in the risk assessment.
- Changes in environmental management practices or technology.

9.7.3 Minor Amendments

Minor amendments to the CEMP, Sub-Plans and Construction Monitoring Programs will typically include those that are editorial in nature or are considered minor in their environmental and community impacts and do not compromise the ability of the Project to meet approval or legislative requirements. Under CoA Condition A26(i), the ER is authorised to:

> *"Consider any minor amendments to be made to the CEMP, CEMP Sub-plans and Construction Monitoring Programs that comprise updating or are of an administrative nature and are consistent with the terms of this approval and the CEMP, CEMP Sub-plans and Construction Monitoring Programs approved by the Planning Secretary and, if satisfied such amendment is necessary, approve the amendment. This does not include any modifications to the terms of this approval".*

Examples of minor amendments to the CEMP and Sub-Plans are listed in Table 9-6, however, should not be considered an exhaustive list and it will be subject to the ER's discretion under CoA Condition A26(i).

Table 9-6 Examples of Potential Amendments to Approved CEMP and Related Documents

Amendment Type	Description / Justification
Administrative – Changes to company logos.	No material changes to content of documents.
Administrative – Changes to staff, company and/or agency/authority names	No material changes to content of documents.
Administrative – terminology (legislative name changes).	No material changes to content of document, so long as the terminology change is not associated with legislation, processes or guidelines that require a material change to mitigation measures described in the CEMP and related documents
Minor – Updates required due to changing government agency policies and procedures	No material changes to content of document, so long as the policy or procedure change does not result in material change to mitigation measures described in the CEMP and related documents.
Minor – Updates required in response to periodic audits as per EMS.	No material changes to content of document. Change required as a process of the EMS and approved CEMP process and should not delay the Project. Changes not considered material in nature
Minor – Updates required in response to non-compliance or incident investigation.	No material changes to content of document. Change required as a process of the EMS and approved CEMP process and should not delay the Project. Changes not considered material in nature.
Minor – Changes in construction methodology that are consistent with the terms of the approval, including impacts on the environment when considered individually or cumulatively.	No material changes to content of document. Changes not considered material in nature.
Minor – Amendments to documentation in response to an assessment.	No material changes to content of document. Changes not considered material in nature.

Where a minor amendment is proposed, the Project Environment and Sustainability Manager will provide justification to the ER. Upon determination that the change can be considered minor, the document will be revised and will then be issued to the ER for approval of the changes (with a copy to DPHI for information once approved). Where the ER deems the change not a minor amendment, the CEMP and/or sub-plans will be provided to the Planning Secretary for approval.

9.7.4 Project Refinement

9.7.4.1 Design Refinement and Changed Circumstances

Changes to the Project may result from detailed design refinements or changed circumstances throughout construction. Any design changes or changes in scope of works must be communicated to the Project Environment and Sustainability Manager who will determine the appropriate pathway for assessment and / or approval (as the case may be) in consultation with Inland Rail and the ER.

If required, the CEMP and Sub-plans will be updated by way of a minor change approved by the ER (as required) to incorporate any additional potential environmental impacts or mitigation or management measures that resulted from the proposed changes. Affected personnel will be made aware of changes before the relevant works commence through toolbox talks, daily pre-start meeting, HSE committees or forums arranged to specifically address changes.

9.7.4.2 Consistency Assessments

A Consistency Assessment will be prepared to determine if a change is consistent with the Project approval. Consistency Assessments will be developed in consideration of the Inland Rail Specification: *NSW Consistency Assessments (0-0000-902-EEC-00-SP-0001_1).* The purpose of this consistency assessment is to:

- Describe the proposed change relative to the Project approval
- Assess the environmental impacts and risks associated with the proposed change relative to the Project approval
- Determine if the proposed change is consistent with the Project approval or whether further approval is required in the form of a Modification.

Types of Consistency Assessments required by the Project include:

Small scale Consistency Assessment

- An activity that may be temporary in nature (< 1 week)
- Works that require a minor or temporary disturbance outside the construction boundary
- Equipment to be used will be consistent with current scope being completed
- Works will be undertaken during approved Project hours as per Condition E1 and E2.

Minor Consistency Assessment

- An activity that may extend up to several weeks of work in one location
- Includes refinements or additions to project scope that may require additional consultation or documentation.
- May involve impacts to the receiving environment, but impacts are manageable under mitigation measures and controls already documented in the CEMP and sub-plans.

Major Consistency Assessment

- An activity that may be ongoing or long-term (>3 months)
- Includes substantial modifications to design, construction methodology, or location that may affect multiple environmental factors
- Likely to involve impacts requiring further detailed assessment, mitigation planning or consultation with external agencies.

For all Consistency Assessments developed, the Inland Rail Principal Environment Advisor will approve all refinements that are deemed consistent with the Project Approval, where appropriate. A copy of this assessment will be provided to the ER to allow the ER to perform all functions required in accordance with Condition A27(b) prior to the commencement of the work that was assessed.

Where a Major Consistency Assessment is required to be undertaken, and the proposal is determined to be consistent with Project Approval but one of the following actions is required, the CEMP and relevant sub-plans will be updated and endorsed by ER and re-submitted to DPHI for approval:

- Additional mitigation measures are required to ensure consistency with the terms of the Project Approval (additional to the mitigation measures already defined in the CEMP and sub-plans).
- An amendment to the Environmental Management System (this CEMP) is required to undertake the works, or
- As requested or specified by the Planning Secretary.

9.7.4.3 Modification

Should a Project modification be required (i.e., the impacts are of a nature and scale that it is not considered consistent with the Project Approval) the ER will be informed and a modification application under Section 5.25 of the EP&A Act prepared and lodged by Inland Rail to DPHI for determination.

10 Appendices

Appendix A1 - Legal Requirements

Act	Activity / aspect	Requirement	Reference	Division 5.2 applicability	Where addressed
General					
Environmental Planning and Assessment Act 1979	All	The Project is subject to an approval under Division 5.2 of the Environmental Planning and Assessment Act 1979 (EP&A Act) as Critical State Significant Infrastructure (CSSI) (SSI-9364). Comply with the terms Minister for Planning's approval for the project. Obtain the Minister's approval for any project modifications that are not consistent with the planning approval.	S5.14 S5.25	Yes	This CEMP and all sub-plans
Water					
Water Management Act 2000 With the exception of controlled activity approvals, the *Water Management Act 2000* (WM Act) only applies in relation to those water sources covered by operational water sharing plans – these areas cover most of the State's major regulated river systems.	Water access and use	Do not take water from a water source (a lake, river or estuary or place where water occurs naturally on or below the surface of the ground and includes coastal waters) without an access licence. Do not use of water on land (unless supplied by a water utility, irrigation corporation etc or in accordance with basic landholder rights) without a water use approval.	S56 S60A S89 S91A	No	Soil & Water Management sub-plan
Water Management Act 2000	Water management works	Do not construct/use a water supply work, drainage work or flood work without the appropriate approval.	S90 S91B S91C S91D	No	Soil & Water Management sub-plan

Act	Activity / aspect	Requirement	Reference	Division 5.2 applicability	Where addressed
Water Management Act 2000	Waterfront land	Do not deposit material, excavate, or remove material within a watercourse bank, shore or bed, or on land 40 metres inland, or interfere with the likely flow of water to such a body, without a controlled activity approval.	S91	No Public authorities are exempt from the need to obtain a controlled activity approval. Water Management (General) Regulation 2011 (cl.38)	Soil & Water Management sub-plan
Water Management Act 2000	Water access and use	Do not take water from a water source (a lake, river or estuary or place where water occurs naturally on or below the surface of the ground and includes coastal waters) without an access licence. An aquifer interference approval/licence may be required under Section 91(3) if construction requires intersection of a groundwater source	S91	Yes	Soil & Water Management sub-plan
Water Management (General) Regulation 2018	Water access and use	Exemptions for the requirement of a water access license for roads authority in relation to water required for road construction and road maintenance as listed in Clause 2 of Schedule 4. Exemptions for the requirement of a water access license for any public authority lawfully engaged in the use of water for dust suppression—in relation to water required for that purpose as listed in Clause 5 of Schedule 4	S21(1) Schedule 4 (2) Schedule 4 (5)	Yes	Soil & Water Management sub-plan
Water Act 1912	Surface water	Obtain a licence or permit for construction or use of ‘work’ for purposes including the taking and using of water	S21B	Yes	Soil & Water Management sub-plan

Act	Activity / aspect	Requirement	Reference	Division 5.2 applicability	Where addressed
Note that this Act is being progressively repealed by the WM Act. With the exception of controlled activity approvals, the WM Act only applies in relation to those water sources covered by operational water sharing plans – these areas cover most of the State's major regulated river systems.	Groundwater	Obtain a licence where interference with groundwater is likely to occur.	S112 S121A	S112 does not apply to the Crown. Inland Rail is therefore not required to obtain a licence under this provision.	Soil & Water Management sub-plan
	Floodplains	Obtain an approval for controlled works. These include works which occur on a designated floodplain, which can prevent land from being flooded or which can affect water flow to or from a river or lake.	91D	An exemption in relation to roads potentially applies – see clause 41E of the *Water Management (Regulation) 2011*.	Soil & Water Management sub-plan
Protection of the Environment Operations Act 1997	Water pollution	Do not cause water pollution (other than to a sewer), except in accordance with the conditions of an Environment Protection Licence.	S120 S122	Yes	Soil & Water Management sub-plan
Noise					
Protection of the Environment Operations Act 1997	Plant maintenance and operation	Do not operate plant if it emits noise caused by poor maintenance or operation.	S139	Yes	Noise & Vibration Management sub-plan
Protection of the Environment Operations Act 1997	Materials management	Do not cause noise by failing to properly and efficiently deal with materials.	S140	Yes	Noise & Vibration Management sub-plan
Contaminated material					

Act	Activity / aspect	Requirement	Reference	Division 5.2 applicability	Where addressed
Protection of the Environment Operations Act 1997	Land pollution	Do not cause or permit land pollution other than under authority of a licence or regulation. (However it is not a land pollution offence to place virgin excavated natural material or lawful pesticides and fertilisers on land, or by placing matter on land that has been notified to the EPA as an unlicensed landfill and which is operated in accordance with the regulations.)	S142A – S142E	Yes	Contaminated Lands Management sub-plan
Contaminated Land Management Act 1997	Reporting contamination	Notify the EPA if; Contaminants exceed thresholds contained in guidelines or the regulations where contamination has entered or will foreseeably enter neighbouring land, the atmosphere, groundwater or surface water. Contaminants in soil are equal to or exceed guideline levels with respect to the current or approved use of the land. Contamination meets other criteria that may be prescribed by the regulations.	S60	Yes	Contaminated Lands Management sub-plan
Biodiversity					
Biodiversity Conservation Act 2016	Fauna	Do not harm any animal that is; of a threatened species, that is part of a threatened ecological community or is a protected animal, unless authorised under other legislation (e.g. planning approval).	S2.1 S2.8	Yes	Biodiversity Management sub-plan
Biodiversity Conservation Act 2016	Habitat	Do not damage habitat of a threatened species or ecological community unless authorised under other legislation (e.g. planning approval).	S2.4 S2.8	Yes	Biodiversity Management sub-plan
Biodiversity Conservation Act 2016	Biodiversity	Do not damage declared areas of outstanding biodiversity value unless authorised under other legislation (e.g. planning approval).	S2.3 S2.8	Yes	Biodiversity Management sub-plan

Act	Activity / aspect	Requirement	Reference	Division 5.2 applicability	Where addressed
Biodiversity Conservation Act 2016	Flora	Do not pick a plant that is; of a threatened species, that is part of a threatened ecological community or is a protected plant, unless authorised under other legislation (e.g. planning approval).	S2.2 S2.8	Yes	Biodiversity Management sub-plan
Biosecurity Act 2015	Weeds	Manage weeds on site in accordance with the General Biosecurity Duty to prevent, eliminate and minimise biosecurity threats.	S22	Yes	Biodiversity Management sub-plan
Biosecurity Regulation 2017	Pests and Diseases	Notify the presence any pest or disease listed in Schedule 1 of the *Biosecurity Regulation 2014*, within one working day after suspecting or becoming aware of the pest or disease.	Regulation cl.7 Schedule 1	Yes	Biodiversity Management sub-plan
Fisheries Management Act 1994	Dredging or reclamation	Provide the Minister for Primary Industries 28 days-notice of planned dredging or reclamation work.	S199	Yes	Biodiversity Management sub-plan
Fisheries Management Act 1994	Fish passage	Do not block fish passage without a permit	S219	No	Biodiversity Management sub-plan
Environment Protection Biodiversity Conservation Act, 1999 (Commonwealth)	Flora and fauna conservation	Do not kill, injure or take a member of a listed threatened species without a permit.	Part 13	Yes	Biodiversity Management sub-plan
		Comply with the terms of any EPBC Act approval for the project.		NA	Biodiversity Management sub-plan
Waste					

Act	Activity / aspect	Requirement	Reference	Division 5.2 applicability	Where addressed
Protection of the Environment Operations Act 1997	Littering	Do not litter in a public place or an open private place. Do not litter from a vehicle. Only deposit advertising material in receptacles provided for mail or newspapers or under the door of the premises. Do not deposit advertising material on or in vehicles.	Part 5.6A	Yes	Waste Management Plan
Protection of the Environment Operations Act 1997	Waste and transportation	Do not undertake a scheduled waste activity unless in accordance with an EPL. A licence must be obtained when construction and demolition wastes are applied to land under certain circumstances. This includes the reincorporation of crushed road base material back into roads and the placing of excess fill material onto properties. A licence is not required if the material: • Is VENM. • Does not exceed 200 tonnes in the Sydney, Newcastle and Wollongong areas, or 20,000 tonnes outside these areas. • Is covered by a "general exemption". Current exempted materials are ENM, recycled aggregates and raw mulch. These exemptions are conditional and require some chemical testing of materials before they are placed onto land. • A licence must be obtained if more than 2,500 tonnes (or cubic metres) is stored on a stockpile site at any one time, or more than 30,000 tonnes of waste is received per year from off site.	Part 3.2 Schedule 1	Yes	Waste Management Plan Contaminated Land Management Plan

Act	Activity / aspect	Requirement	Reference	Division 5.2 applicability	Where addressed
		Only transport waste to a facility that can lawfully accept the waste.	S143	Yes	
		Do not dispose of waste in a manner that harms or is likely to harm the environment.	S115	Yes	Waste Management Plan Contaminated Land Management Plan
Protection of the Environment Operations (Waste) Regulation 2005	Waste and transportation	Comply with general requirements for the transport of waste. For example, any vehicle used by the person to transport waste must be kept in a clean condition and be maintained so as to prevent spillage of waste. For some wastes only licensed transporters can be used.	Regulation cl.49	Yes	Waste Management Plan
		Comply with record keeping requirements in relation to the transport of certain types of waste.	Regulation Part 3	Yes	Waste Management Plan
Protection of the Environment Operations (Waste) Regulation 2014 (POEO Regulation)		Any excavations on former landfill sites must be approved	Regulation 110a	Yes	Waste Management Plan
Heritage					
Heritage Act 1977	Heritage	Do not undertake an activity that will affect a place, building, work, relic, moveable object or precinct which is subject to an Interim Heritage Order or is listed on the State Heritage Register without approval from the Heritage Council.	S56-57	No	Heritage Management sub-plan
		Do not disturb or excavate land with knowledge or reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed; or Do not disturb or excavate land on where a relic has been discovered or exposed.	S139	No	Heritage Management sub-plan

Act	Activity / aspect	Requirement	Reference	Division 5.2 applicability	Where addressed
		Notify the heritage Council on discovery of a relic	S146	Yes	Heritage Management sub-plan
National Parks and Wildlife Act 1974	Aboriginal places and objects	Do not harm or desecrate an Aboriginal object or Aboriginal place without consent.	S86 S90	No	Heritage Management sub-plan
		Notify the NPWS within reasonable time of becoming aware of the location or discovery of certain Aboriginal objects.	S89A	Yes	Heritage Management sub-plan
Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Commonwealth)	Protection of areas and objects	Report any discovery of Aboriginal remains to the Federal Minister for the Environment and Heritage.	S20	Yes	Heritage Management sub-plan
		Comply with the provisions of any declaration in relation to a significant Aboriginal area or object.	S22	Yes	Heritage Management sub-plan
General					
Protection of the Environment Operations Act 1997	Harming the environment	Do not risk harming the environment by wilfully or negligently: • Disposing of waste unlawfully. • Causing any substance to leak, spill or otherwise escape (whether or not from a container); or • Emitting an ozone depleting substance.	S115 S116 S117	Yes	Waste Management Plan
Protection of the Environment Operations Act 1997	Control equipment	Properly and efficiently maintain and operate any installed pollution control equipment (including monitoring devices).	S167	Yes	This CEMP
Protection of the Environment Operations Act 1997	Notification of pollution incidents	Notify the EPA immediately of pollution incidents where material harm to the environment is caused or threatened.	S148	Yes	This CEMP

Act	Activity / aspect	Requirement	Reference	Division 5.2 applicability	Where addressed
Protection of the Environment Operations Act 1997	Site licensing	Do not carry out or allow an activity listed in Schedule 1, or carry out work to enable such an activity, unless the premises are licensed by the EPA. This applies to: • Road construction: meaning the construction, widening or re-routing of roads if it results in the existence of four or more traffic lanes (other than bicycle lanes or lanes used for entry or exit) for one kilometres of their length in the metropolitan area, or five kilometres in length in any other area, where the road is classified, or proposed to be classified, as a freeway or tollway under the *Roads Act 1993.*	S47 S48	Yes	This CEMP Environmental Protection License
Dangerous Goods (Road and Rail Transport) Act 2008	Hazards and risks	Ensure that dangerous goods are transported in a safe manner.	S9	Yes	Contaminated Lands Management Plan
Rural Fires Act 1997	Bushfire risk	The Act provides for the prevention, mitigation and suppression of bush and other fires in local government area. Exemptions can be sought to allow hot works to be undertaken on Total Fire Ban days	Division 6 S99	Yes	Bushfire Emergency Management Plan
National Greenhouse and Energy Reporting Act, 2007 and Regulations 2008	Greenhouse gas emissions	Accounting and reporting of greenhouse gases produced and energy consumed during construction. Applicability dependent on thresholds.	-	Yes	Sustainability Management Plan
Land Acquisition (Just Terms and Compensation) Act 1991 (Land Acquisition Act)	Property acquisition	Applies to the acquisition of any land required for the project.	-	Yes	Property Management Plans

Act	Activity / aspect	Requirement	Reference	Division 5.2 applicability	Where addressed
Pesticides Act 1999	Hazards and risks	Use pesticides in an environmentally sensitive manner. Do not use an unregistered pesticide without a permit. Read the label or permit for the pesticide. Use registered pesticides in accordance with instructions on the label. Do not use any restricted pesticide unless authorised by a certificate of competency or a pesticide control order under the Act. • Compliance with pesticide codes of practice is required.	S12 S13 S14 S15 S17	Yes	Biosecurity Management Plan

Appendix A2 - Environmental Aspects and Impacts

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	Ranking Matrix			Potential Consequence	Mitigation Strategy	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	B	Delays through consistency reviews or modification required	Continual review of works to ensure they are in accordance with the planning approval. Development of consistency assessments, LIWAs, MAFS and Mods where required.	possible	3	C	
Non-compliance with Environmental Approvals (EIS,CoA)	Almost certain	4	A	Breach of Legislation,	Compliance tracking, adequate resourcing, project induction, staff training, auditing, carry out works in accordance with CEMP, measures detailed in plan. In accordance with the Conditions of Approval, the Project will Iimplement the following management plans that will manage risk associated with these risks and hazards during construction. These plans include: - Construction Environment Management Plan - Traffic & Transport Access Management Plan (C21). - Noise & Vibration Management Plan (C19). - Contaminated & Hazardous Material Management Plan (SC-7) - Soil & Water Management Plan (C22) - Groundwater Mitigation & Management Plan (GW-4) - Heritage Management Plan (C23) - Biodiversity Management Plan (C20) - Biosecurity Management Plan (C25). - Flood Emergency Management Plan (C24) - Waste Management Plan (WM-2) - Air Quality Management Plan (AQ-1) - Community Consultation Strategy (B1) - Social Impact Management Plan (E109) - Temporary Workforce Accommodation Facility Management Plan (A18) - Bushfire Emergency Plan (E121) - Blast Management Strategy (E10).	unlikely	4	C	
Non-conformance with CEMP, Failure to follow Sub Plans legislative requirements	likely	3	C	delays, fines, prosecutions, environmental harm	CEMP on boarding 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. Use appropriate communication methods (e.g. coordination meetings) to raise CEMP issues from agencies or from internal reviews.	unlikely	3	D	
Failure to obtain third party approvals	Almost certain	3	B	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	D	
Construction footprint cannot be achieved	possible	3	C	Additional approvals required, costs, alternative techniques required.	Construction methodology developed early confirm space checking with plant and equipment.	unlikely	3	D	
Unable to achieve required design and as-built ISC rating.	likely	3	C	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	D	
Change of legislative / regulatory requirements	possible	3	C	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.	possible	3	C	
Delay in obtaining project approval	Almost certain	4	A	Time and cost	Frequent communication with regulators. Preparation of documents to be ready for submission to DPHI.	possible	4	C	
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	C	Traffic delays, complaints	Develop and implement a Traffic & Transport Access Management Plan (C21) and Community Consultation Strategy (B1). Other items include (but not limited to) - 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.	possible	3	C	
Impacts to road safety as a result of increased road use and turning movements at intersections and construction site access gates.	likely	3	C	Safety issues, incidents, traffic delays, complaints		unlikely	3	D	

Disruptions and delays to public transport operations, particularly buses	likely	3	C	Traffic delays, complaints	- Changes will be designed and implemented in consultation with Transport NSW and bus operators, where relevant. - Community notificaitons in advance of changes. - Induction and training. - Temporary and permanent restoration methodologies and timing. - Planning to include consideration of dilapidation approach.	unlikely	3	D	
Impacts on the availability of on street and off-street parking surrounding construction work areas	likely	3	C	Community amenity impacted, public complaints		possible	3	C	
Traffic impact to roads utilised by the project due to cummulative impacts from other surrounding projects.	likely	3	C	Community amenity impacted, public complaints		unlikely	3	D	
Impacts on access to private properties.	likely	3	C	Complaints from landowners, impacts to farm operations		unlikely	3	D	
Impacts to emergency services through delays in access due to works.	likely	3	C	Impacting the ability of emergency services to perform critical tasks		unlikely	3	D	
Reduced pedestrian and cyclist access.	unlikely	3	D	Reduced accessibility to pedestrians/cyclists, complaints		unlikely	3	D	
Impact of construction work on existing rail operations during the tie-in to the north and south ends of the project area.	possible	2	D	Traffic/railway delays, complaints,		unlikely	3	D	
Realignment of Burley Griffin Way resulting in detours and change to traffic control.	Almost certain	3	B	Traffic delays, complaints		possible	3	C	
Impacts bus routes and services as a result of increased road use and diversions due to road realignment.	Almost certain	2	C	Bus service delays, complaints		unlikely	3	D	
Impacts livestock highways as a result of increased construction traffic.	likely	2	D	Impacting farm operations		unlikely	2	E	
Rural roads unsuitable for construction traffic (e.g., size, land use).	possible	3	C	Safety issues, incidents, traffic delays, complaints		unlikely	3	D	
Increase in road use as a result of cumulative infrastructure projects in the vicinity proposal.	unlikely	3	D	Safety issues, incidents, traffic delays, complaints		unlikely	2	E	
Physical impact to roads utilised by the project (dilapidation), including consideration of cummulative impacts from other surrounding projects	Almost certain	3	B	Community amenity impacted, public complaints, cost of vehicle damage claims		possible	3	C	
Noise and Vibration									
Elevated noise and vibration levels around construction sites, compounds, site accesses and haul routes affects amenity for sensitive receivers	likely	4	B	Possible breach in approvals, Community complaints, construction fatigue, property damage.	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: - 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) - Traffic & Transport Access Management Plan (C21) - Blast Management Strategy (E10). Other key items include (but not limited to): - Induction,Toolbox and Training - Monitoring, validation and project-specific noise modelling - Specialist consultants - Alternate construction methods (for e.g. shears vs hammering) - Respite periods - Consideration of noise mitigating arrangements, including mats, shielding, hoarding, and site design generally. - Staged construction - Minimise idling, shouting and staff gathering near sensitive area. - Consideration of alternate construction methodologies. - Implementation of exclusion zones. - Project-specific modelling and monitoring. - Building conditions surveys	possible	3	C	
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	B	Community complaints, regulator involvement		possible	3	C	
Cumulative noise impacts from other projects	likely	2	D	Community complaints, regulator involvement		possible	2	D	
Vibration impacts on heritage and other structures causing damage (cosmetic and/or structural)	possible	4	C	Property damage, delays, breach of CoA.		unlikely	2	E	
Vibration impacts on sensitive equipment	possible	4	C	Damage complaints, delays		unlikely	3	D	
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	B	community concerns, regulator involvement, fines, impacts flora fauna, pollution	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: - Air Quality Management Plan (AQ-1) - Contaminated & Hazardous Material Management Plan (SC-7) - Soil & Water Management Plan (C22), including relevant ERSED Plans - Rehabilitation Strategy Complaint management processes (considered in the relevant sub-plans and the CCS) - Sustainability Management Plan Other key items include (but not limited to): - Use of water as suppression as required - Minimise exposed surfaces and stage works to minimise disturbed areas	unlikely	4	C	
Odours/emissions from disturbance of contaminated soils or other sources such as asphalt laying during road modification works	unlikely	3	D	community concerns, regulator involvement, fines, impacts flora fauna, pollution		unlikely	2	E	

Fugitive emissions (e.g. VOCs) from fuel/chemicals storage and handling	possible	2	D	community concerns, regulator involvement, fines, impacts flora fauna, pollution	- 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. - Stabilised Access tracks local roads. - Engagement with relevant stakeholders (LGAs and EPA). - Construction staging and temporary work plans - 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.	unlikely	2	E	
Impacts on air quality as a result of emissions from vehicles or plant during construction	likely	2	D	community concerns, pollution		unlikely	2	E	
Contamination									
Potential to disturb contaminated soils during construction and mobilise contamination.	possible	3	C	Exposure of contamination, spread of contaminated substances/materials, human exposure, ecological exposure	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) - Surface Water Monitoring Program - Groundwater Monitoring Program - Remediation Action Plan - 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): - Permits and Licencing - Removal off-site as a waste to a licensed waste facility. - Specialist Contractor(s) including CPESC and contamination consultant - Fuel tanks and associated pipe work 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. - Approved design - ERSED Plans - Training toolbox and induction - Materials Tracking Register - Unexpected Finds Procedure for contamination	unlikely	3	D	
Potential to disturb hazardous materials during the demolition of buildings and structures.	possible	3	C	Exposure of contamination, spread of contaminated substances/materials, human exposure, ecological exposure		unlikely	3	D	
Potential for direct contact exposure by construction workers to soils associated with dumped materials and stockpiles or machine storage and maintenance.	possible	3	C	Exposure of contamination, spread of contaminated substances/materials, human exposure, ecological exposure		unlikely	3	D	
Accidental discharge of potentially contaminated groundwater	possible	3	C	Pollution, breach of legislation, fines		unlikely	3	D	
Exposure/ Mistreatment of Acid Sulfate Soils causing pollution or impacting construction in ground	possible	3	C	Pollution, breach of legislation, fines		unlikely	3	D	
Contamination of soils and groundwater due to spills or leaks of fuels, oil or other hazardous substances	possible	3	C	Pollution, soil contamination, breach of legislation, fines		unlikely	3	D	
Contaminated stockpile storage and containment inadequate in space or build	likely	3	C	Pollution, breach of legislation, fines, costs due to added disposal/management of material		unlikely	3	D	
Not recognising/ improperly treating unexpected finds	Almost certain	3	B	Pollution, breach improperly legislation, fines, incorrect waste disposal, potential cross contamination of stockpiles.		unlikely	3	D	
Incorrect classification of waste	Almost certain	3	B	Pollution, breach of legislation, fines		unlikely	4	C	
Incorrect disposal of waste	Almost certain	3	B	Pollution, breach of legislation, fines		unlikely	4	C	
Water Quality									
Sedimentation of local and downstream watercourses and water bodies	likely	3	C	Pollution of surface water/groundwater, ecological impacts, impacts to waterways users (farmers), breach of legislation, fines	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) - Surface Water Monitoring Program - Groundwater Mitigation & Management Plan (GW-4) - Groundwater monitoring program - Acid Sulfate Soil Management Plan - Remediation Action Plan - SEP / ERSED plans Other key items include (but not limited to): - Installation and maintenance of ERSED controls. - Construction planning and methodology - Develop and implement Erosion and Sediment Control Plans (ESCPs) prior to works commencing. - Delineate areas to be retained or cleared. - Stabilise exposed areas and stockpiles. - Diversion of water to sediment basins (where applicable). - Treat and test basins prior to discharge. - Compliance with water discharge criteria from WPIA - Management of groundwater - Spill Kits / training - Plant Pre-Acceptance Maintenance Records	unlikely	3	D	
Impacts to water quality due to disturbance of actual or potential acid sulphate soils	possible	4	C			unlikely	4	C	
Increased alkalinity and pH of watercourses due to runoff from concrete batching plant operations.	unlikely	4	C			unlikely	3	D	
Litter from construction activities polluting downstream watercourses.	unlikely	3	D			unlikely	2	E	
Contamination of groundwater from construction activities.	possible	4	C			unlikely	3	D	
Impacts on surface water from spills or leaks from construction plant and equipment.	Almost certain	2	C			likely	2	D	
Hydrology and Flooding									
Impairment or modification of existing drainage infrastructure	likely	3	C	Change in overland flow paths and flood regimes, excacerbation 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.	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) - Flood Emergency Management Plan (C24) Other key items include (but not limited to): - Hydrologic and hydraulic assessment (and/or review existing assessments undertaken) - Consultation with relevant councils re drainage designs and systems.	unlikely	3	D	
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	C			unlikely	3	D	
Changes to flow patterns and altered hydrology due to construction in watercourses.	possible	3	C			unlikely	3	D	
Impact of flooding on unprotected areas during construction resulting in washouts or erosion.	possible	3	C			unlikely	3	D	

Sedimentation and changes to geomorphology in watercourses.	possible	3	C		- Management of water flow/diversions through temporary works designs and in consultation with CPESC.	unlikely	3	D	
Changes to impervious areas and/or the catchment area of existing drainage infrastructure,	Almost certain	2	C		- Implementation of ERSED plans to minimise sedimentation in waterways/drains. - Implementation of Working in Waterways Procedure (in SWMP).	unlikely	2	E	
Groundwater									
Extraction of groundwater may cause drawdown of the groundwater table, impacting sub-surface flows and water availability.	possible	4	C	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) - Groundwater monitoring program - Earthworks/civil design considerations - 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 - Licencing and Permit processes - Modelling (and/or review of existing modelling undertaken as part of the EIS). - Monitoring removal quanitities to ensure aquifer is not significantly impacted, including farmers which rely on the aquifer for a water source. - Ecological monitoring for GDEs as required	unlikely	3	D	
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	C			unlikely	3	D	
Changes to soil moisture content causing compression or settlement.	possible	4	C			unlikely	3	D	
Degradation of water quality through the movement of potentially existing contamination plumes within the groundwater environment.	rare/remote	3	D			unlikely	2	E	
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	B	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,	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: - 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 - Training and awareness, including induction (and specifically content for artefact find). - Specialist consultant - 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. - Vibration monitoring - Avoiding vibration intensive works with MWDs of heritage structures, uncless further assessment/approvals have been obtained. - Further assessment of items with potential heritage significance	unlikely	3	D	
Disturbance of known or unidentified items or places of non-Aboriginal heritage significance.	possible	4	C			unlikely	3	D	
Impacts to heritage items from vibration during construction.	possible	4	C			unlikely	3	D	
Design that detracts from the heritage significance of nearby items.	unlikely	3	D			unlikely	2	E	
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	D			unlikely	2	E	
Aboriginal heritage									
Potential impacts on registered Aboriginal heritage items/sites in the proposal site.	likely	4	B	Prosecutions, infringements, permanent damage/harm to heritage items, delays in approval to recommence, additional archaeological salvage/assessments, approvals	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: - Heritage Management Plan (C23) - Archaeological excavations and salvage and assocaited plans/reports - 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 - Training and awareness, including inductions. - Detailed design to consider avoiding areas as identified. - Stakeholder consultation, including with RAPs - Heritage licenses/permits as required.	unlikely	3	D	
Impacts on unrecorded Aboriginal sites and/or areas of archaeological sensitivity or cultural value.	possible	4	C			possible	2	D	
Impacts on areas predicted to have moderate to high archaeological potential.	possible	4	C			possible	2	D	
Indirect impacts on registered Aboriginal sites outside the proposal site by the movement of vehicles and/or construction machinery.	possible	3	C			possible	2	D	
Indirect impacts to Aboriginal heritage items from construction of the project such as visual setting or settlement.	possible	2	D			unlikely	2	E	
Biodiversity									
Clearing of native vegetation resulting in loss of fauna habitat, habitat fragmentation and loss of connectivity.	likely	4	B		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: - Biodiversity Management Plan (C20), inclusive of the clearing procedure, fauna rescue and release procedure, working within and adjacent to waterways procedure, farm dam dewatering procedure. - Biosecurity Management Plan (C25). - Rehabilitation Strategy - Box Gum Woodland Restoration Plan - Confirmation of Biodiversity Impacts of Unsurveyed Land Report - Soil & Water Management Plan (C22) - Groundwater Mitigation & Management Plan (GW-4)	possible	3	C	
Clearing greater than design allowances (although still approved project boundaries) Impacts to native vegetation from earthworks and clearing	possible	4	C			possible	2	D	
Direct impacts on listed threatened flora species and endangered terrestrial ecological populations and communities.	likely	4	B			possible	3	C	

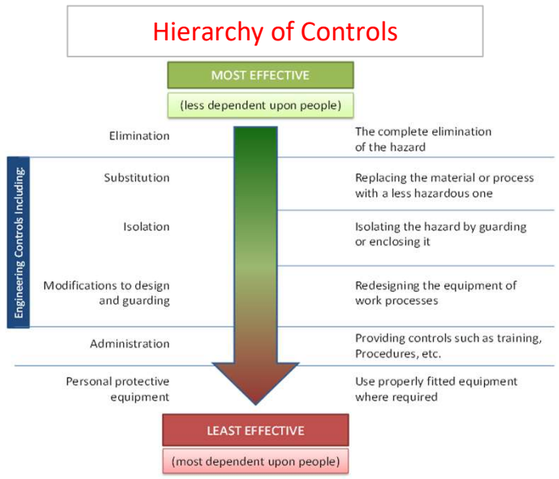
Impacts on potential habitat for listed threatened fauna species.	likely	4	B	Prosecutions, fines, damage to flora communities and habitat for fauna, physical loss of fauna species, unnapproved clearing, exceedance of clearing limits, fauna mortality/injury, rework, delays, failed rehabilitation	- Groundwater Mitigation & Management Plan (GW-4) - Unexpected and Incidental Finds Protocol Other key items include (but not limited to): - Delineation and Fencing - TPZ's - Training and awareness, including induction - Replant native vegetation as soon as possible - Reuse of vegetation as mulch - Management of weeds, pests and pathogens incldluing vehicle/equipment hygiene - Pre-clearing surveys to be undertaken by an ecologist - Habitat areas to be protected to be clearly demarcated as no go zones with fencing - Clearing flagging to be maintained through to works completion - Sensitive Area Plans and Environmental Work Method Statements to be briefed to site staff highlighting protected areas, clearing limits, habitat trees etc. - Ensure no disturbance to TEC (including in unsurveyed land) occurs prior to relevant approvals/clearances have been obtained. - Clearing permits to be issued prior to any clearing activity. - Minimise vegetation clearance - Clearing flagging to be maintained through to works completion - Use of ecologists throughout the Project for guidance and advice - Stop works where unexpected threatened species or fauna interactions occur. - Implement appropriate ERSED controls to minimse impacts to waterways and aquatic fauna/flora Ensure dewatering is undertaken in accoranc ewith the relevant procedures to ensure water quality is appropriate and does not impact aquatic fauna. - Clearing to be tracked to ensure limits are not exceeded	possible	3	C	
Increased impacts from pest plants and animals during construction from movement of vehicles, machinery and materials in and out of site.	possible	4	C			possible	2	D	
Indirect impacts on fauna species due to increased dust, sedimentation, and erosion, noise, light and contamination pollution.	possible	4	C			possible	2	D	
Native fauna mortality from vehicle strikes and during clearing	likely	3	C			possible	2	D	
Fauna Interaction	possible	4	C			possible	2	D	
Potential impacts on groundwater dependent ecosystems.	possible	3	C			possible	2	D	
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	B			possible	3	C	
Water quality impacts and changes to flow regimes, including through the removal of farm dams, affect aquatic ecosystems.	likely	3	C			possible	2	D	
Potential impacts on protected and sensitive lands.	likely	3	C			possible	2	D	
Unsuccessful rehabilitation of works	likely	3	C			rare/remote	3	D	
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	D	Loss of soil, degredation of soil, sedimentation in waterways/drains, fines/regulatory action, delays/rework, unstable landforms	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) - Contaminated & Hazardous Material Management Plan (SC-7) - Geotechnical and DSI reports and excavation permits. - Waste Management Plan (WM-2) - SEPs/ERSED plans	possible	1	E	
Disturbance of soils and subsequent loss or degradation of soil quality during earthworks at construction compound site.	possible	2	D			possible	1	E	
Disturbance of landforms during earthworks reducing the stability of landforms.	possible	3	C			possible	2	D	
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	C	Cost, loss of reuse potential and impact to sustainability outcomes for the project (ISC rating), additional resource consumption, regulatory breaches/action, pollution, illegal disposal	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: - 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 such as recycled concrete. - 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. use of vegetation as mulch, 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	D	
Inappropriate management of waste generated during construction, resulting in environmental, health and amenity impacts, including contamination, water quality impacts, odour and dust.	possible	2	D			possible	1	E	
Inappropriate management of waste generated during construction, resulting in excessive waste being directed to landfill.	possible	3	C			possible	2	D	
Increased resource consumption.	possible	2	D			possible	1	E	
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	A		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:	possible	3	C	

Indirect impacts on agricultural land use/production and livestock from construction activities, including impacts from changes to access, noise, and air pollution.	likely	2	D	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	unlikely	2	E	
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	B			possible	3	C	
The movement of construction machinery and materials introduces biosecurity risks, including the spread of weeds.	possible	3	C			possible	2	D	
Effects on access to and along travelling stock reserves.	possible	2	D			unlikely	2	E	
Effects on mining leases and licences, such that viability is affected.	unlikely	2	E			unlikely	2	E	
Impacts on agricultural land use from construction activities including impacts from reduced access, noise, and air pollution.	likely	2	D			unlikely	2	E	
Impacts on land use as a result of property acquisition.	likely	3	C			possible	2	D	
Impacts on other infrastructure during construction including utilities and existing rail lines.	possible	2	D			unlikely	2	E	
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	C	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.	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: '-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).	likely	2	D	
Restriction on people's ability to move around their community as a result of traffic restrictions and delays at level crossings.	likely	2	D			unlikely	2	E	
Decreased perceptions of safety resulting from anti-social behaviour in local townships due to temporary construction workforce.	possible	3	C			likely	2	D	
Restricted access to community services and facilities due to increased demand from the construction workforce.	possible	4	C			likely	2	D	
Impeded access across the rail corridor for emergency services, specifically during times of high bushfire risk.	possible	4	C			likely	2	D	
Stress and anxiety resulting from potential harm to identified sites of Aboriginal cultural heritage around the proposal site.	unlikely	5	B			possible	3	C	
Adverse changes to community cohesion and perception of safety in relation to anti-social behaviour exhibited by temporary construction workforce.	possible	3	C			likely	2	D	
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	C			likely	2	D	
Adverse mental health impacts (frustration, impatience) and cessation engagement with ARTC due to protracted design planning process.	possible	4	C			likely	2	D	
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	C			likely	2	D	
Visual Amenity									
Light impacts from out-of-hours work during construction.	possible	2	D	Community complaints, loss of visual amenity in the area	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: '-Social Impact Management Plan (E109) - Noise & Vibration Management Plan (C19) - Temporary Workforce Accommodation Facility Management Plan (A18)	unlikely	2	E	
Temporary visual impacts on sensitive visual receivers in the vicinity of construction work and from areas with views of the proposal site.	possible	2	D			unlikely	2	E	
Adverse impacts on landscape character during construction, particularly in greenfield areas.	possible	2	D			unlikely	2	E	
Health and Safety									
Refer to the Project Workplace Risk Assessment (WRA) for health and safety risks and mitigation.									

Appendix A3 – Risk Assessment Matrix

JHG PROJECT RATING MATRIX

Register



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	**1**	**2**	**3**	**4**	**5**
ALMOST CERTAIN	D	C	B	A	A
LIKELY	D	D	C	B	A
POSSIBLE	E	D	C	C	B
UNLIKELY	E	E	D	C	B
RARE / REMOTE	E	E	D	D	C

ACTIVITY METHOD STATEMENT (AMS)

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. follow the hierarchy of controls) and address the root causes. Management considers that the controls are operating effectively and reliably at all times.
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 effectiveness.
Partial	While the design of controls may be largely correct in that they treat most of the root causes of the risk, implementation and/or operational effectiveness is only partial
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

Appendix A4 – Environment, Sustainability and Climate Policies

JOHN HOLLAND

ENVIRONMENT POLICY

UP FOR THE CHALLENGE OF TRANSFORMING LIVES

OUR COMMITMENT

To value the natural environment and communities in which we work.

Our goal across all business activities is to use resources efficiently, minimise environmental impacts and prevent pollution, and enhance and protect the environment and our heritage.

OUR APPROACH

John Holland's four values are the platform for our everyday interactions and guide our approach to the environment.

Caring

We care deeply about what we do and how it impacts the environment now and for the future by:

- Driving a strong culture of respect for the environment across our business, and with our industry partners
- Prioritising the environment and resource efficiency in our decision-making throughout the project lifecycle - planning, design, procurement and delivery
- Providing best practice training and education to our people to build awareness and capability to protect the environment and respect the communities in which we work and live.

Empowering

We gain trust through action by:

- Empowering our people, partners and subcontractors to speak up about how we can better protect and enhance the environment
- Encouraging participation and collaboration with all our people and stakeholders to achieve positive environmental performance and outcomes
- Driving accountability by ensuring everyone is responsible for valuing and protecting the environment

Imaginative

We push the boundaries by:

- Focusing on continual learning and improvement - reviewing performance, capturing and sharing lessons learnt, and celebrating successes
- Exploring and introducing new technologies and approaches that minimise impacts on the environment and provide positive outcomes for the community
- Having a transparent risk management process that helps us continuously identify opportunities to improve working with our clients and other stakeholders to help them exceed their objectives and obligations

Future-focused

We're in it for the long, long term by:

- Exceeding our legislative, customer and other mandatory requirements
- Maintaining and improving an effective management system
- Ensuring our work leaves a positive legacy for the communities we serve and the environment we operate in



Glenn Palin
Chief Executive Officer
November 2024

JOHN HOLLAND

SUSTAINABILITY POLICY

UP FOR THE CHALLENGE OF TRANSFORMING LIVES

OUR COMMITMENT

We value the environment and communities in which we work.

Our goal across all our business activities is to drive economic growth, environmental resilience and social progress. In collaboration with our customers and stakeholders, we strive to create a positive legacy for the communities in which we work.

OUR APPROACH

John Holland's core values drive our everyday interactions and guide our approach to sustainability.

Caring



We care deeply about what we do and how it affects lives, now and for future generations, by:

- driving a strong culture that balances social, environmental and economic needs and creates positive sustainability experiences for our people, customers and stakeholders
- integrating environmentally and socially responsible sourcing into our procurement processes, and seeking opportunities to collaborate with our supply chain to drive innovation and create mutual value
- nurturing talent diversity and wellbeing across our organisation, with the aim of creating a safe and inclusive environment that fosters high performance

Empowering



We gain trust through action by:

- Empowering our people, partners and subcontractors to drive social betterment through honest, ethical behaviour
- Participating and collaborating widely to embed sustainability principles across the broader industry holding each other to account, ensuring we each understand our contributions and the role they play in supporting sustainable outcomes
- Providing information that is transparent and accurate

Imaginative



We push the boundaries by:

- Continuously learning and improving–reviewing our performance, capturing and sharing lessons learnt and celebrating our successes
- Exploring and introducing new technologies, products and approaches that support our sustainability goals
- Emphasising sustainable solutions in our decision-making at every level of the business, and through all stages of the project lifecycle

Future-focused



We're in it for the long, long term by:

- Exceeding customer requirements and positioning our business to proactively respond to changing industry expectations
- Establishing and maintaining an effective management system to reduce risk, drive sustainable outcomes and identify opportunities for improvement
- Ensuring we leave a positive legacy for people and planet by considering our footprint and relationships in everything we do
- Adapting and embracing change and championing innovation, with the aim of driving continual improvement and going beyond business as usual



Glenn Palin
Chief Executive Officer
November 2024

JOHN HOLLAND

CLIMATE POLICY

UP FOR THE CHALLENGE OF TRANSFORMING LIVES

OUR COMMITMENT

We recognise that what we do today has an impact on future generations. In line with our purpose to transform lives, we are committed to understanding and mitigating climate change impacts across all areas and activities of our business. To that end, we will develop a pathway to Net Zero emissions and implement carbon reduction initiatives that are aligned with the goals of the Paris Agreement and 1.5-degree global target, and at the same time meet the expectations of our employees, customers and the communities in which we operate.

OUR APPROACH

John Holland's four values of caring, empowering, imaginative and future-focused underpin everything we do, including our approach to climate.

Caring

We care deeply about what we do and how it affects the climate, now and for the future by:

- Driving a strong culture across all our business operations and the industry at large to respect people and the climate
- Having a transparent risk management process that helps us to identify opportunities and improvements to adapt to and mitigate climate change
- Providing best practice training and education for our people to build awareness and capability to manage climate risk

Empowering

We gain trust through action by:

- Encouraging business and supply chain participation, collaboration, and research and development to reduce emissions and address climate change risk
- Empowering our people and partners to work together to reduce our climate change impacts
- Driving accountability by defining climate governance, ensuring everyone is responsible for contributing to reducing our carbon footprint
- Reporting and disclosure in relation to climate

Imaginative

We push the boundaries by:

- Prioritising innovative decision making across the business to address climate change risk
- Exploring and embedding new and emerging leading practice technologies to transform to a low emission business and industry
- Focusing on continual learning and improvement by reviewing carbon emissions performance, capturing and sharing lessons learnt and celebrating successes

Future-focused

We're in it for the long, long term by:

- Establishing and maintaining an effective management system and net-zero pathway using the latest climate science
- Meeting customer, legislative and other mandatory climate requirements
- Leaving a positive legacy for communities and environments in which we work and operate, that safeguards our climate for future generations



Glenn Palin
Chief Executive Officer
November 2024

Inland Rail Environment and Sustainability Policy

Inland Rail commits to the following throughout design, construction and operation:

- **No harm:**
  - Our goal is that no-one is harmed at work or on our network.
- **Engage early and meaningfully with stakeholders, including First Nations organisations, communities, industry and government:**
  - Build effective working relationships and a shared understanding of the Program and solutions.
- **Promote long-term economic benefits within communities:**
  - Create lasting opportunities for development of skilled local and First Nations workers;
  - Support local and First Nations businesses to ensure they are prepared for and provided with opportunities to participate; and
  - Enable Inland Rail to be a catalyst for complementary private sector investment.
- **Protect the environment by minimising the environmental footprint:**
  - Apply the principles to avoid, minimise, offset to manage impacts to receiving environments and ecological values;
  - Reduce greenhouse gas emissions, minimise waste and apply circular economy principles of reuse and repurposing of materials;
  - Minimise water use;
  - Continually investigate opportunities to improve environmental values and prevent pollution, and;
  - Obtain and comply with all environmental approvals and compliance obligations.
- **Future-proof Inland Rail so it is efficient and effective in the long term:**
  - Design for climate change resilience;
  - Incorporate the future demand requirements and corridor uses in current design.
- **Base decisions on a balanced consideration of technical, economic, environmental and social elements:**
  - Adopt a consistent approach across the Program.
- **Regularly review and audit processes and performance:**
  - Challenge the way we have always done things – ensure we are doing what we said we would do.
- **Drive a culture of continuous improvement:**
  - Seek to improve, collaborate and value add throughout delivery, and;
  - Continually improve our Environmental Management System to enhance environmental performance.

Rebecca Pickering
CE – Inland Rail

Steve Jones
Director – HSEQ

Ashley Mason
Program Delivery Director (G2K)

Rob Storey
Director – Pre-contracts

Heather Parry
Program Delivery Director

Melvyn Maylin
Program Delivery Director

David Fogwill
Director – Engineering, Assurance & Integration

Adam Chapple
Director - People & Culture

Neil Burlison
Director – Business Services

Matthew Martyn-Jones
Director – Communications & Stakeholder Relations

March 2023

Appendix A5 – Sensitive Area Plan

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 1 OF 75

Billabong Creek

Olympic Highway

A41

200 300 400 500 600 670

Billabong Creek

Legend

CIZ E2S - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Status E: Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia

Aboriginal Heritage Surface Artefact Location Points

Aboriginal Heritage Surface Artefact Collection Areas

Chainage

Level Crossings
- Public
- Private
- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

Threatened Fauna Species locations - BC Act
- Black Falcon
- Brown Treecreeper
- Diamond Firetail
- Dusky Woodswallow
- Flame Robin
- Grey-crowned Babbler
- Little Eagle
- Little Eagle - Nest (Confirmed)
- Spotted Harrier
- Spotted Harrier - Nest (Confirmed)
- Square-tailed Kite
- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White-fronted Chat
- Squirrel Glider Habitat
- Large-footed Myotis habitat
- Superb Parrot Habitat
- Superb Parrot Breeding Habitat
- Flora - Swainsona Recta
- Prasophyllum petilum
- Euphrasia arguta, Grevillea wilkinsonii,Prasophyllum sp. Wybong
- Diuris tricolor
- Cullen pervum
- Cullen pervum
- Caladenia arenaria, Eleocharis obicis,Indigofera efolata,Swainsona sericea
- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)

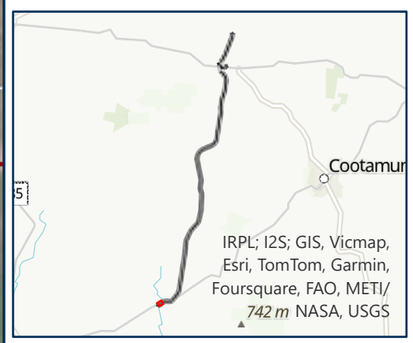
- Native Vegetation

TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
- Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Wetlands
- Areas of Environmental Concern
- Located Contaminants
- Receivers
- Quarry Sites
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

IRPL; I2S; GIS, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community, Esri Community Maps Contributors, Spatial Services, Vicmap, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, Foursquare, METI/NASA, USGS

Notes: I2S Low Impact Works



Coordinate System: GDA2020 MGA Zone 55

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Date: 4/12/2024
Author: JH GIS (PH)
Approver: ###

Paper: A3
Scale: 1:2,000
Rev: A

Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 2 OF 75

Billabong Creek

Billabong Creek

Olympic Highway

Olympic Highway

Olympic Highway

A41

A41

A41

A41

1000

800

800

1600

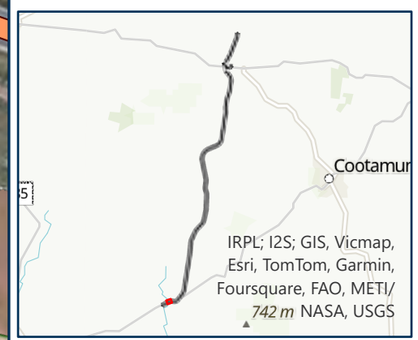
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Legend

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  - West
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  - Ammobium craspedioides
  - Acacia ausfeldii
  - Habitat Connectivity
- **Strahler Stream Order**
- Strahler
  - 0
  - 1
  - 2
  - 3
  - 4 - 6
  - Land not surveyed
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  - Native Vegetation
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  - Receivers
  - Quarry SBIs
  - Indigenous Survey Zones
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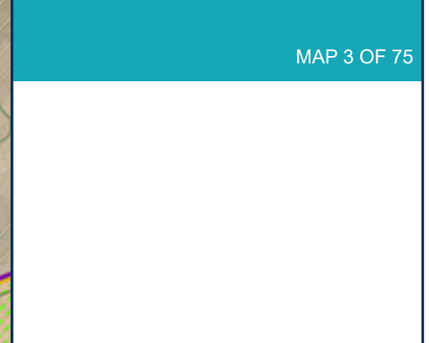
INLAND RAIL

LIW Environmental Constraint Mapping

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MAP 3 OF 75

Notes: I2S Low Impact Works



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Aconex No.

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- Receivers
- Quarry Sites
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

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INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 4 OF 75

2000
2100
2200
2300
2400
2500
Olympic Highway
A41

Legend

- CIZ EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Status E: Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia
- Aboriginal Heritage Surface Artefact Location Points
- Aboriginal Heritage Surface Artefact Collection Areas
- Chainage

Level Crossings
- Public
- Private
- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

Threatened Fauna Species locations - BC Act
- Black Falcon
- Brown Treecreeper
- Diamond Firetail
- Dusky Woodswallow
- Flame Robin
- Grey crowned Babbler
- Little Eagle
- Little Eagle - Nest (Confirmed)
- Spotted Harrier
- Spotted Harrier - Nest (Confirmed)
- Square-tailed Kite
- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White fronted Chat
- Squirrel Glider Habitat
- Large footed Myotis habitat
- Superb Parrot Habitat
- Superb Parrot Breeding Habitat
- Flora - Swainsona Recta
- Prasophyllum petilum
- Euphrasia arguta, Grevillea wilkinsonii,Prasophyllum sp. Wybong
- Diuris tricolor
- Cullen pervum
- Cullen pervum
- Caladenia arenaria, Eleocharis obicis,Indigofera efolata,Swainsona sericea
- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

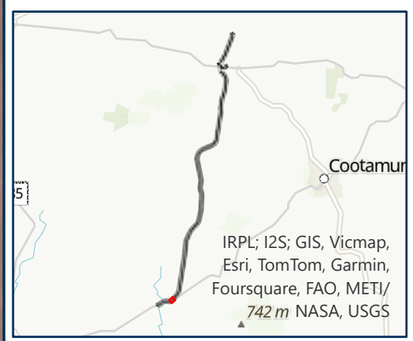
Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)
- Native Vegetation

TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
- Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South-Eastern Australia
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- Wetlands
- Areas of Environmental Concern
- Located Contaminants
- Receivers
- Quarry Sites
- Indigenous Survey Zones
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- State Heritage Register

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Notes: I2S Low Impact Works



Coordinate System: GDA2020 MGA Zone 55

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Author: JH GIS (PH)
Approver: ###

Paper: A3
Scale: 1:2,000
Rev: A

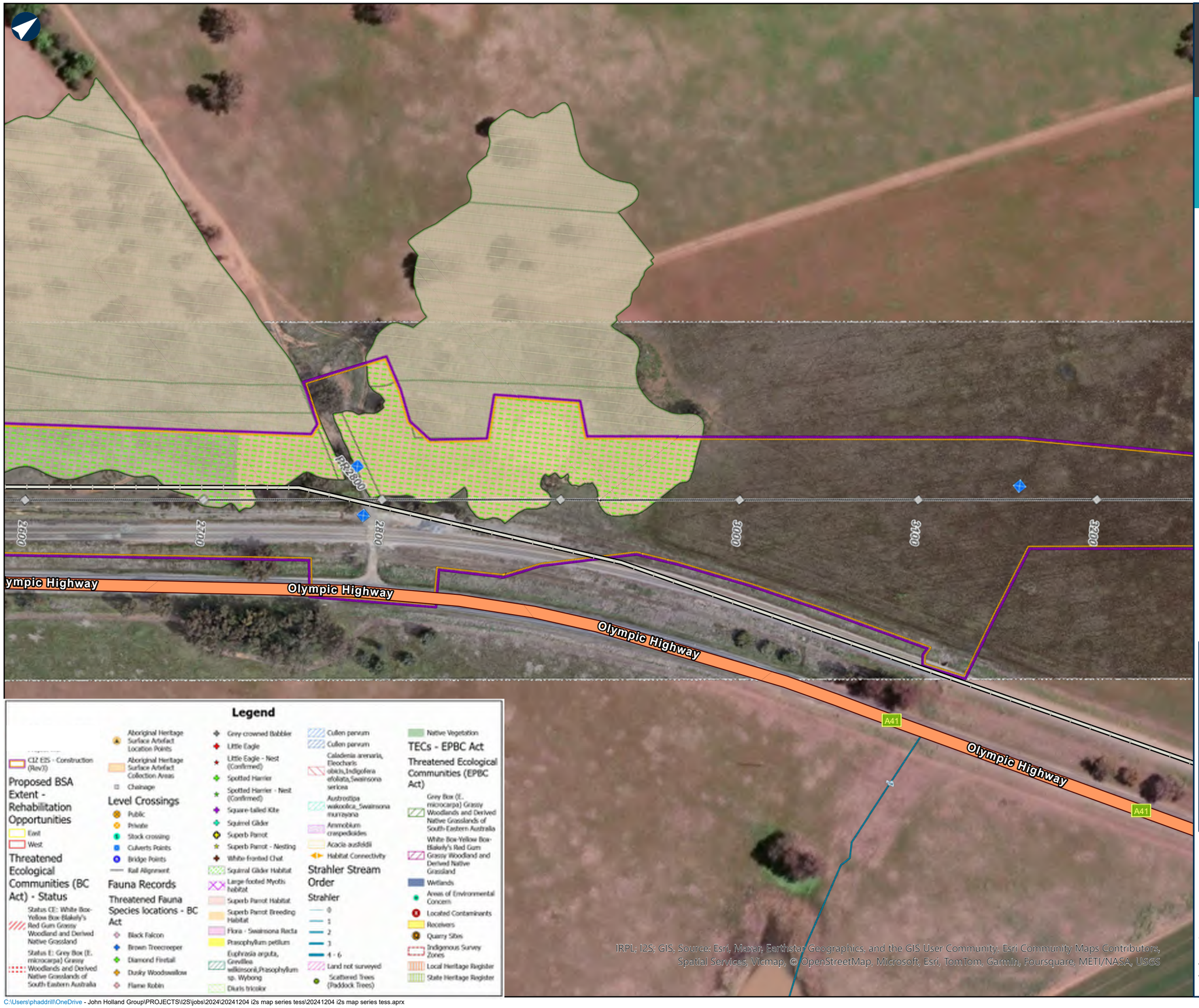
Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 5 OF 75



Legend

- C1Z E2S - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
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- Chainage

Level Crossings
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Fauna Records

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- Superb Parrot
- Superb Parrot - Nesting
- White-fronted Chat
- Squirrel Glider Habitat
- Large-footed Myotis habitat
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- Habitat Connectivity

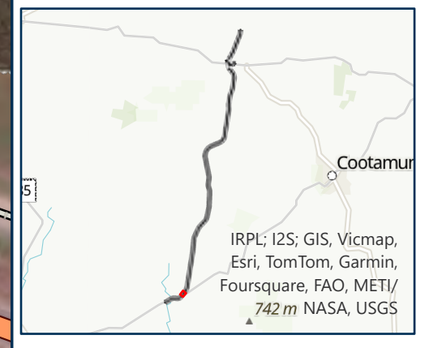
Strahler Stream Order

Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)
- Native Vegetation

TECs - EPBC Act

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- Receivers
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Notes: I2S Low Impact Works



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Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 6 OF 75

SUS720

3200 3300 3400 3500 3600 3700 3800

Legend

CIZ EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
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Aboriginal Heritage Surface Artefact Location Points
Aboriginal Heritage Surface Artefact Collection Areas
Chainage

Level Crossings
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- Culverts Points
- Bridge Points
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- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White-fronted Chat
- Squirrel Glider Habitat
- Large-footed Myotis habitat
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- Euphrasia arguta, Grevillea wilkinsonii,Prasophyllum sp. Wybong
- Diuris tricolor
- Cullen pervum
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- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

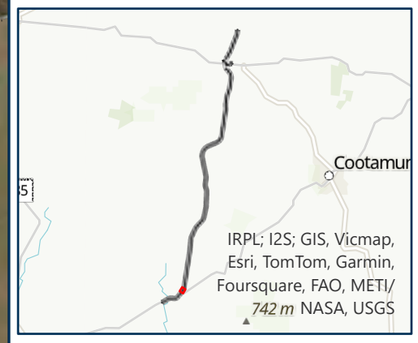
Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)
- Native Vegetation

TECs - EPBC Act

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INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 7 OF 75

SUE5710

3600

3800

4000

4200

4400

4600

4800

Legend

C1Z EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities

- East
- West

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- Public
- Private
- Stock crossing
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- Bridge Points
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Threatened Fauna Species locations - BC Act

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- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

Strahler

- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)
- Native Vegetation

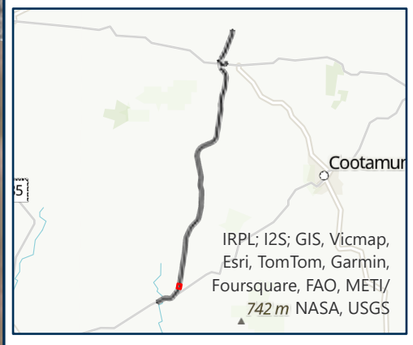
TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)

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- Receivers
- Quarry Sites
- Indigenous Survey Zones
- Local Heritage Register
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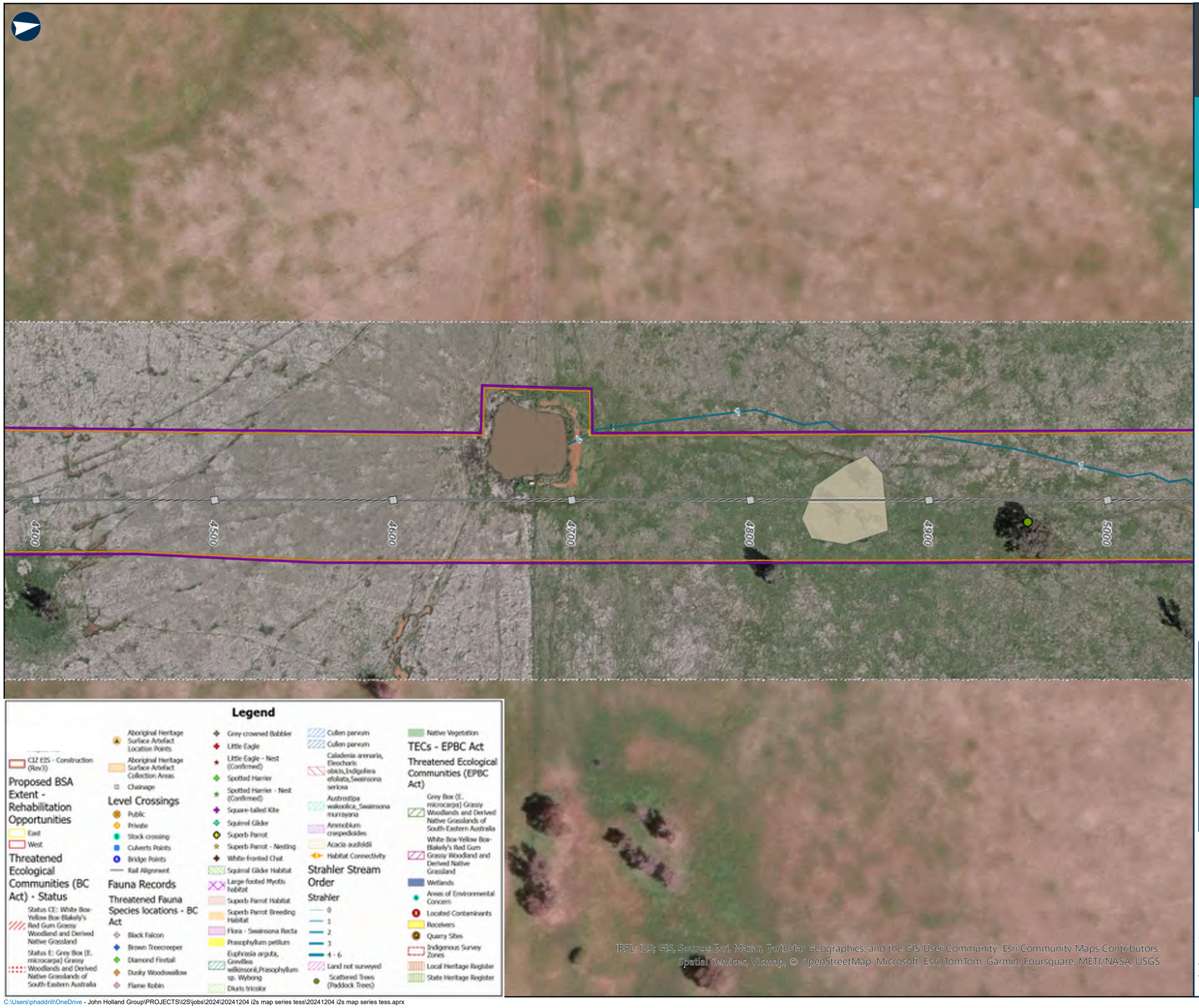
Data Sources: IRPL, JH

INLAND RAIL

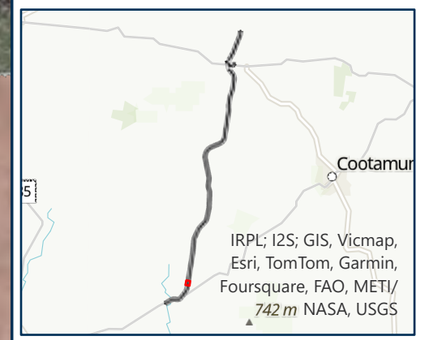
LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 8 OF 75



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Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 9 OF 75

Old Sydney Road

5000 5100 5200 5300 5400 5500

Legend

- C1Z E2S - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
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- Chainage

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- Private
- Stock crossing
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Fauna Records

Threatened Fauna Species locations - BC Act
- Black Falcon
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- Flame Robin
- Grey crowned Babbler
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- Little Eagle - Nest (Confirmed)
- Spotted Harrier
- Spotted Harrier - Nest (Confirmed)
- Square-tailed Kite
- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White fronted Chat
- Squirrel Glider Habitat
- Large footed Myotis habitat
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- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

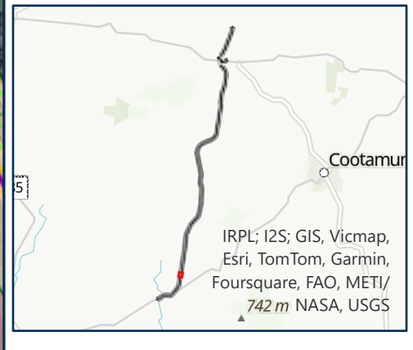
Strahler
- 0
- 1
- 2
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TECs - EPBC Act

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INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 10 OF 75

PUS6001 Grey Road

SUB600

5700 5800 5900 6000 6100 6200

Legend

- C1Z EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
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Strahler Stream Order

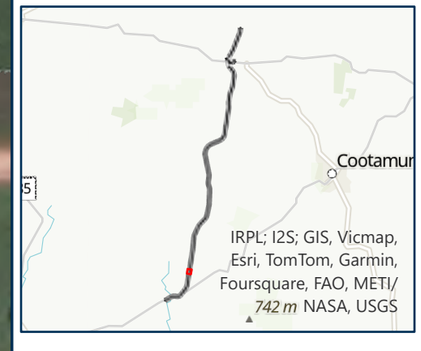
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INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 11 OF 75

6700 6600 6500 6400 6300 6200

Legend

- C1Z EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
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- Habitat Connectivity

Strahler Stream Order

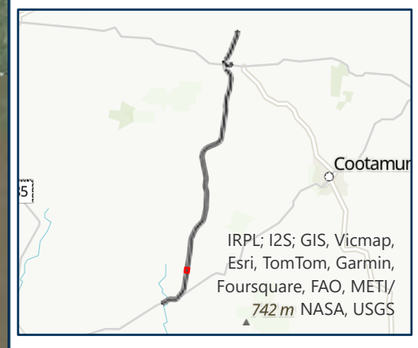
Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)
- Native Vegetation

TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
- Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Wetlands
- Areas of Environmental Concern
- Located Contaminants
- Receivers
- Quarry Sites
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

IRPL; I2S; GIS, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community, Esri Community Maps Contributors, Spatial Services, Vicmap, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, Foursquare, METI/NASA, USGS

Notes: I2S Low Impact Works



Coordinate System: GDA2020 MGA Zone 55

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Date: 4/12/2024
Author: JH GIS (PH)
Approver: ###

Paper: A3
Scale: 1:2,000
Rev: A

Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 12 OF 75

6800 7000 7100 7200 7300 7400

Legend

- CIZ EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Status E: Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia
- Aboriginal Heritage Surface Artefact Location Points
- Aboriginal Heritage Surface Artefact Collection Areas
- Chainage

Level Crossings
- Public
- Private
- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

Threatened Fauna Species locations - BC Act
- Black Falcon
- Brown Treecreeper
- Diamond Firetail
- Dusky Woodswallow
- Flame Robin
- Grey crowned Babbler
- Little Eagle
- Little Eagle - Nest (Confirmed)
- Spotted Harrier
- Spotted Harrier - Nest (Confirmed)
- Square-tailed Kite
- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White fronted Chat
- Squirrel Glider Habitat
- Large footed Myotis habitat
- Superb Parrot Habitat
- Superb Parrot Breeding Habitat
- Flora - Swainsona Recta
- Prasophyllum petilum
- Euphrasia arguta, Grevillea wilkinsonii,Prasophyllum sp. Wybong
- Diuris tricolor
- Cullen pervum
- Cullen pervum
- Caladenia arenaria, Eleocharis obicis,Indigofera efolata,Swainsona sericea
- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

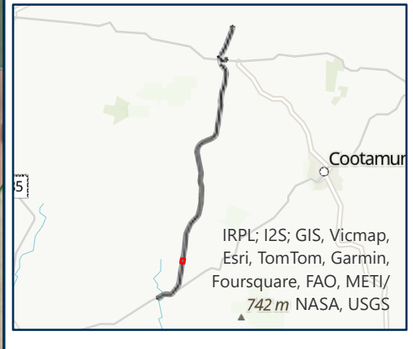
Strahler
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TECs - EPBC Act

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Notes: I2S Low Impact Works



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Paper: A3
Scale: 1:2,000
Rev: A

Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 13 OF 75

ARTC-6

SU7500

7400

7500

7600

7700

7800

7900

8000

Zone 2

Zone 2

Ironbong Road

5

Legend

CIZ EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities

- Exit
- West

Threatened Ecological Communities (BC Act) - Status

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- Aboriginal Heritage Surface Artefact Location Points
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Level Crossings

- Public
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Fauna Records

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- Diuris tricolor
- Cullen parvum
- Cullen parvum
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- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

Strahler

- 0
- 1
- 2
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- 4 - 6
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- Scattered Trees (Paddock Trees)
- Native Vegetation

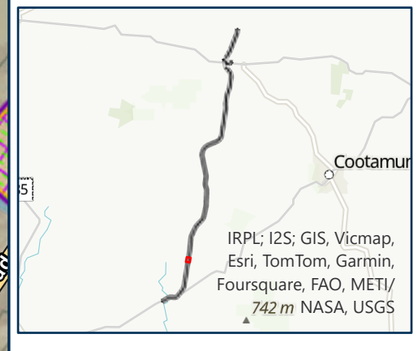
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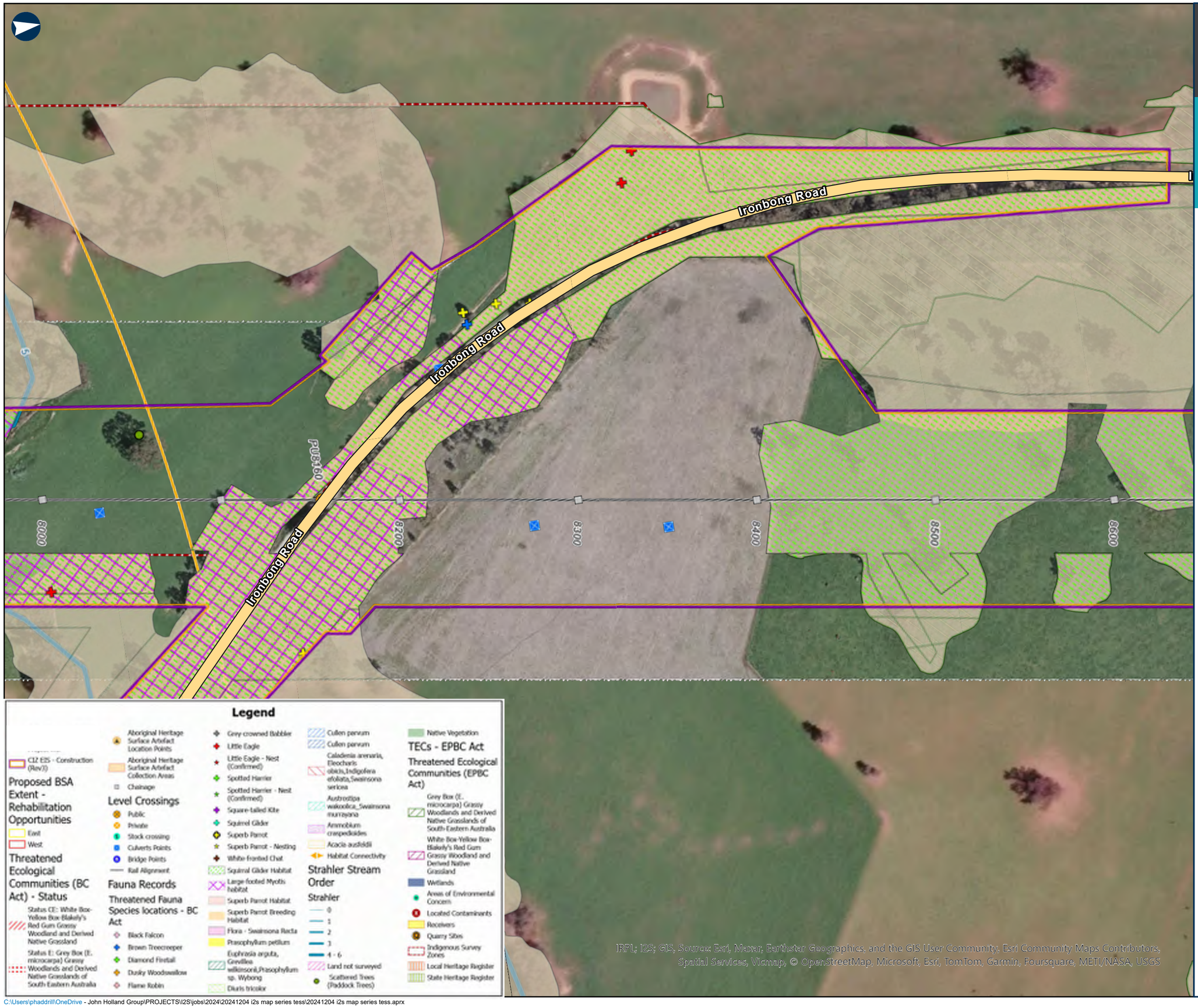
Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 14 OF 75



Legend

- C1Z EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
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- Superb Parrot
- Superb Parrot - Nesting
- White-fronted Chat
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- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

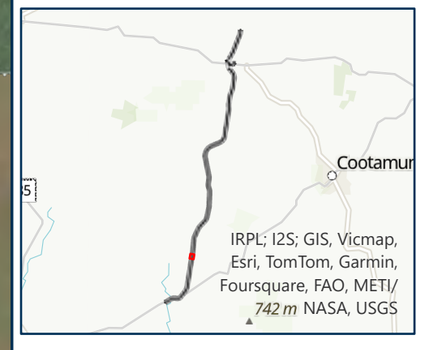
Strahler
- 0
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- 2
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- Native Vegetation

TECs - EPBC Act

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Notes: I2S Low Impact Works

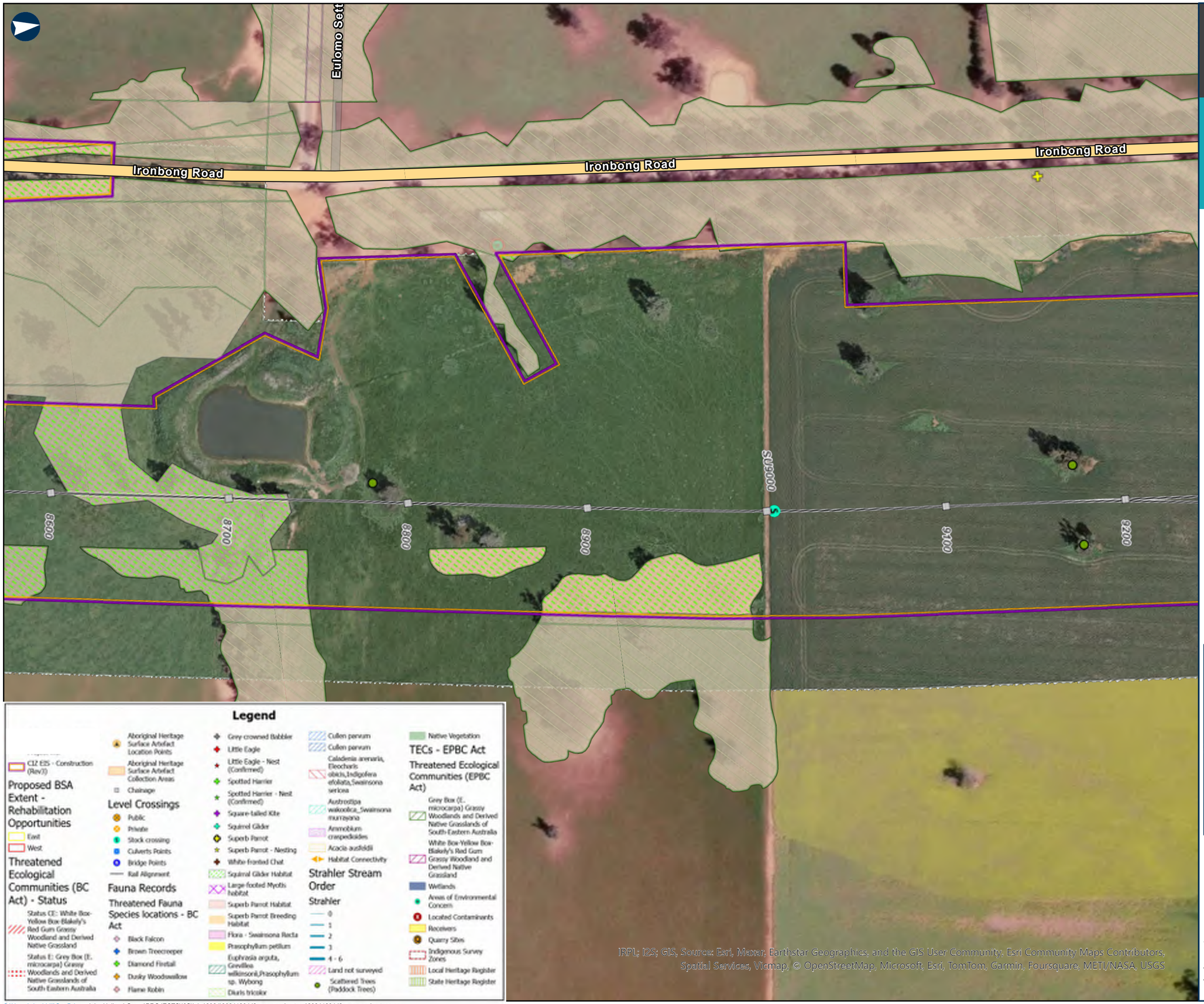


Coordinate System: GDA2020 MGA Zone 55

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Date: 4/12/2024 Paper: A3
Author: JH GIS (PH) Scale: 1:2,000
Approver: ### Rev: A

Data Sources: IRPL, JH



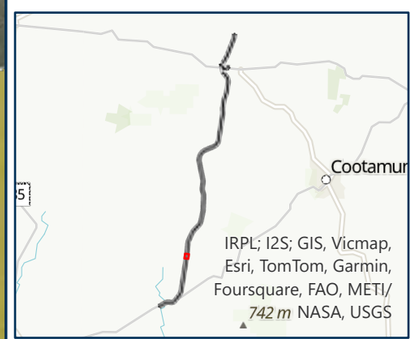
INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 15 OF 75

Notes: I2S Low Impact Works



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Date: 4/12/2024
Author: JH GIS (PH)
Approver: ###

Paper: A3
Scale: 1:2,000
Rev: A

Data Sources: IRPL, JH



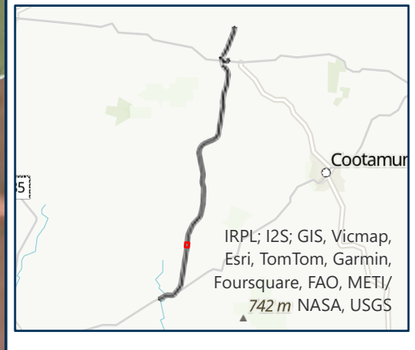
INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 16 OF 75

Notes: I2S Low Impact Works



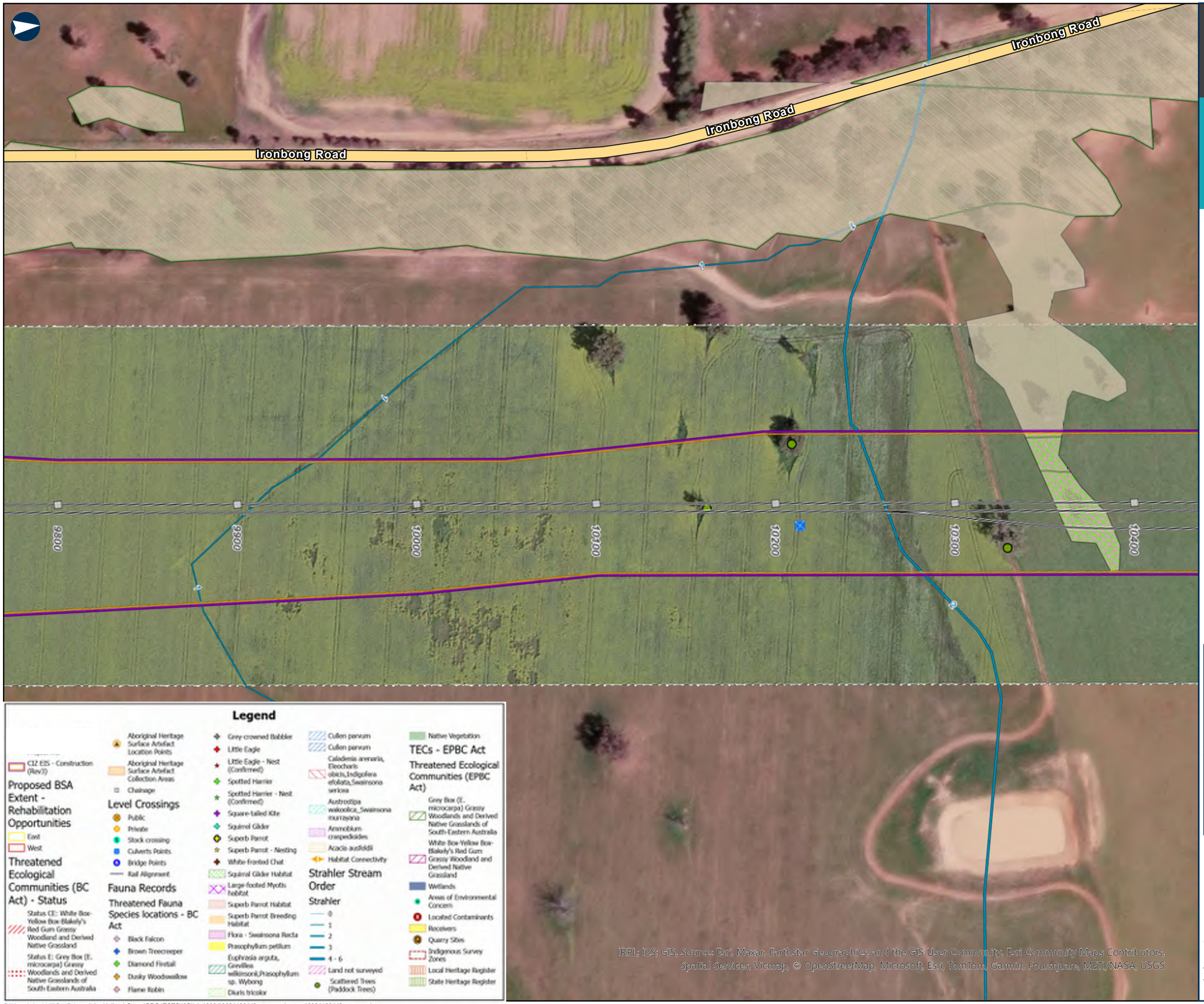
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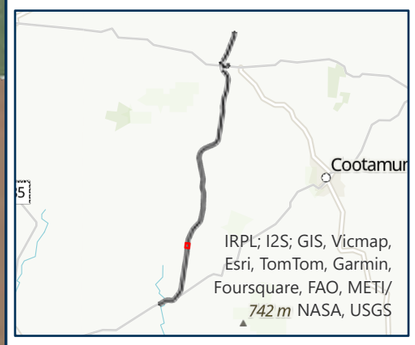
INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 17 OF 75

Notes: I2S Low Impact Works



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Rev: A

Data Sources: IRPL, JH



Legend

CIZ EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
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Aboriginal Heritage Surface Artefact Location Points
Aboriginal Heritage Surface Artefact Collection Areas
Chainage

Level Crossings
- Public
- Private
- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

Threatened Fauna Species locations - BC Act
- Black Falcon
- Brown Treecreeper
- Diamond Firetail
- Dusky Woodswallow
- Flame Robin
- Grey crowned Babbler
- Little Eagle
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- White fronted Chat
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- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)

Native Vegetation

TECs - EPBC Act

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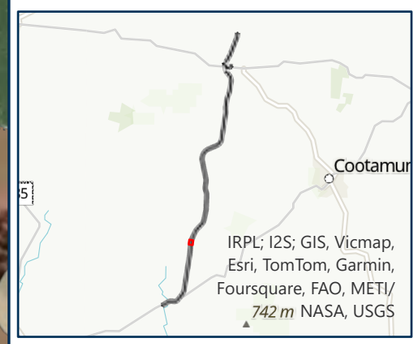
INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 18 OF 75

Notes: I2S Low Impact Works



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Date: 4/12/2024
Author: JH GIS (PH)
Approver: ###

Paper: A3
Scale: 1:2,000
Rev: A

Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 19 OF 75

PU11390

11000 11100 11200 11400 11500 11600

Legend

- C1Z EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
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Strahler Stream Order

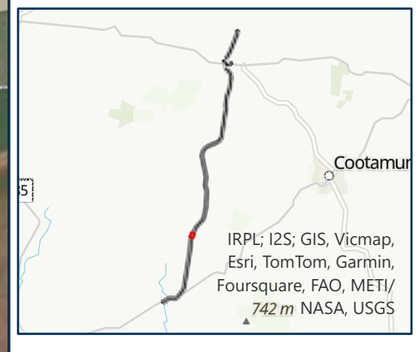
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INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 20 OF 75



Legend

- C1Z EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
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- West

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- Spotted Harrier - Nest (Confirmed)
- Square-tailed Kite
- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White-fronted Chat
- Squirrel Glider Habitat
- Large-footed Myotis habitat
- Superb Parrot Habitat
- Superb Parrot Breeding Habitat
- Flora - Swainsona Recta
- Prasophyllum petilum
- Euphrasia arguta, Grevillea wilkinsonii,Prasophyllum sp. Wybong
- Diuris tricolor
- Cullen pervum
- Cullen pervum
- Caladenia arenaria, Eleocharis obicis,Indigofera efolata,Swainsona sericea
- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

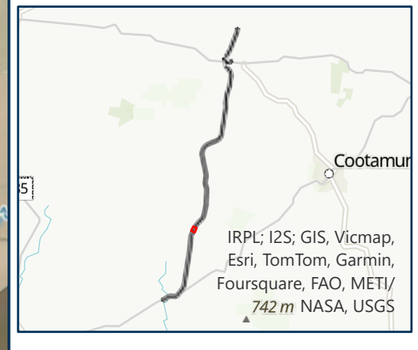
Strahler Stream Order

Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)
- Native Vegetation

TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
- Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Wetlands
- Areas of Environmental Concern
- Located Contaminants
- Receivers
- Quarry Sites
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

Notes: I2S Low Impact Works



Coordinate System: GDA2020 MGA Zone 55

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Date: 4/12/2024 Paper: A3
Author: JH GIS (PH) Scale: 1:2,000
Approver: ### Rev: A

Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 21 OF 75

SUM2700

12200

12300

12400

12500

12600

12700

12800

Legend

- C12 EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Status E: Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia
- Aboriginal Heritage Surface Artefact Location Points
- Aboriginal Heritage Surface Artefact Collection Areas
- Chainage

Level Crossings
- Public
- Private
- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

Threatened Fauna Species locations - BC Act
- Black Falcon
- Brown Treecreeper
- Diamond Firetail
- Dusky Woodswallow
- Flame Robin
- Grey crowned Babbler
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- Little Eagle - Nest (Confirmed)
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- Superb Parrot - Nesting
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- Cullen pervum
- Cullen pervum
- Caladenia arenaria, Eleocharis obicis,Indigofera efoliata,Swainsona seriona
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- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

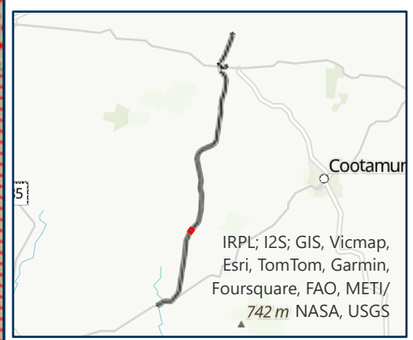
Strahler
- 0
- 1
- 2
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TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
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- Receivers
- Quarry Sites
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

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Notes: I2S Low Impact Works



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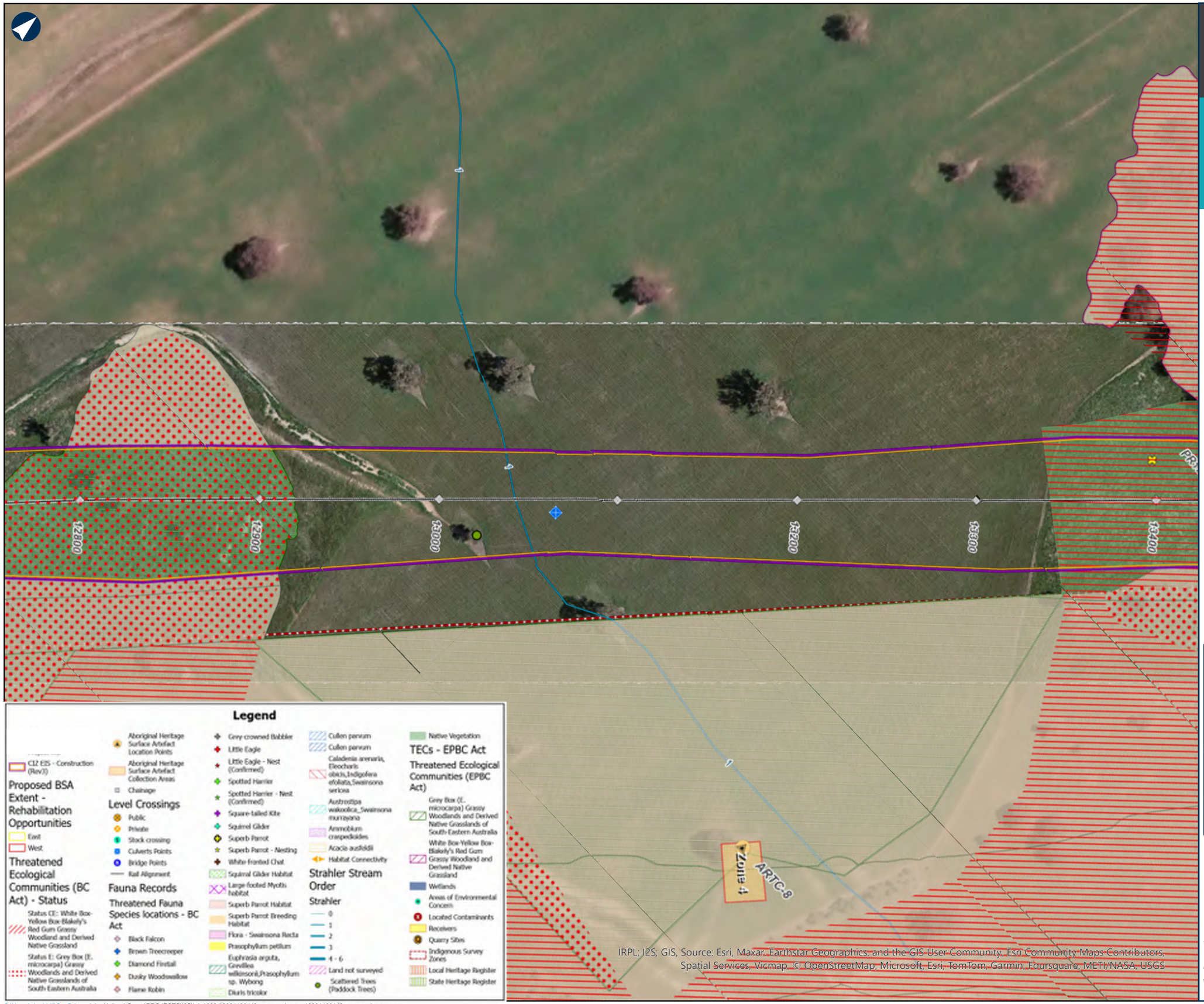
Data Sources: IRPL, JH

INLAND RAIL

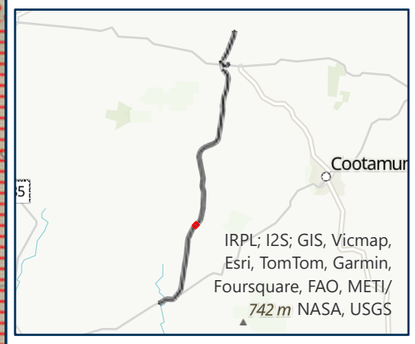
LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 22 OF 75



Notes: I2S Low Impact Works



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Approver: ###

Paper: A3
Scale: 1:2,000
Rev: A

Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 23 OF 75

FR2700

SU13700

13400

13500

13600

13800

13900

14000

Legend

- C12 EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Status E: Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia
- Aboriginal Heritage Surface Artefact Location Points
- Aboriginal Heritage Surface Artefact Collection Areas
- Chainage

Level Crossings
- Public
- Private
- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

Threatened Fauna Species locations - BC Act
- Black Falcon
- Brown Treecreeper
- Diamond Firetail
- Dusky Woodswallow
- Flame Robin
- Grey crowned Babbler
- Little Eagle
- Little Eagle - Nest (Confirmed)
- Spotted Harrier
- Spotted Harrier - Nest (Confirmed)
- Square-tailed Kite
- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White Fronted Chat
- Squirrel Glider Habitat
- Large footed Myotis habitat
- Superb Parrot Habitat
- Superb Parrot Breeding Habitat
- Flora - Swainsona Recta
- Prasophyllum petilum
- Euphrasia arguta, Grevillea wilkinsonii,Prasophyllum sp. Wybong
- Diuris tricolor
- Cullen pervum
- Cullen pervum
- Caladenia arenaria, Eleocharis obicis,Indigofera efolata,Swainsona serlosa
- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

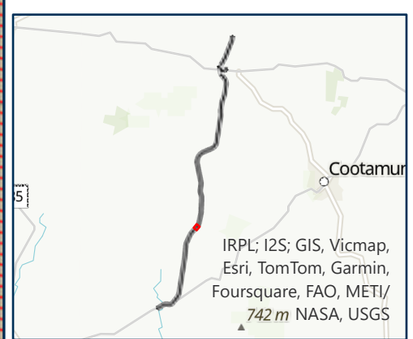
Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)
- Native Vegetation

TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
- Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Wetlands
- Areas of Environmental Concern
- Located Contaminants
- Receivers
- Quarry SSIs
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

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Notes: I2S Low Impact Works



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Approver: ### Rev: A

Data Sources: IRPL, JH

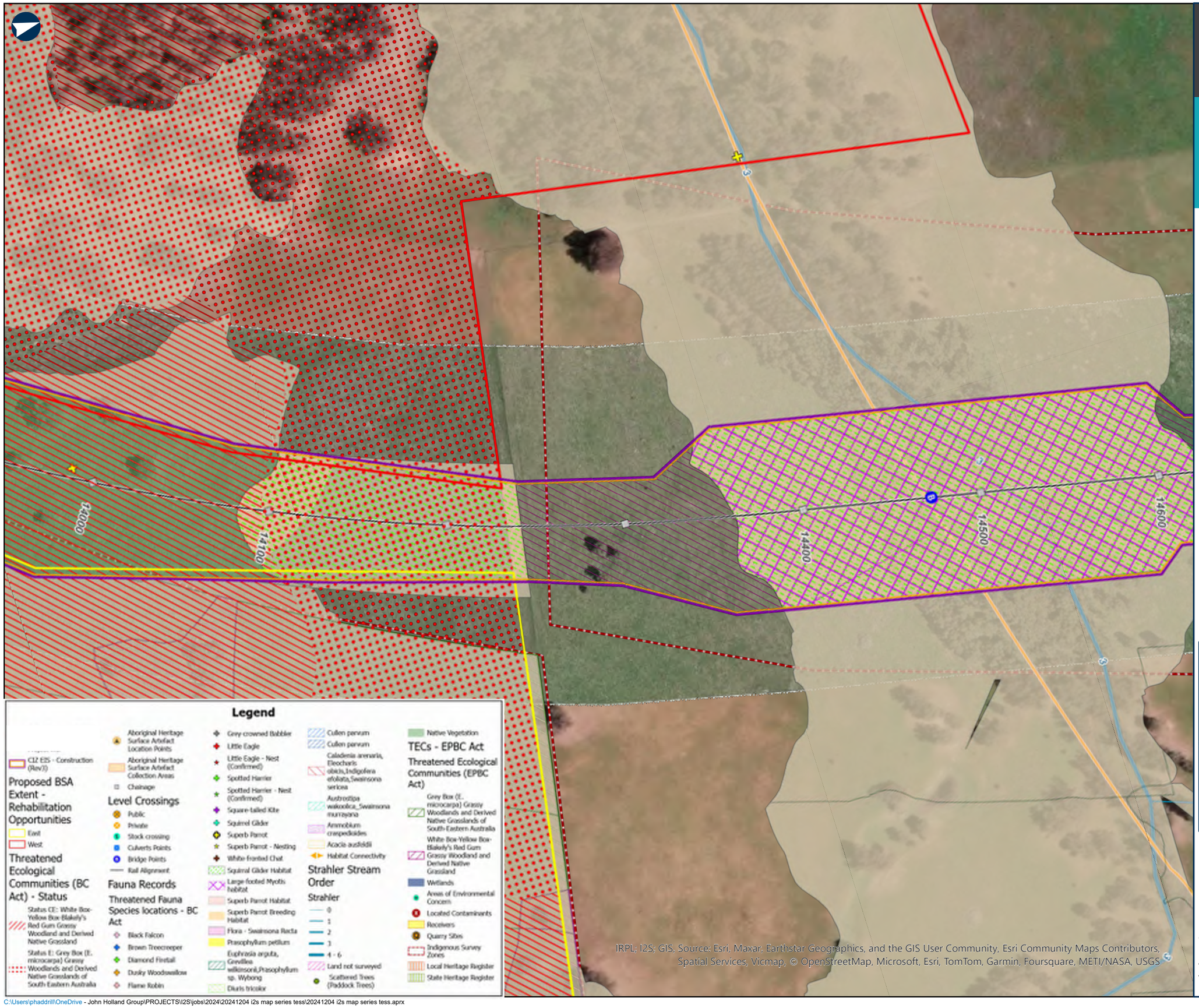
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INLAND RAIL

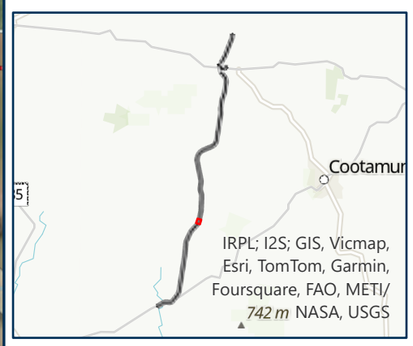
LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 24 OF 75



Notes: I2S Low Impact Works



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Approver: ###

Paper: A3
Scale: 1:2,000
Rev: A

Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 25 OF 75

14600 14700 14800 14900 15000 15100 15200

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Legend

C1Z EIS - Construction (Rev1)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Status E: Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia

- Aboriginal Heritage Surface Artefact Location Points
- Aboriginal Heritage Surface Artefact Collection Areas
- Chainage

Level Crossings
- Public
- Private
- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

Threatened Fauna Species locations - BC Act
- Black Falcon
- Brown Treecreeper
- Diamond Firetail
- Dusky Woodswallow
- Flame Robin
- Grey-crowned Babbler
- Little Eagle
- Little Eagle - Nest (Confirmed)
- Spotted Harrier
- Spotted Harrier - Nest (Confirmed)
- Square-tailed Kite
- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White-fronted Chat
- Squirrel Glider Habitat
- Large-footed Myotis habitat
- Superb Parrot Habitat
- Superb Parrot Breeding Habitat
- Flora - Swainsona Recta
- Prasophyllum petilum
- Euphrasia arguta, Grevillea wilkinsonii,Prasophyllum sp. Wybong
- Diuris tricolor
- Cullen pervum
- Cullen pervum
- Caladenia arenaria, Eleocharis obicis,Indigofera efoliata,Swainsona sericea
- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

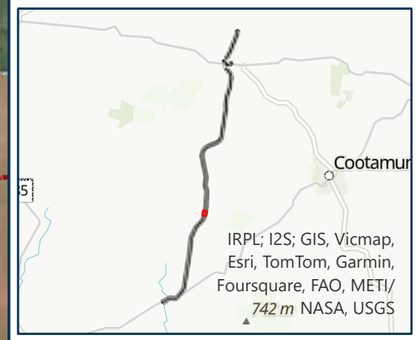
Strahler Stream Order

Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)
- Native Vegetation

TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
- Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Wetlands
- Areas of Environmental Concern
- Located Contaminants
- Receivers
- Quarry Sites
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

Notes: I2S Low Impact Works



Coordinate System: GDA2020 MGA Zone 55

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Approver: ###

Paper: A3
Scale: 1:2,000
Rev: A

Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 26 OF 75

15200 15300 15400 15500 15600 15700 15800

Legend

CIZ EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
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Aboriginal Heritage Surface Artefact Location Points
Aboriginal Heritage Surface Artefact Collection Areas
Chainage

Level Crossings
- Public
- Private
- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

Threatened Fauna Species locations - BC Act
- Black Falcon
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- Superb Parrot - Nesting
- White fronted Chat
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- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

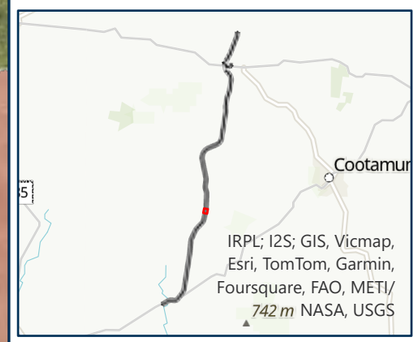
Strahler
- 0
- 1
- 2
- 3
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- Scattered Trees (Paddock Trees)
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TECs - EPBC Act

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Approver: ###

Paper: A3
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Rev: A

Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 27 OF 75

PM5550

15800 15600 15400 15200 15000 14800 14600 14400

Legend

- C1Z EIS - Construction (Rev1)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
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- Bridge Points
- Rail Alignment

Fauna Records

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- Caladenia arenaria, Eleocharis obicis,Indigofera efoliata,Swainsona sericea
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- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

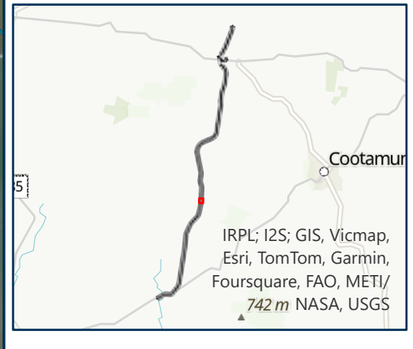
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Approver: ### Rev: A

Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 28 OF 75

16400 16500 16600 16700 16800 16900 17000

Legend

CIZ EIS - Construction (Rev1)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
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Aboriginal Heritage Surface Artefact Location Points
Aboriginal Heritage Surface Artefact Collection Areas
Chainage

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- Habitat Connectivity

Strahler Stream Order

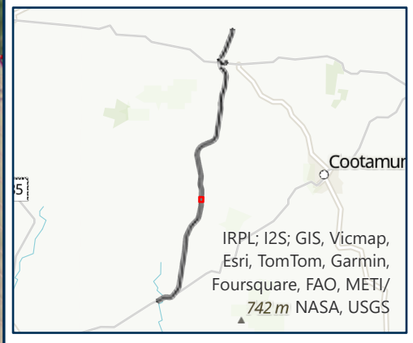
Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)
- Native Vegetation

TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
- Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South-Eastern Australia
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Wetlands
- Areas of Environmental Concern
- Located Contaminants
- Receivers
- Quarry Sites
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

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Notes: I2S Low Impact Works



Coordinate System: GDA2020 MGA Zone 55

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Date: 4/12/2024 Paper: A3
Author: JH GIS (PH) Scale: 1:2,000
Approver: ### Rev: A

Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

SUTTER

17000 17100 17200 17300 17400 17500 17600

Legend

- C1Z EIS - Construction (Rev1)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Status E: Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia

- Aboriginal Heritage Surface Artefact Location Points
- Aboriginal Heritage Surface Artefact Collection Areas
- Chainage

Level Crossings
- Public
- Private
- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

Threatened Fauna Species locations - BC Act
- Black Falcon
- Brown Treecreeper
- Diamond Firetail
- Dusky Woodswallow
- Flame Robin
- Grey-crowned Babbler
- Little Eagle
- Little Eagle - Nest (Confirmed)
- Spotted Harrier
- Spotted Harrier - Nest (Confirmed)
- Square-tailed Kite
- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White-fronted Chat
- Squirrel Glider Habitat
- Large-footed Myotis habitat
- Superb Parrot Habitat
- Superb Parrot Breeding Habitat
- Flora - Swainsona Recta
- Prasophyllum petilum
- Euphrasia arguta, Grevillea wilkinsonii,Prasophyllum sp. Wybong
- Diuris tricolor
- Cullen pervum
- Cullen pervum
- Caladenia arenaria, Eleocharis obicis,Indigofera efoliata,Swainsona sericea
- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)

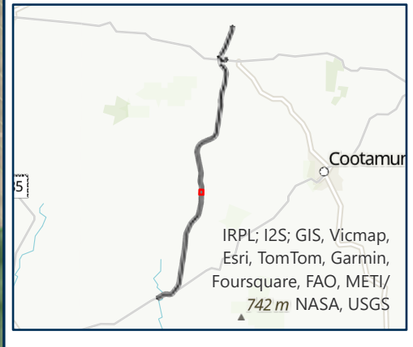
- Native Vegetation

TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
- Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Wetlands
- Areas of Environmental Concern
- Located Contaminants
- Receivers
- Quarry Sites
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

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Notes: I2S Low Impact Works



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Date: 4/12/2024
Author: JH GIS (PH)
Approver: ###

Paper: A3
Scale: 1:2,000
Rev: A

Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 30 OF 75

17200
17700
17800
17900
18000
18100

Legend

CIZ EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Status E: Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia

Aboriginal Heritage Surface Artefact Location Points
Aboriginal Heritage Surface Artefact Collection Areas
Chainage

Level Crossings
- Public
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- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

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- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White Fronted Chat

Squirrel Glider Habitat
Large footed Myotis habitat
Superb Parrot Habitat
Superb Parrot Breeding Habitat
Flora - Swainsona Recta
Prasophyllum petilum
Euphrasia arguta, Grevillea wilkinsonii,Prasophyllum sp. Wybong
Diuris tricolor

Cullen pervum
Cullen pervum
Caladenia arenaria, Eleocharis obicis,Indigofera efolata,Swainsona sericea
Austrostipa wakoolica_Swainsona murrayana
Ammobium craspedioides
Acacia ausfeldii
Habitat Connectivity

Strahler Stream Order

Strahler
- 0
- 1
- 2
- 3
- 4 - 6

Land not surveyed
Scattered Trees (Paddock Trees)

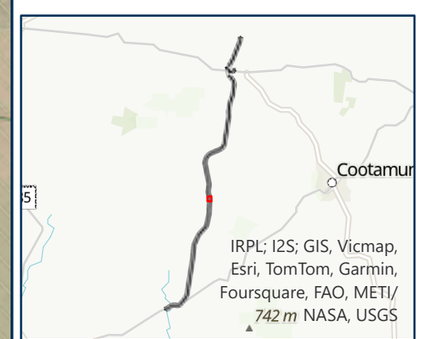
Native Vegetation

TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
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- Located Contaminants
- Receivers
- Quarry SBIs
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

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Rev: A

Data Sources: IRPL, JH

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INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 31 OF 75

Dirnaseer Road

12200 12300 12400 18700 18800

Legend

- C1Z EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
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- Chainage

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- Public
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- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

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- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White-fronted Chat
- Squirrel Glider Habitat
- Large-footed Myotis habitat
- Superb Parrot Habitat
- Superb Parrot Breeding Habitat
- Flora - Swainsona Recta
- Prasophyllum petilum
- Euphrasia arguta, Grevillea wilkinsonii,Prasophyllum sp. Wybong
- Diuris tricolor
- Cullen pervum
- Cullen pervum
- Caladenia arenaria, Eleocharis obicis,Indigofera efolata,Swainsona sericea
- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

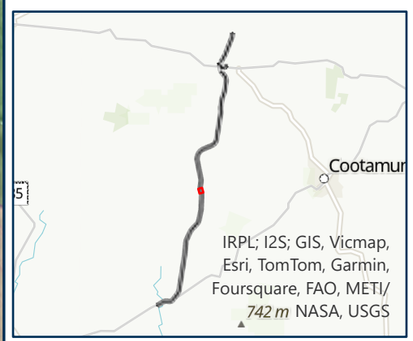
Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)
- Native Vegetation

TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
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Author: JH GIS (PH) Scale: 1:2,000
Approver: ### Rev: A

Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 32 OF 75

18800
18900
19000
19100
19300

Legend

CIZ EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
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Aboriginal Heritage Surface Artefact Location Points
Aboriginal Heritage Surface Artefact Collection Areas
Chainage

Level Crossings
- Public
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- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

Threatened Fauna Species locations - BC Act
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- Spotted Harrier - Nest (Confirmed)
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- Superb Parrot
- Superb Parrot - Nesting
- White-fronted Chat
- Squirrel Glider Habitat
- Large-footed Myotis habitat
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- Flora - Swainsona Recta
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- Euphrasia arguta, Grevillea wilkinsonii,Prasophyllum sp. Wybong
- Diuris tricolor
- Cullen pervum
- Cullen pervum
- Caladenia arenaria, Eleocharis obicis,Indigofera efolata,Swainsona sericea
- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

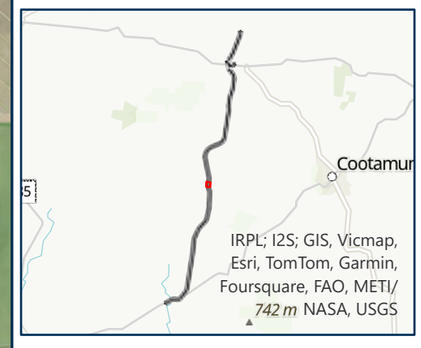
Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)
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TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
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Approver: ###

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Rev: A

Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 33 OF 75

19400 19500 19600 19700 RR9800 SVR9000

Legend

CIZ EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
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Aboriginal Heritage Surface Artefact Location Points
Aboriginal Heritage Surface Artefact Collection Areas
Chainage

Level Crossings
- Public
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- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

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- Superb Parrot - Nesting
- White-fronted Chat
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- Flora - Swainsona Recta
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- Cullen pervum
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- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

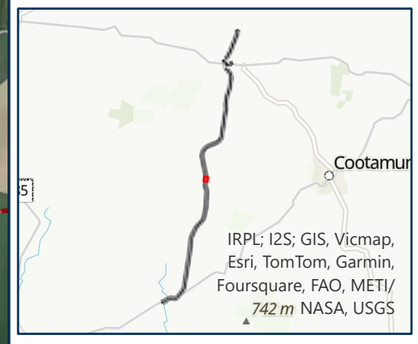
Strahler
- 0
- 1
- 2
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TECs - EPBC Act

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Paper: A3
Scale: 1:2,000
Rev: A

Data Sources: IRPL, JH

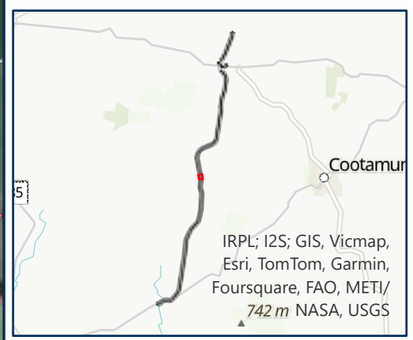
INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 34 OF 75

Notes: I2S Low Impact Works



Coordinate System: GDA2020 MGA Zone 55

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Date: 4/12/2024
Author: JH GIS (PH)
Approver: ###

Paper: A3
Scale: 1:2,000
Rev: A

Data Sources: IRPL, JH

Legend

CIZ EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
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Aboriginal Heritage Surface Artefact Location Points
Aboriginal Heritage Surface Artefact Collection Areas
Chainage

Level Crossings
- Public
- Private
- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

Threatened Fauna Species locations - BC Act
- Black Falcon
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- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)

- Native Vegetation

TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
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- Located Contaminants
- Receivers
- Quarry Sites
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 35 OF 75

20600 20700 20800 20900 21000 21100

Legend

- CIZ EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
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Strahler Stream Order

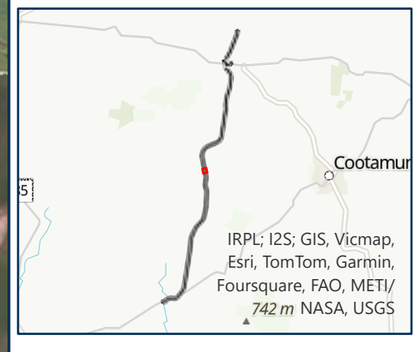
Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)
- Native Vegetation

TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
- Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Wetlands
- Areas of Environmental Concern
- Located Contaminants
- Receivers
- Quarry Sites
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

IRPL; I2S; GIS, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community, Esri Community Maps Contributors, Spatial Services, Vicmap, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, Foursquare, METI/NASA, USGS

Notes: I2S Low Impact Works



Coordinate System: GDA2020 MGA Zone 55

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Date: 4/12/2024
Author: JH GIS (PH)
Approver: ###

Paper: A3
Scale: 1:2,000
Rev: A

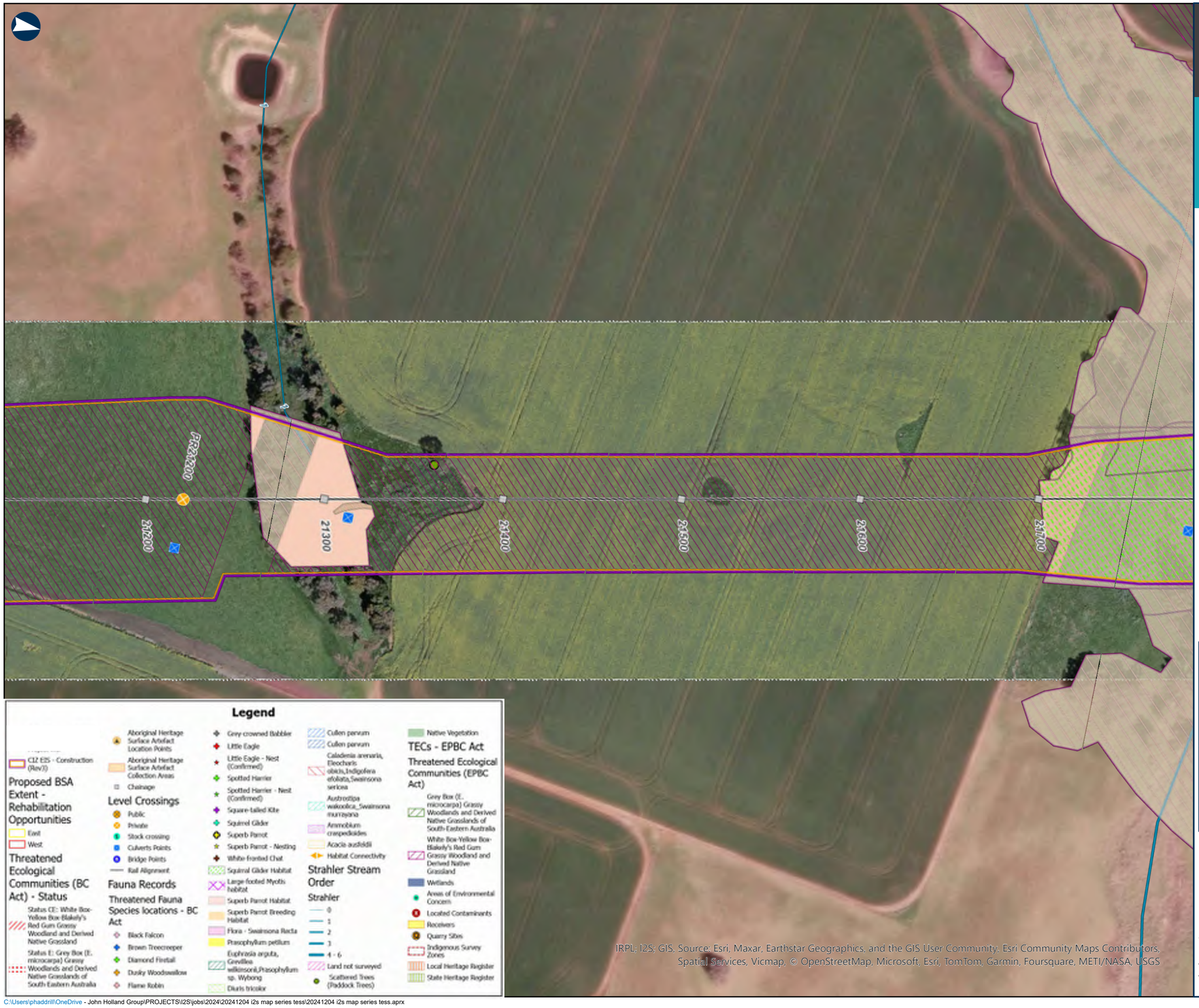
Data Sources: IRPL, JH

INLAND RAIL

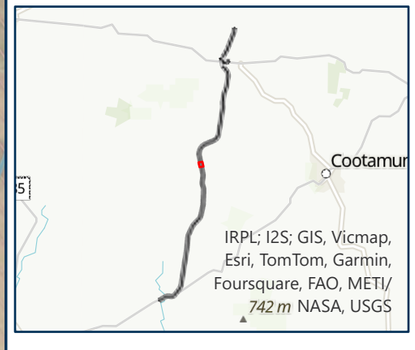
LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 36 OF 75



Notes: I2S Low Impact Works



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Paper: A3
Scale: 1:2,000
Rev: A

Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 37 OF 75

21800
21900
22000
22100
22200
22300

Legend

CIZ EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Status E: Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia

- Aboriginal Heritage Surface Artefact Location Points
- Aboriginal Heritage Surface Artefact Collection Areas
- Chainage

Level Crossings
- Public
- Private
- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

Threatened Fauna Species locations - BC Act
- Black Falcon
- Brown Treecreeper
- Diamond Firetail
- Dusky Woodswallow
- Flame Robin
- Grey-crowned Babbler
- Little Eagle
- Little Eagle - Nest (Confirmed)
- Spotted Harrier
- Spotted Harrier - Nest (Confirmed)
- Square-tailed Kite
- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White-fronted Chat
- Squirrel Glider Habitat
- Large-footed Myotis habitat
- Superb Parrot Habitat
- Superb Parrot Breeding Habitat
- Flora - Swainsona Recta
- Prasophyllum petilum
- Euphrasia arguta, Grevillea wilkinsonii,Prasophyllum sp. Wybong
- Diuris tricolor
- Cullen pervum
- Cullen pervum
- Caladenia arenaria, Eleocharis obicis,Indigofera efolata,Swainsona sericea
- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

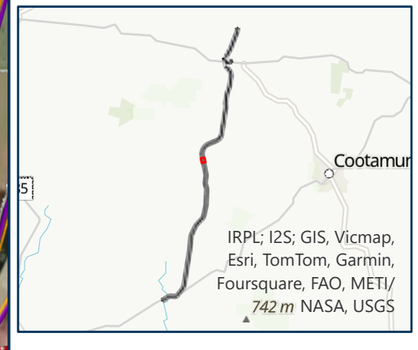
Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)
- Native Vegetation

TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
- Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Wetlands
- Areas of Environmental Concern
- Located Contaminants
- Receivers
- Quarry Sites
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

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Notes: I2S Low Impact Works



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Rev: A

Data Sources: IRPL, JH

INLAND RAIL

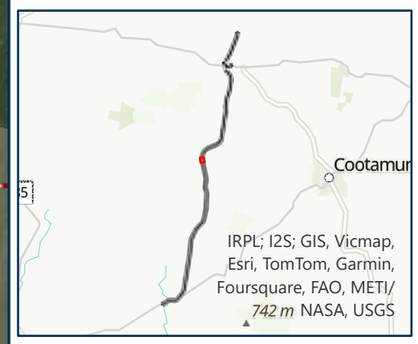
LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 38 OF 75



Notes: I2S Low Impact Works



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Paper: A3
Scale: 1:2,000
Rev: A

Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 39 OF 75

SUP2400

25000

25100

25200

24900

24800

Legend

- C12 EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Status E: Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia

- Aboriginal Heritage Surface Artefact Location Points
- Aboriginal Heritage Surface Artefact Collection Areas
- Chainage

Level Crossings
- Public
- Private
- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

Threatened Fauna Species locations - BC Act
- Black Falcon
- Brown Treecreeper
- Diamond Firetail
- Dusky Woodswallow
- Flame Robin
- Grey crowned Babbler
- Little Eagle
- Little Eagle - Nest (Confirmed)
- Spotted Harrier
- Spotted Harrier - Nest (Confirmed)
- Square-tailed Kite
- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White Fronted Chat
- Squirrel Glider Habitat
- Large-footed Myotis habitat
- Superb Parrot Habitat
- Superb Parrot Breeding Habitat
- Flora - Swainsona Recta
- Prasophyllum petilum
- Euphrasia arguta, Grevillea wilkinsonii,Prasophyllum sp. Wybong
- Diuris tricolor
- Cullen pervum
- Cullen pervum
- Caladenia arenaria, Eleocharis obicis,Indigofera efolata,Swainsona serlona
- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

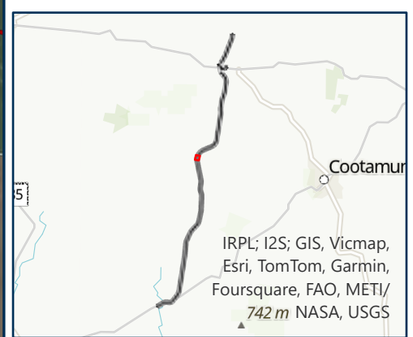
Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)
- Native Vegetation

TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
- Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Wetlands
- Areas of Environmental Concern
- Located Contaminants
- Receivers
- Quarry Sites
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

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Notes: I2S Low Impact Works



Coordinate System: GDA2020 MGA Zone 55

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Scale: 1:2,000
Rev: A

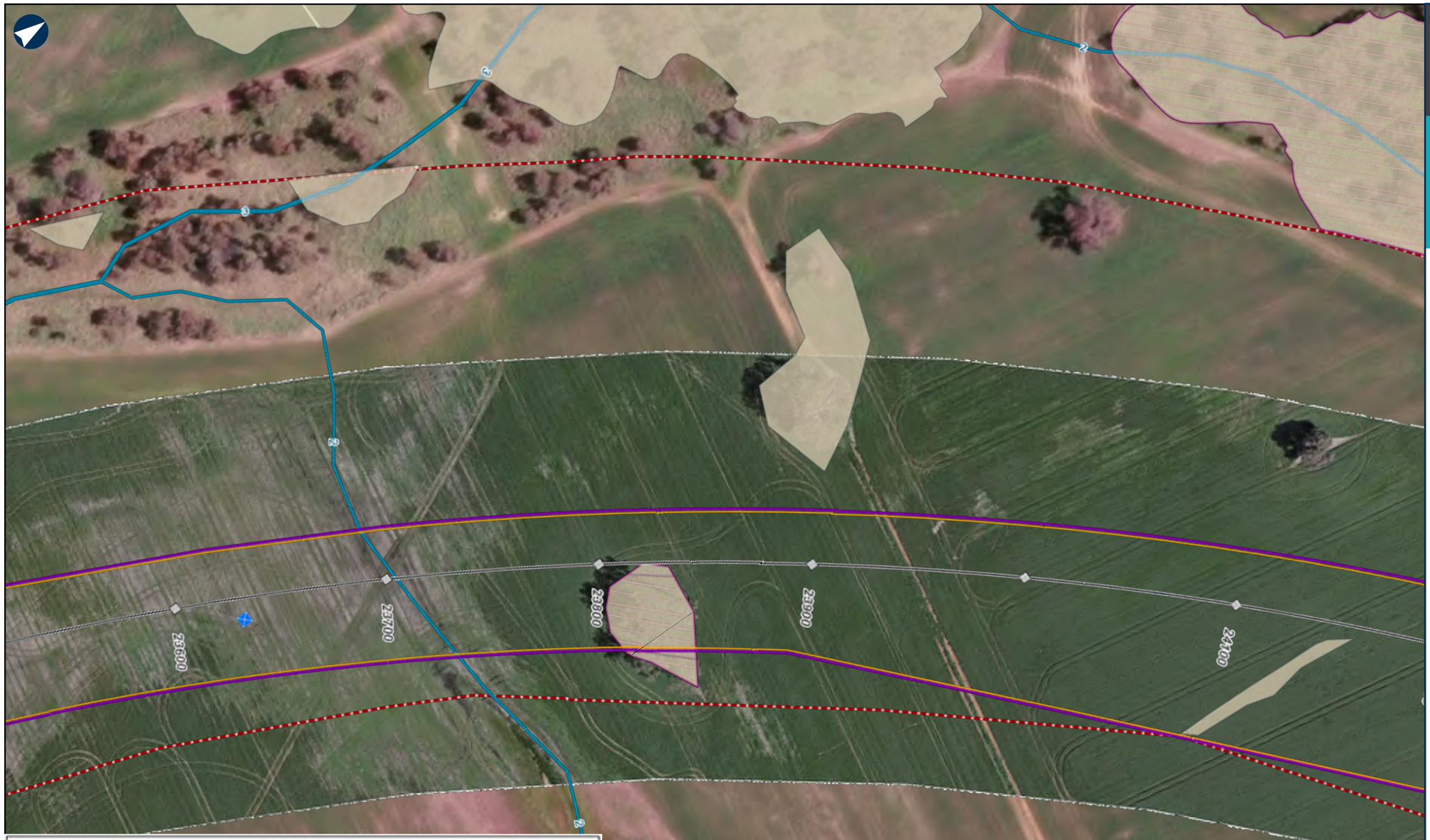
Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 40 OF 75



Legend

CIZ EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Status E: Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia

Aboriginal Heritage Surface Artefact Location Points
Aboriginal Heritage Surface Artefact Collection Areas
Chainage

Level Crossings
- Public
- Private
- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

Threatened Fauna Species locations - BC Act
- Black Falcon
- Brown Treecreeper
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- Flame Robin
- Grey crowned Babbler
- Little Eagle
- Little Eagle - Nest (Confirmed)
- Spotted Harrier
- Spotted Harrier - Nest (Confirmed)
- Square-tailed Kite
- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White fronted Chat
- Squirrel Glider Habitat
- Large footed Myotis habitat
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- Flora - Swainsona Recta
- Prasophyllum petilum
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- Diuris tricolor
- Cullen parvum
- Cullen parvum
- Caladenia arenaria, Eleocharis obicis,Indigofera efolata,Swainsona sericea
- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)

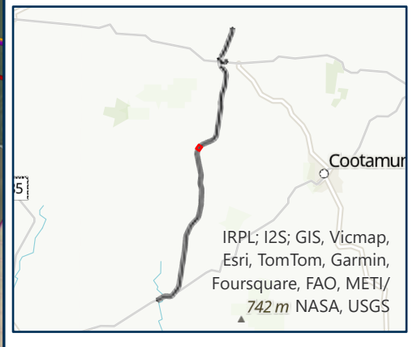
- Native Vegetation

TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
- Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Wetlands
- Areas of Environmental Concern
- Located Contaminants
- Receivers
- Quarry Sites
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

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Notes: I2S Low Impact Works



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Author: JH GIS (PH)
Approver: ###

Paper: A3
Scale: 1:2,000
Rev: A

Data Sources: IRPL, JH

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INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 41 OF 75

24200
24300
24400
24500
24600
24700

Legend

CIZ EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Status E: Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia

- Aboriginal Heritage Surface Artefact Location Points
- Aboriginal Heritage Surface Artefact Collection Areas
- Chainage

Level Crossings
- Public
- Private
- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

Threatened Fauna Species locations - BC Act
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- Diamond Firetail
- Dusky Woodswallow
- Flame Robin
- Grey crowned Babbler
- Little Eagle
- Little Eagle - Nest (Confirmed)
- Spotted Harrier
- Spotted Harrier - Nest (Confirmed)
- Square-tailed Kite
- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White fronted Chat
- Squirrel Glider Habitat
- Large footed Myotis habitat
- Superb Parrot Habitat
- Superb Parrot Breeding Habitat
- Flora - Swainsona Recta
- Prasophyllum petilum
- Euphrasia arguta, Grevillea wilkinsonii,Prasophyllum sp. Wybong
- Diuris tricolor
- Cullen pervum
- Cullen pervum
- Caladenia arenaria, Eleocharis obicis,Indigofera efolata,Swainsona sericea
- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

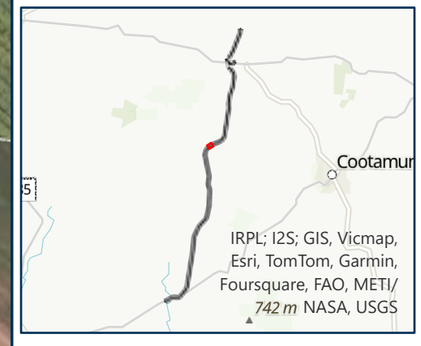
Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)
- Native Vegetation

TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
- Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South-Eastern Australia
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Wetlands
- Areas of Environmental Concern
- Located Contaminants
- Receivers
- Quarry Sites
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

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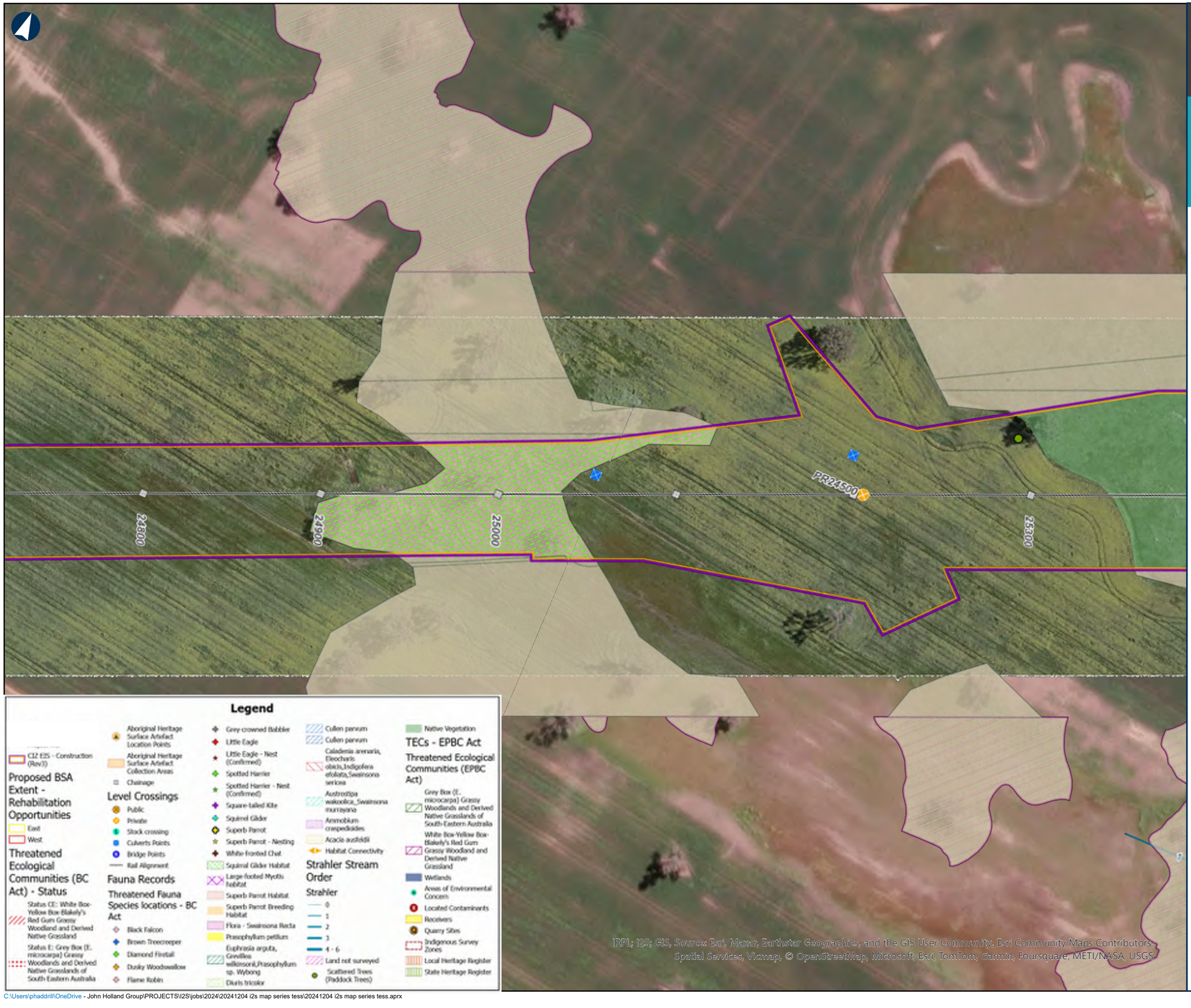
Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 42 OF 75



Legend

- C1Z EIS - Construction (Rev1)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Status E: Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia
- Aboriginal Heritage Surface Artefact Location Points
- Aboriginal Heritage Surface Artefact Collection Areas
- Chainage

Level Crossings
- Public
- Private
- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

Threatened Fauna Species locations - BC Act
- Black Falcon
- Brown Treecreeper
- Diamond Firetail
- Dusky Woodswallow
- Flame Robin
- Grey-crowned Babbler
- Little Eagle
- Little Eagle - Nest (Confirmed)
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- Square-tailed Kite
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- Flora - Swainsona Recta
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- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)
- Native Vegetation

TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
- Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Wetlands
- Areas of Environmental Concern
- Located Contaminants
- Receivers
- Quarry Sites
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

Notes: I2S Low Impact Works



Coordinate System: GDA2020 MGA Zone 55

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Date: 4/12/2024 Paper: A3
Author: JH GIS (PH) Scale: 1:2,000
Approver: ### Rev: A

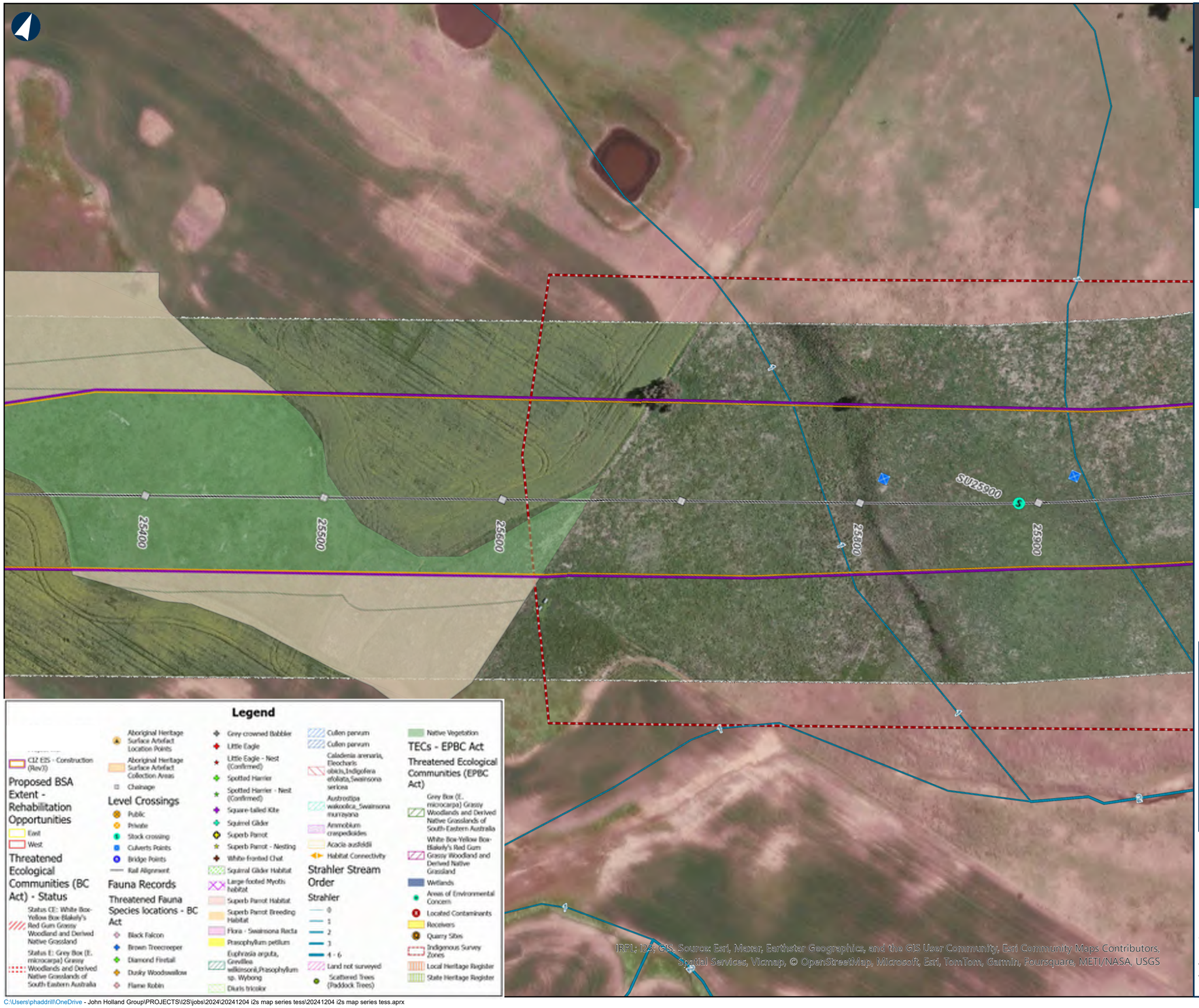
Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 43 OF 75



Legend

- C1Z E2S - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Status E: Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia

- Aboriginal Heritage Surface Artefact Location Points
- Aboriginal Heritage Surface Artefact Collection Areas
- Chainage

Level Crossings
- Public
- Private
- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

Threatened Fauna Species locations - BC Act
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- Brown Treecreeper
- Diamond Firetail
- Dusky Woodswallow
- Flame Robin
- Grey crowned Babbler
- Little Eagle
- Little Eagle - Nest (Confirmed)
- Spotted Harrier
- Spotted Harrier - Nest (Confirmed)
- Square-tailed Kite
- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White Fronted Chat
- Squirrel Glider Habitat
- Large footed Myotis habitat
- Superb Parrot Habitat
- Superb Parrot Breeding Habitat
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- Prasophyllum petilum
- Euphrasia arguta, Grevillea wilkinsonii,Prasophyllum sp. Wybong
- Diuris tricolor
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- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

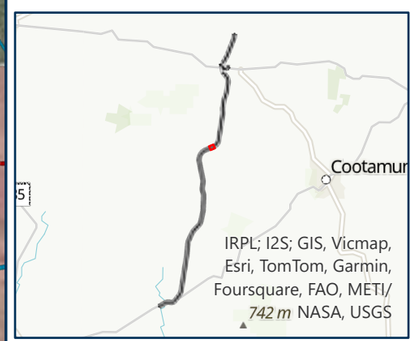
Strahler Stream Order

Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)
- Native Vegetation

TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
- Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South-Eastern Australia
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Wetlands
- Areas of Environmental Concern
- Located Contaminants
- Receivers
- Quarry Sites
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

Notes: I2S Low Impact Works



Coordinate System: GDA2020 MGA Zone 55

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Date: 4/12/2024 Paper: A3
Author: JH GIS (PH) Scale: 1:2,000
Approver: ### Rev: A

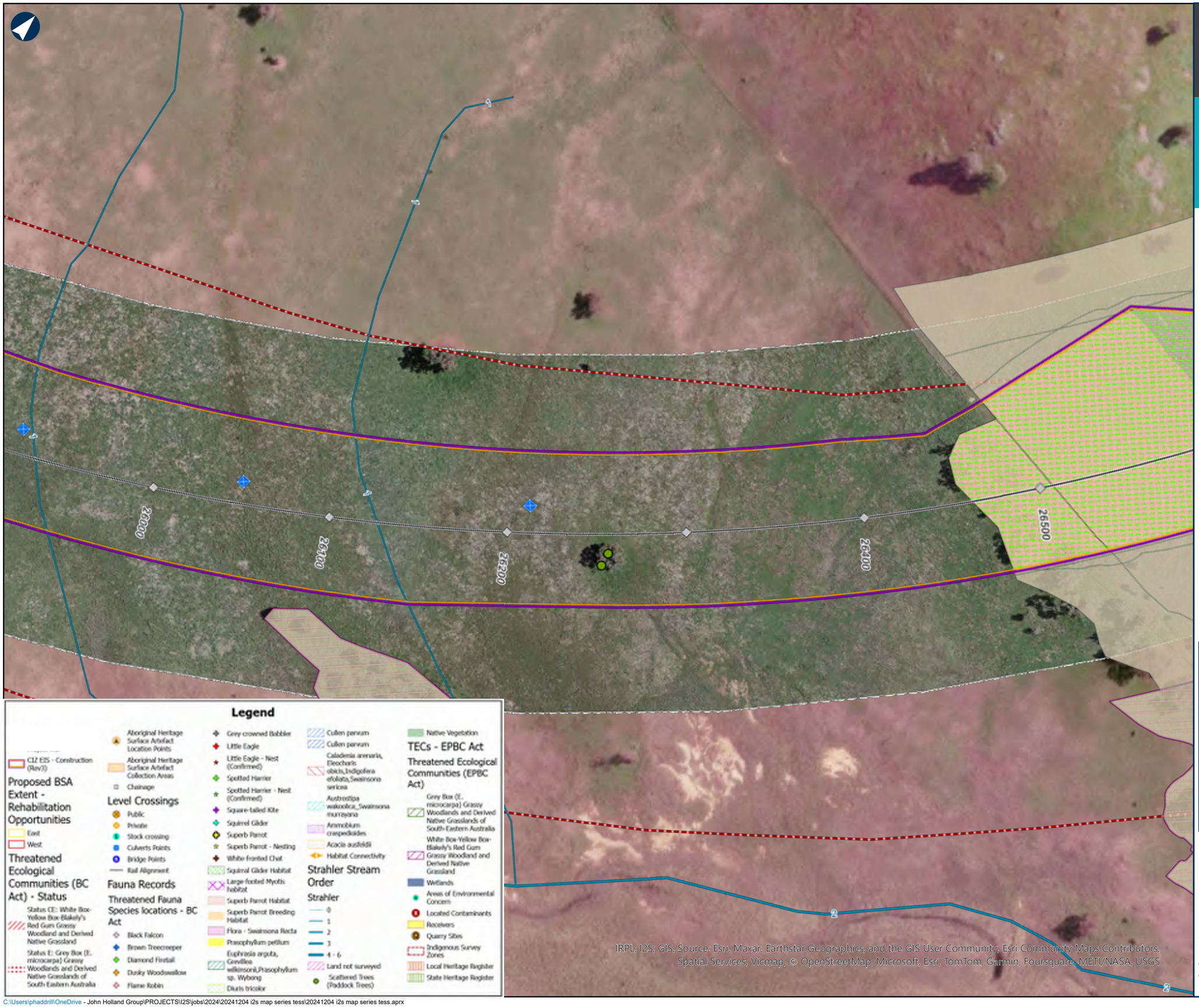
Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 44 OF 75



Legend

- CIZ EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities

- East
- West

Threatened Ecological Communities (BC Act) - Status

- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Status E: Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia
- Aboriginal Heritage Surface Artefact Location Points
- Aboriginal Heritage Surface Artefact Collection Areas
- Chainage

Level Crossings

- Public
- Private
- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

Threatened Fauna Species locations - BC Act

- Black Falcon
- Brown Treecreeper
- Diamond Firetail
- Dusky Woodswallow
- Flame Robin
- Grey crowned Babbler
- Little Eagle
- Little Eagle - Nest (Confirmed)
- Spotted Harrier
- Spotted Harrier - Nest (Confirmed)
- Square-tailed Kite
- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White Fronted Chat
- Squirrel Glider Habitat
- Large footed Myotis habitat
- Superb Parrot Habitat
- Superb Parrot Breeding Habitat
- Flora - Swainsona Recta
- Prasophyllum petilum
- Euphrasia arguta, Grevillea wilkinsonii,Prasophyllum sp. Wybong
- Diuris tricolor
- Cullen pervum
- Cullen pervum
- Caladenia arenaria, Eleocharis obicis,Indigofera efolata,Swainsona sericea
- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

Strahler

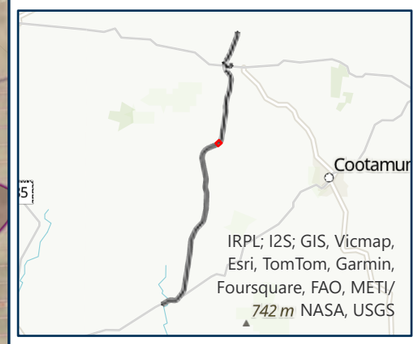
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)
- Native Vegetation

TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)

- Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Wetlands
- Areas of Environmental Concern
- Located Contaminants
- Receivers
- Quarry SIbis
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

Notes: I2S Low Impact Works



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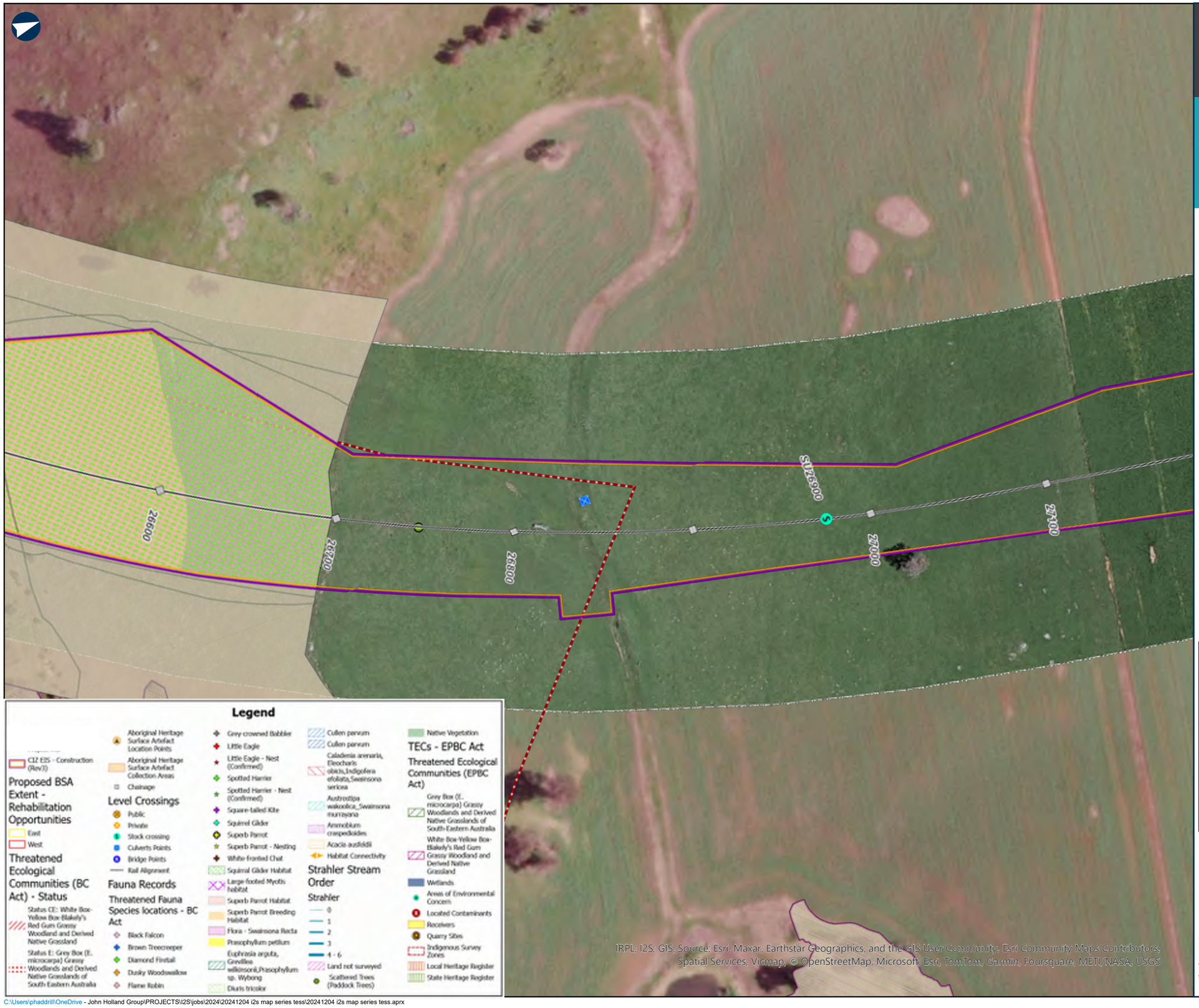
Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 45 OF 75



Legend

- CIZ EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
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- Aboriginal Heritage Surface Artefact Location Points
- Aboriginal Heritage Surface Artefact Collection Areas
- Chainage

Level Crossings
- Public
- Private
- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

Threatened Fauna Species locations - BC Act
- Black Falcon
- Brown Treecreeper
- Diamond Firetail
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- Flame Robin
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- Little Eagle
- Little Eagle - Nest (Confirmed)
- Spotted Harrier
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- Square-tailed Kite
- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White fronted Chat
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- Large footed Myotis habitat
- Superb Parrot Habitat
- Superb Parrot Breeding Habitat
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- Prasophyllum petilum
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- Diuris tricolor
- Cullen pervum
- Cullen pervum
- Caladenia arenaria, Eleocharis obicis,Indigofera efolata,Swainsona sericea
- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

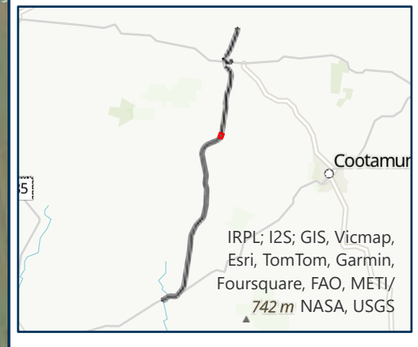
Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)
- Native Vegetation

TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
- Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Wetlands
- Areas of Environmental Concern
- Located Contaminants
- Receivers
- Quarry Sites
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

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Notes: I2S Low Impact Works



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Author: JH GIS (PH)
Approver: ###

Paper: A3
Scale: 1:2,000
Rev: A

Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 46 OF 75

27200 27300 27400 27500 27600 27700

Legend

- C1Z E2S - Construction (Rev1)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
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- Aboriginal Heritage Surface Artefact Location Points
- Aboriginal Heritage Surface Artefact Collection Areas
- Chainage

Level Crossings
- Public
- Private
- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

Threatened Fauna Species locations - BC Act
- Black Falcon
- Brown Treecreeper
- Diamond Firetail
- Dusky Woodswallow
- Flame Robin
- Grey-crowned Babbler
- Little Eagle
- Little Eagle - Nest (Confirmed)
- Spotted Harrier
- Spotted Harrier - Nest (Confirmed)
- Square-tailed Kite
- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White-fronted Chat
- Squirrel Glider Habitat
- Large-footed Myotis habitat
- Superb Parrot Habitat
- Superb Parrot Breeding Habitat
- Flora - Swainsona Recta
- Prasophyllum petilum
- Euphrasia arguta, Grevillea wilkinsonii,Prasophyllum sp. Wybong
- Diuris tricolor
- Cullen pervum
- Cullen pervum
- Caladenia arenaria, Eleocharis obicis,Indigofera efoliata,Swainsona sericea
- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)
- Native Vegetation

TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
- Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Wetlands
- Areas of Environmental Concern
- Located Contaminants
- Receivers
- Quarry Sites
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

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Notes: I2S Low Impact Works



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Date: 4/12/2024
Author: JH GIS (PH)
Approver: ###

Paper: A3
Scale: 1:2,000
Rev: A

Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 47 OF 75

Old Cootamundra Road

Dudauman Road

Old Cootamundra Road

27900

27900

28000

28100

28200

28300

Legend

- C12 E2S - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
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- Aboriginal Heritage Surface Artefact Location Points
- Aboriginal Heritage Surface Artefact Collection Areas
- Chainage

Level Crossings
- Public
- Private
- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

Threatened Fauna Species locations - BC Act
- Black Falcon
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- Dusky Woodswallow
- Flame Robin
- Grey crowned Babbler
- Little Eagle
- Little Eagle - Nest (Confirmed)
- Spotted Harrier
- Spotted Harrier - Nest (Confirmed)
- Square-tailed Kite
- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White Fronted Chat
- Squirrel Glider Habitat
- Large-footed Myotis habitat
- Superb Parrot Habitat
- Superb Parrot Breeding Habitat
- Flora - Swainsona Recta
- Prasophyllum petilum
- Euphrasia arguta, Grevillea wilkinsonii,Prasophyllum sp. Wybong
- Diuris tricolor
- Cullen parvum
- Cullen parvum
- Caladenia arenaria, Eleocharis obicis,Indigofera efolata,Swainsona sericea
- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

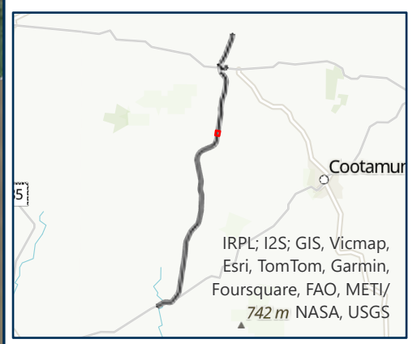
Strahler
- 0
- 1
- 2
- 3
- 4 - 6
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- Native Vegetation

TECs - EPBC Act

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- Receivers
- Quarry SIbs
- Indigenous Survey Zones
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Rev: A

Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 48 OF 75

28400 28500 28600 28700 28800 28900

Dudauman Road Dudauman Road Dudauman Road Dudauman Road

Legend

CIZ EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
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- Aboriginal Heritage Surface Artefact Location Points
- Aboriginal Heritage Surface Artefact Collection Areas
- Chainage

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- Public
- Private
- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

Threatened Fauna Species locations - BC Act
- Black Falcon
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- Diamond Firetail
- Dusky Woodswallow
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- Grey crowned Babbler
- Little Eagle
- Little Eagle - Nest (Confirmed)
- Spotted Harrier
- Spotted Harrier - Nest (Confirmed)
- Square-tailed Kite
- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White Fronted Chat
- Squirrel Glider Habitat
- Large footed Myotis habitat
- Superb Parrot Habitat
- Superb Parrot Breeding Habitat
- Flora - Swainsona Recta
- Prasophyllum petilum
- Euphrasia arguta, Grevillea wilkinsonii,Prasophyllum sp. Wybong
- Diuris tricolor
- Cullen pervum
- Cullen pervum
- Caladenia arenaria, Eleocharis obicis,Indigofera efolata,Swainsona serlona
- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

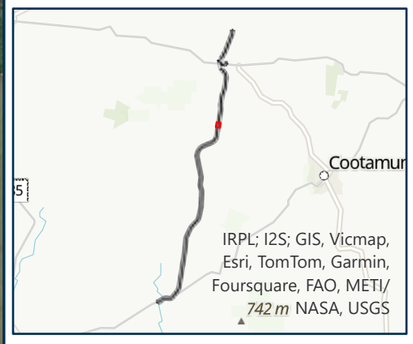
Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)
- Native Vegetation

TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
- Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia
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- Located Contaminants
- Receivers
- Quarry Sites
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

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INLAND RAIL

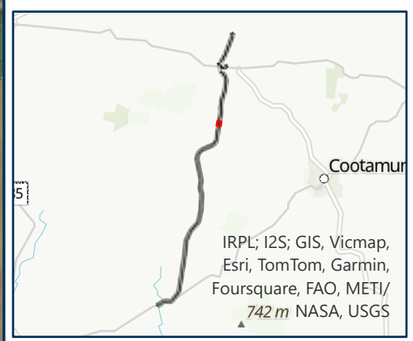
LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 49 OF 75



Notes: I2S Low Impact Works



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Rev: A

Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 50 OF 75



Notes: I2S Low Impact Works



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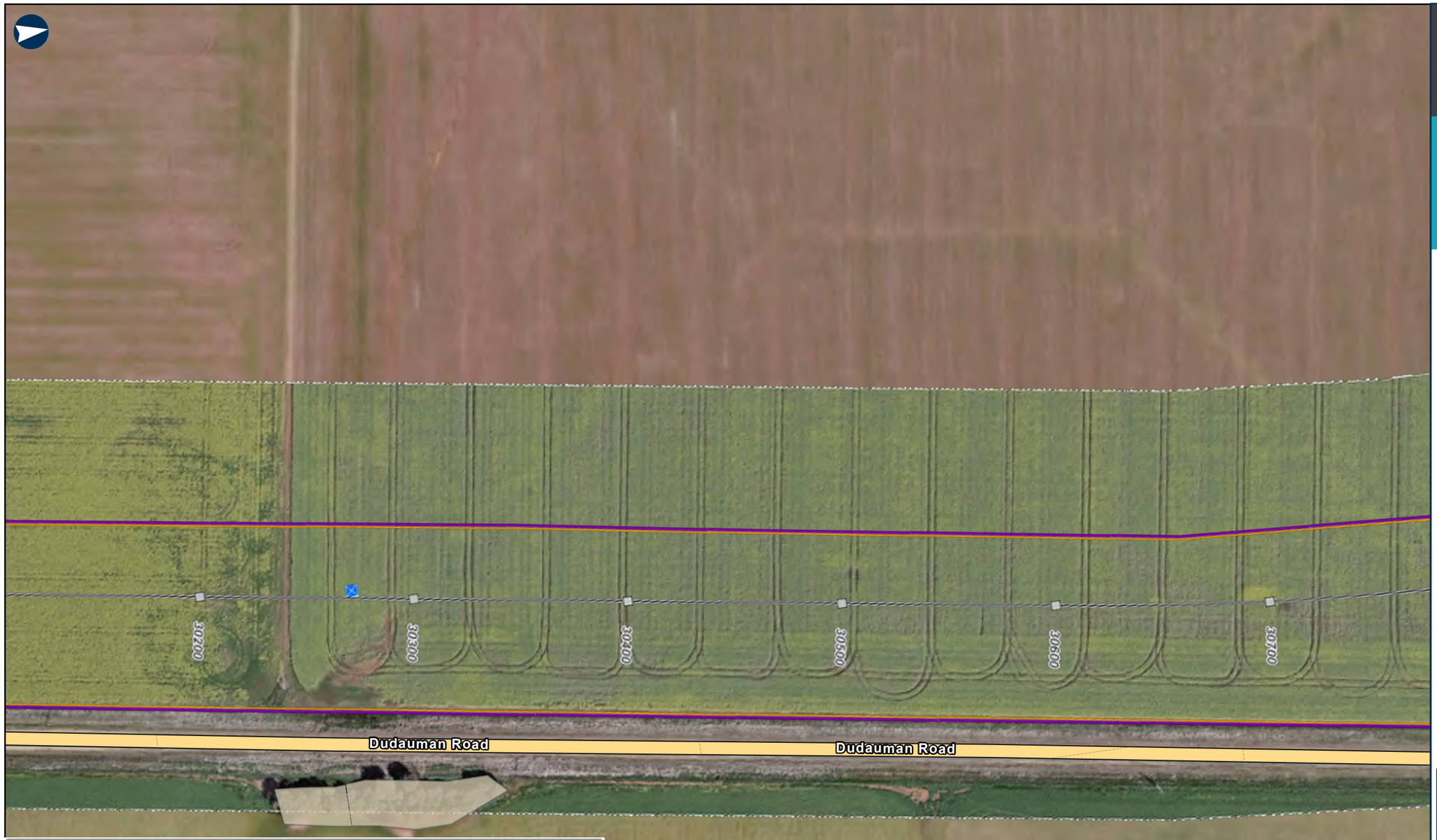
Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 51 OF 75



Legend

CIZ EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
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Aboriginal Heritage Surface Artefact Location Points

Aboriginal Heritage Surface Artefact Collection Areas

Chainage

Level Crossings
- Public
- Private
- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

Threatened Fauna Species locations - BC Act
- Black Falcon
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- Flame Robin
- Grey crowned Babbler
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- Prasophyllum petilum
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- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

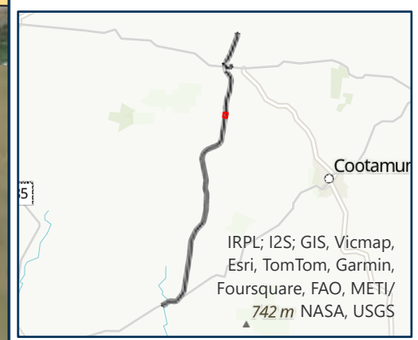
Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)
- Native Vegetation

TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
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- Located Contaminants
- Receivers
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- Indigenous Survey Zones
- Local Heritage Register
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Author: JH GIS (PH) Scale: 1:2,000
Approver: ### Rev: A

Data Sources: IRPL, JH

INLAND RAIL

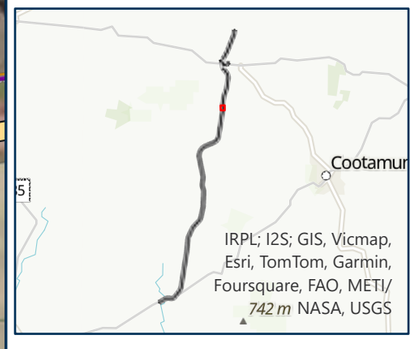
LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 52 OF 75



Notes: I2S Low Impact Works



Coordinate System: GDA2020 MGA Zone 55

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Date: 4/12/2024
Author: JH GIS (PH)
Approver: ###

Paper: A3
Scale: 1:2,000
Rev: A

Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 53 OF 75



Legend

CIZ EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Status E: Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia

- Aboriginal Heritage Surface Artefact Location Points
- Aboriginal Heritage Surface Artefact Collection Areas
- Chainage

Level Crossings
- Public
- Private
- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

Threatened Fauna Species locations - BC Act
- Black Falcon
- Brown Treecreeper
- Diamond Firetail
- Dusky Woodswallow
- Flame Robin
- Grey-crowned Babbler
- Little Eagle
- Little Eagle - Nest (Confirmed)
- Spotted Harrier
- Spotted Harrier - Nest (Confirmed)
- Square-tailed Kite
- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White Fronted Chat
- Squirrel Glider Habitat
- Large footed Myotis habitat
- Superb Parrot Habitat
- Superb Parrot Breeding Habitat
- Flora - Swainsona Recta
- Prasophyllum petilum
- Euphrasia arguta, Gevillea wilkinsonii,Prasophyllum sp. Wybong
- Diuris tricolor
- Cullen pervum
- Cullen pervum
- Caladenia arenaria, Eleocharis obicis,Indigofera efolata,Swainsona sericea
- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

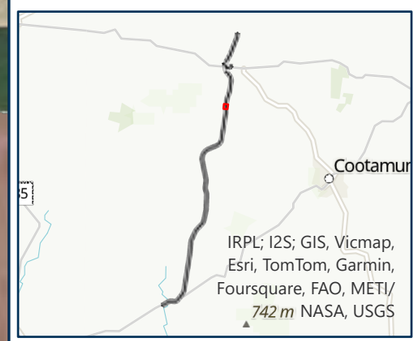
Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)
- Native Vegetation

TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
- Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Wetlands
- Areas of Environmental Concern
- Located Contaminants
- Receivers
- Quarry Sites
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

IRPL; I2S; GIS, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community, Esri Community Maps Contributors, Spatial Services, Vicmap, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, Foursquare, METI/NASA, USGS

Notes: I2S Low Impact Works



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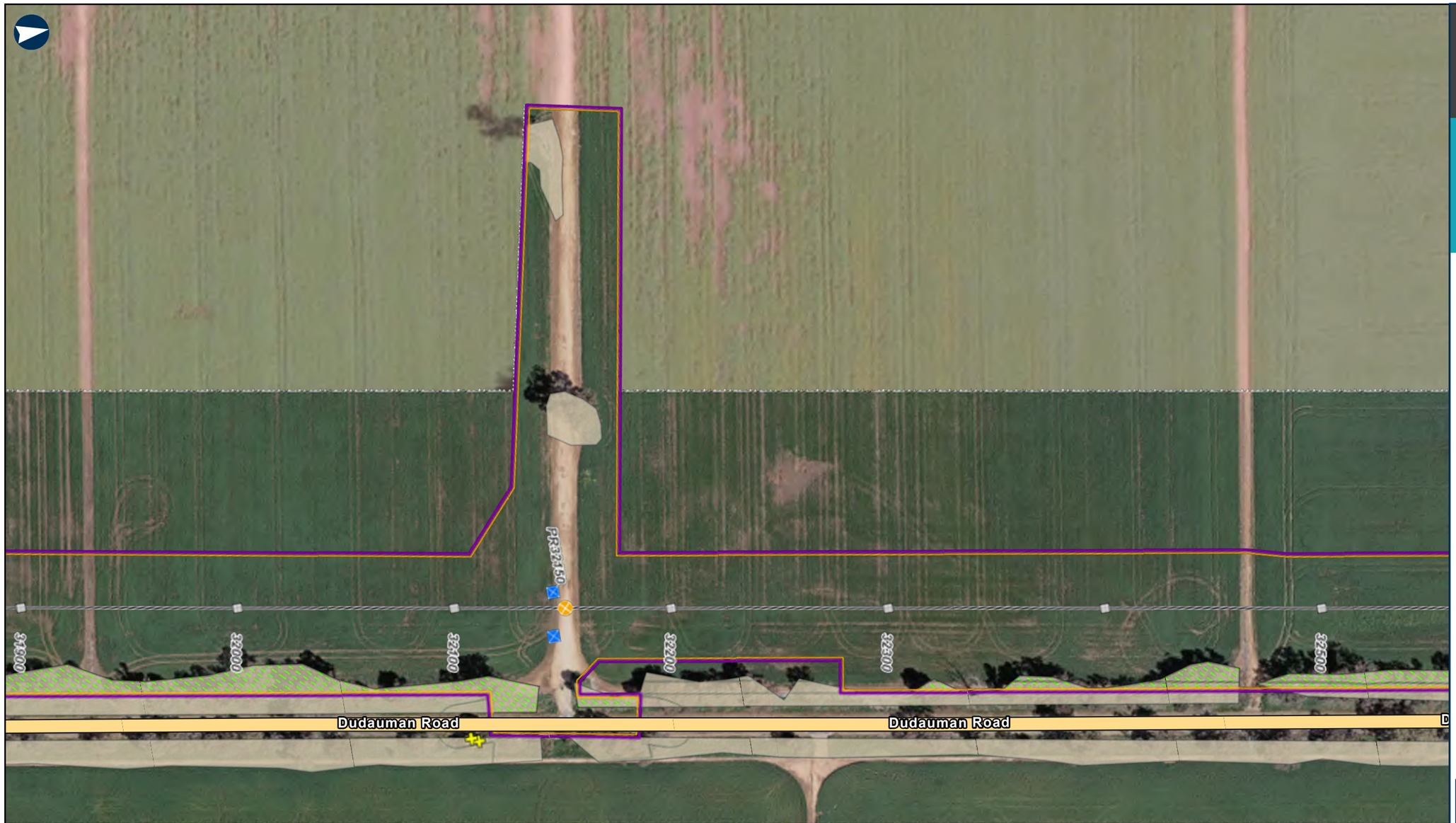
Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 54 OF 75



Legend

C1Z EIS - Construction (Rev1)

Proposed BSA Extent - Rehabilitation Opportunities

- East
- West

Threatened Ecological Communities (BC Act) - Status

- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
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- Aboriginal Heritage Surface Artefact Location Points
- Aboriginal Heritage Surface Artefact Collection Areas
- Chainage

Level Crossings

- Public
- Private
- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

Threatened Fauna Species locations - BC Act

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- Flame Robin
- Grey crowned Babbler
- Little Eagle
- Little Eagle - Nest (Confirmed)
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- Spotted Harrier - Nest (Confirmed)
- Square-tailed Kite
- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White fronted Chat

- Squirrel Glider Habitat
- Large footed Myotis habitat
- Superb Parrot Habitat
- Superb Parrot Breeding Habitat
- Flora - Swainsona Recta
- Prasophyllum petilum
- Euphrasia arguta, Grevillea wilkinsonii,Prasophyllum sp. Wybong
- Diuris tricolor

- Cullen pervum
- Cullen pervum
- Caladenia arenaria, Eleocharis obicis,Indigofera efoliata,Swainsona sericea
- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

Strahler

- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)

- Native Vegetation

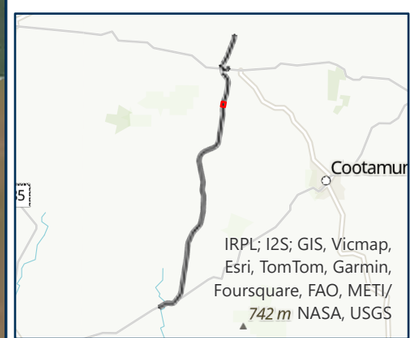
TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)

- Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Wetlands
- Areas of Environmental Concern
- Located Contaminants
- Receivers
- Quarry Sites
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

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Notes: I2S Low Impact Works



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Approver: ### Rev: A

Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 55 OF 75



Legend

- C1Z E2S - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status C1: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Status E: Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia
- Aboriginal Heritage Surface Artefact Location Points
- Aboriginal Heritage Surface Artefact Collection Areas
- Chainage

Level Crossings
- Public
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- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

Threatened Fauna Species locations - BC Act
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- Grey crowned Babbler
- Little Eagle
- Little Eagle - Nest (Confirmed)
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- Spotted Harrier - Nest (Confirmed)
- Square-tailed Kite
- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White Fronted Chat
- Squirrel Glider Habitat
- Large footed Myotis habitat
- Superb Parrot Habitat
- Superb Parrot Breeding Habitat
- Flora - Swainsona Recta
- Prasophyllum petilum
- Euphrasia arguta, Grevillea wilkinsonii,Prasophyllum sp. Wybong
- Diuris tricolor
- Cullen parvum
- Cullen parvum
- Caladenia arenaria, Eleocharis obicis,Indigofera efolata,Swainsona sericea
- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

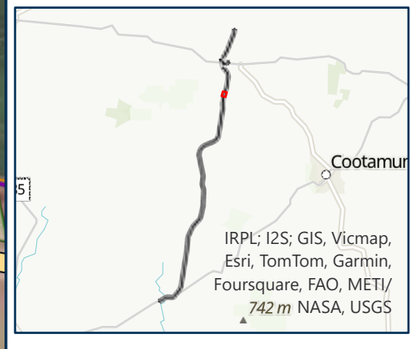
Strahler
- 0
- 1
- 2
- 3
- 4 - 6
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- Scattered Trees (Paddock Trees)
- Native Vegetation

TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
- Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South-Eastern Australia
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- Wetlands
- Areas of Environmental Concern
- Located Contaminants
- Receivers
- Quarry Sites
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

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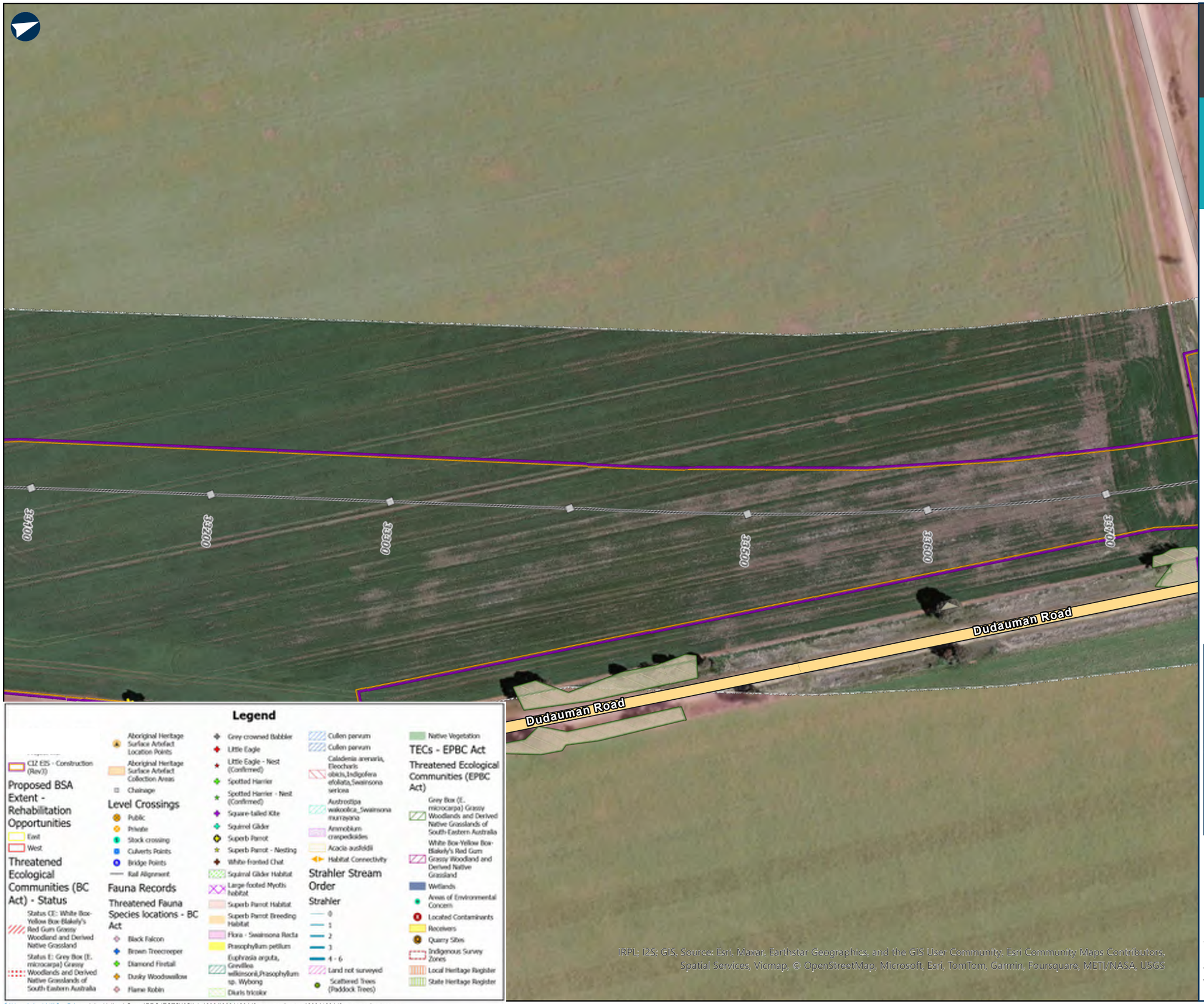
Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 56 OF 75



Legend

C1Z EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
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- Aboriginal Heritage Surface Artefact Location Points
- Aboriginal Heritage Surface Artefact Collection Areas
- Chainage

Level Crossings
- Public
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- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

Threatened Fauna Species locations - BC Act
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- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White fronted Chat
- Squirrel Glider Habitat
- Large footed Myotis habitat
- Superb Parrot Habitat
- Superb Parrot Breeding Habitat

Flora - Swainsona Recta
- Prasophyllum petilum
- Euphrasia arguta, Grevillea wilkinsonii,Prasophyllum sp. Wybong
- Diuris tricolor
- Cullen pervum
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- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)

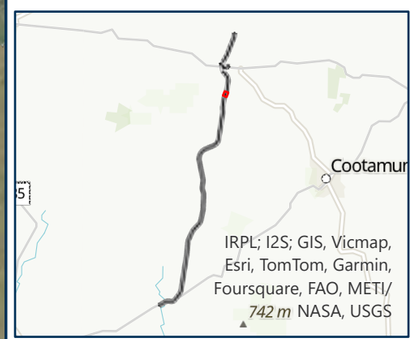
- Native Vegetation

TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
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- Located Contaminants
- Receivers
- Quarry Sites
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

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Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 57 OF 75

Corbys Lane

PU33750

Dudauman Road

Dudauman Road

Dudauman Road

Legend

CIZ EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities

- East
- West

Threatened Ecological Communities (BC Act) - Status

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Aboriginal Heritage Surface Artefact Location Points

Aboriginal Heritage Surface Artefact Collection Areas

Chainage

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Fauna Records

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- Square-tailed Kite
- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White fronted Chat
- Squirrel Glider Habitat
- Large footed Myotis habitat
- Superb Parrot Habitat
- Superb Parrot Breeding Habitat
- Flora - Swainsona Recta
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- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

Strahler

- 0
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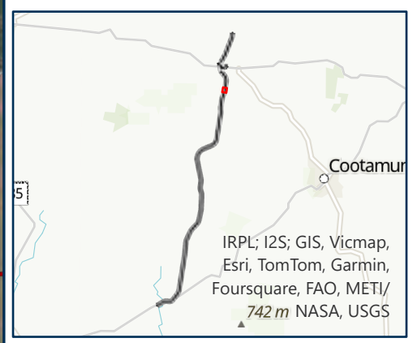
TECs - EPBC Act

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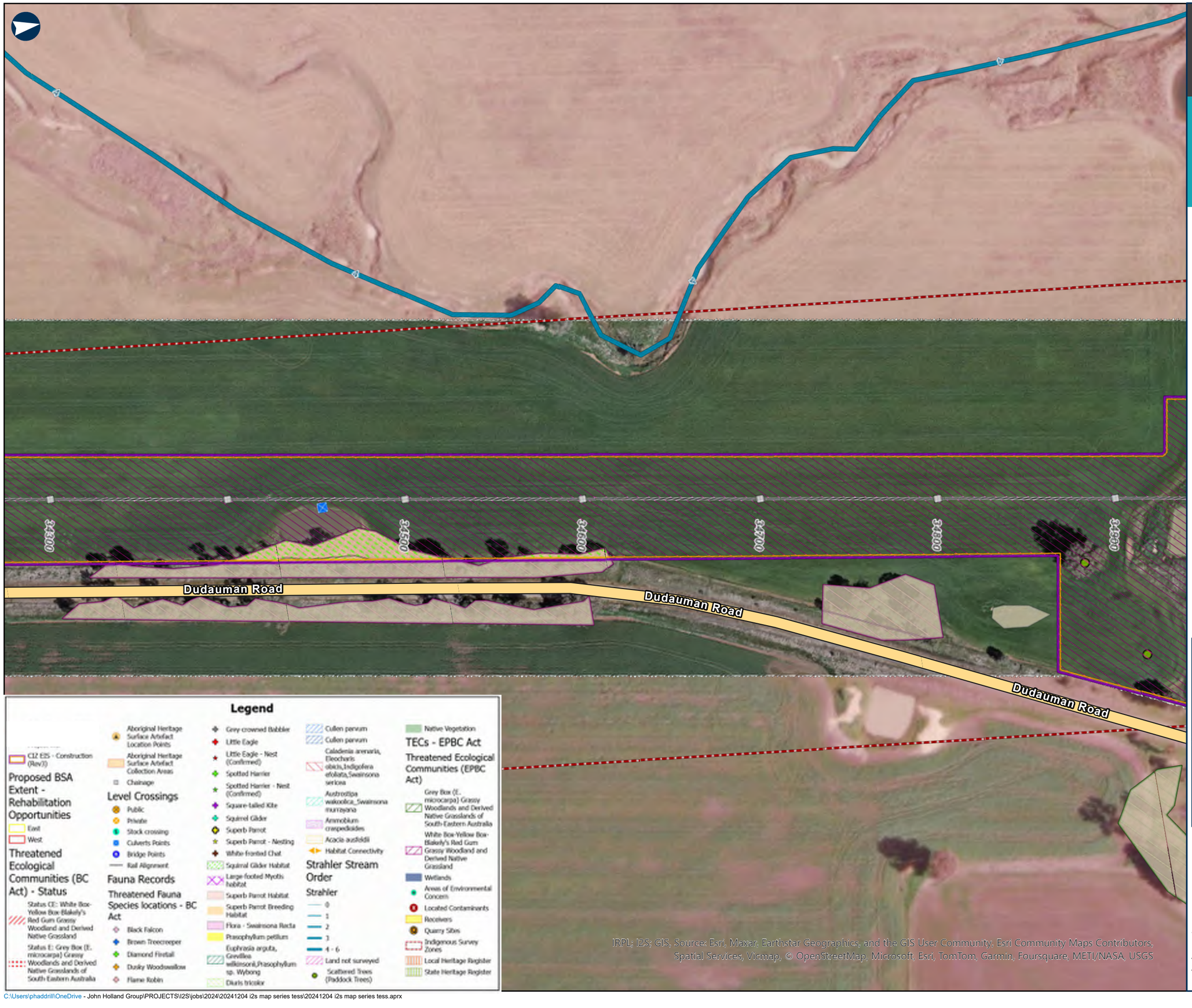
Data Sources: IRPL, JH

INLAND RAIL

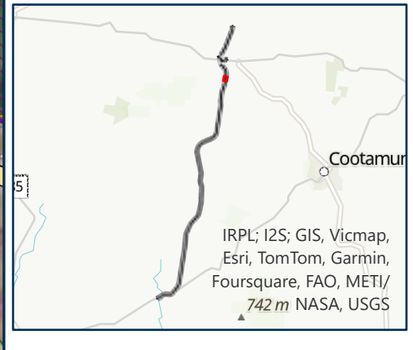
LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 58 OF 75



Notes: I2S Low Impact Works



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Rev: A

Data Sources: IRPL, JH

Legend

C1Z EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
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- Aboriginal Heritage Surface Artefact Location Points
- Aboriginal Heritage Surface Artefact Collection Areas
- Chainage

Level Crossings
- Public
- Private
- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

Threatened Fauna Species locations - BC Act
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- Grey-crowned Babbler
- Little Eagle
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- Spotted Harrier - Nest (Confirmed)
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- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White-fronted Chat
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- Large-footed Myotis habitat
- Superb Parrot Habitat
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- Prasophyllum petilum
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- Diuris tricolor
- Cullen parvum
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- Caladenia arenaria, Eleocharis obicis,Indigofera efoliata,Swainsona sericea
- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)

- Native Vegetation

TECs - EPBC Act

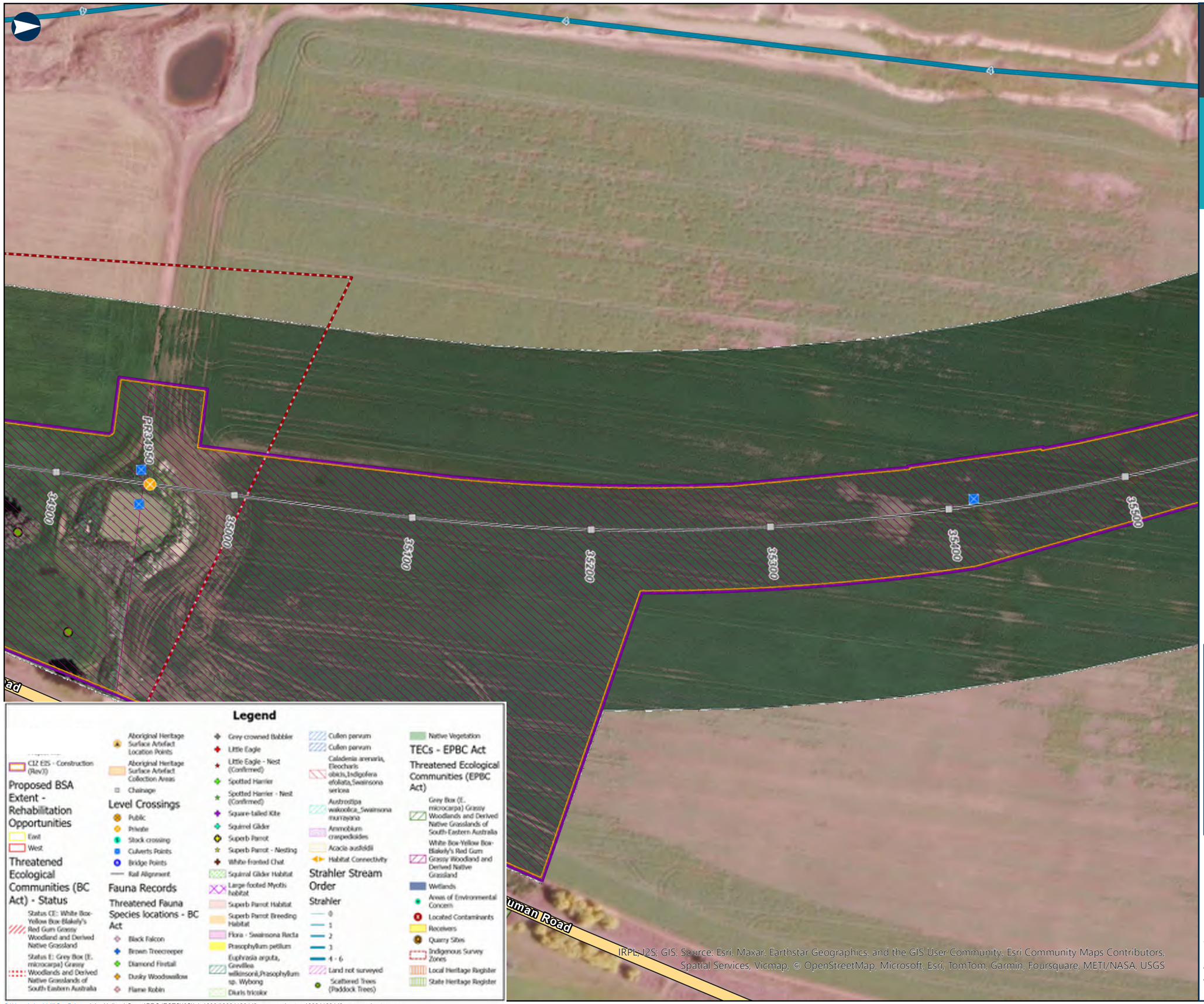
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- Located Contaminants
- Receivers
- Quarry Sites
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 59 OF 75



Legend

CIZ EIS - Construction (Rev1)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
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Aboriginal Heritage Surface Artefact Collection Areas
Chainage

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- Habitat Connectivity

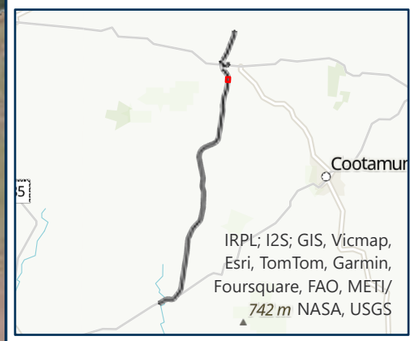
Strahler Stream Order

Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)
- Native Vegetation

TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
- Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South-Eastern Australia
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Wetlands
- Areas of Environmental Concern
- Located Contaminants
- Receivers
- Quarry Sites
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

Notes: I2S Low Impact Works



Coordinate System: GDA2020 MGA Zone 55

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Date: 4/12/2024
Author: JH GIS (PH)
Approver: ###

Paper: A3
Scale: 1:2,000
Rev: A

Data Sources: IRPL, JH

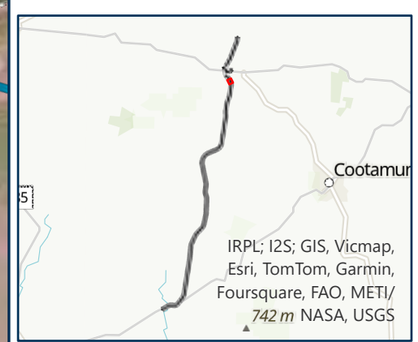
INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 60 OF 75

Notes: I2S Low Impact Works



Legend

C1Z E2S - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Status E: Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia

- Aboriginal Heritage Surface Artefact Location Points
- Aboriginal Heritage Surface Artefact Collection Areas
- Chainage

Level Crossings
- Public
- Private
- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

Threatened Fauna Species locations - BC Act
- Black Falcon
- Brown Treecreeper
- Diamond Firetail
- Dusky Woodswallow
- Flame Robin
- Grey crowned Babbler
- Little Eagle
- Little Eagle - Nest (Confirmed)
- Spotted Harrier
- Spotted Harrier - Nest (Confirmed)
- Square-tailed Kite
- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White fronted Chat
- Squirrel Glider Habitat
- Large footed Myotis habitat
- Superb Parrot Habitat
- Superb Parrot Breeding Habitat
- Flora - Swainsona Recta
- Prasophyllum petilum
- Euphrasia arguta, Grevillea wilkinsonii,Prasophyllum sp. Wybong
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- Cullen pervum
- Cullen pervum
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- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)
- Native Vegetation

TECs - EPBC Act

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IRPL; I2S; GIS. Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community, Esri Community Maps Contributors, Spatial Services, Vicmap, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, Foursquare, METI/NASA, USGS

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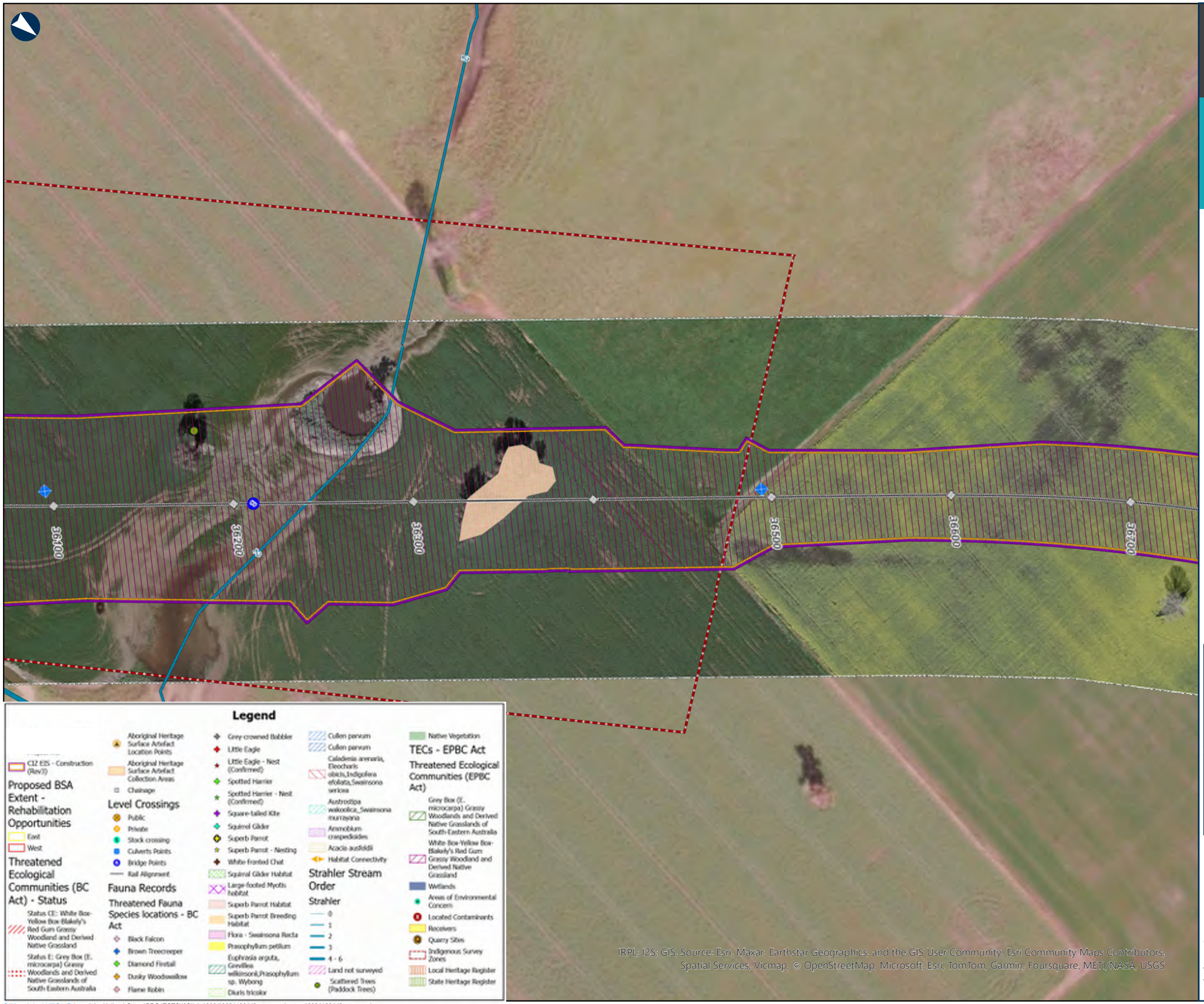
Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 61 OF 75



Legend

CIZ EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
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Aboriginal Heritage Surface Artefact Location Points
Aboriginal Heritage Surface Artefact Collection Areas
Chainage

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- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White-fronted Chat
- Squirrel Glider Habitat
- Large-footed Myotis habitat
- Superb Parrot Habitat
- Superb Parrot Breeding Habitat
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- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

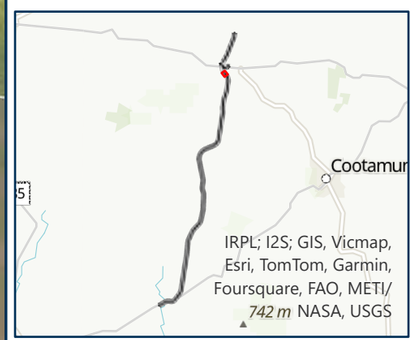
Strahler
- 0
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- Native Vegetation

TECs - EPBC Act

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Notes: I2S Low Impact Works



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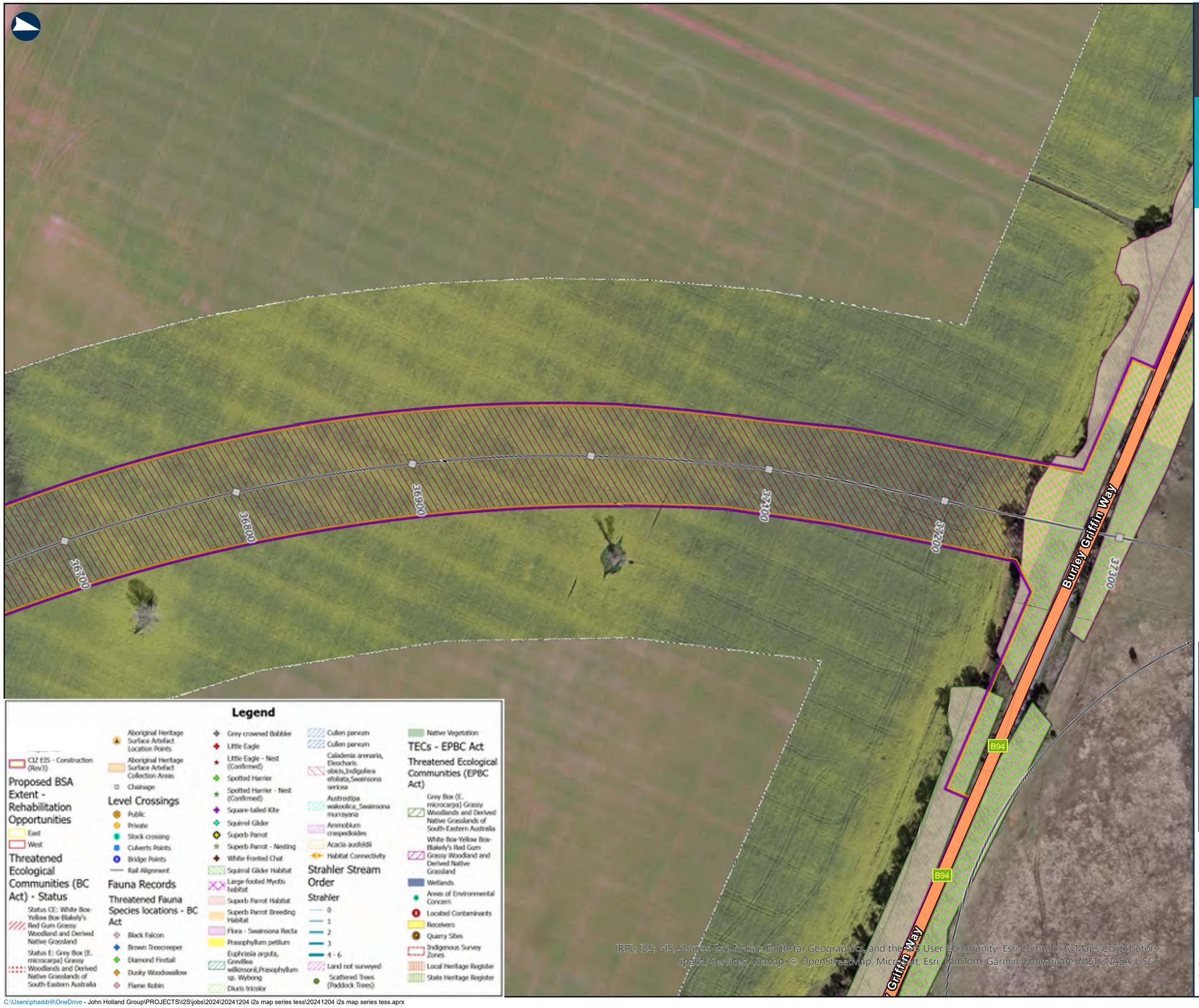
Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 62 OF 75



Legend

CIZ EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
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- West

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- Superb Parrot
- Superb Parrot - Nesting
- White fronted Chat

Squirrel Glider Habitat

Large footed Myotis habitat

Superb Parrot Habitat

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Flora - Swainsona Recta

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Cullen pervum

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Austrostipa wakoolica_Swainsona murrayana

Ammobium craspedioides

Acacia ausfeldii

Habitat Connectivity

Strahler Stream Order

Strahler
- 0
- 1
- 2
- 3
- 4 - 6

Land not surveyed

Scattered Trees (Paddock Trees)

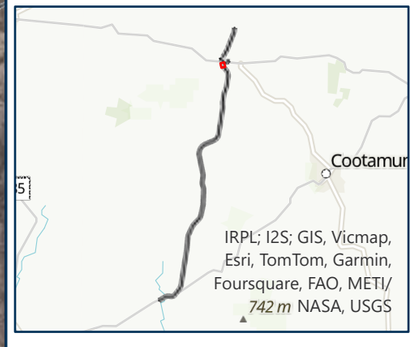
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Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 63 OF 75

Burley Griffin Way

B94

Stockinbingal

37200 37300 37400 37500 37600 37700 37800 37900

Legend

- CIZ EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
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- Superb Parrot - Nesting
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Strahler Stream Order

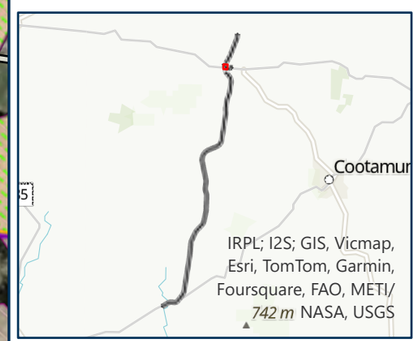
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INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 64 OF 75

37900
38000
38100
38200
38300
38400
38500

Legend

- C1Z EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
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- Habitat Connectivity

Strahler Stream Order

Strahler
- 0
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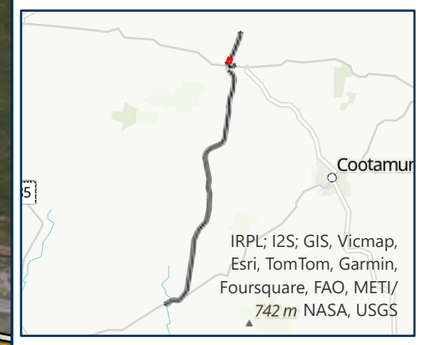
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TECs - EPBC Act

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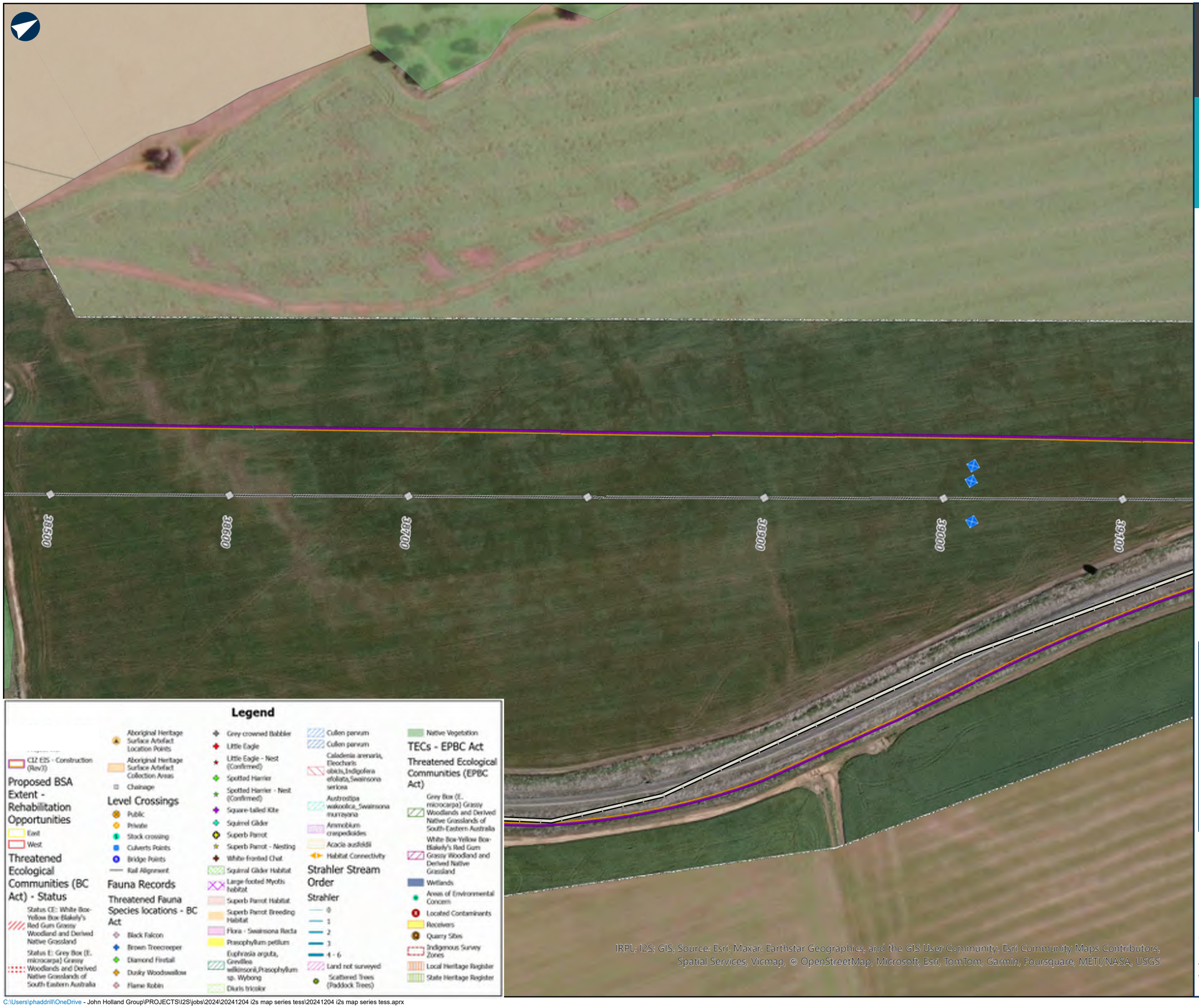
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INLAND RAIL

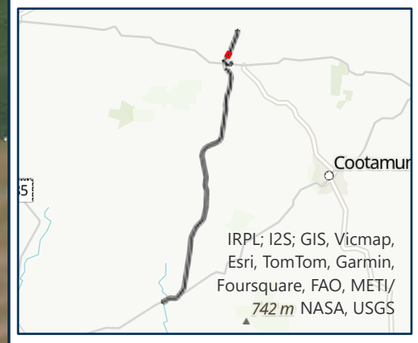
LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 65 OF 75



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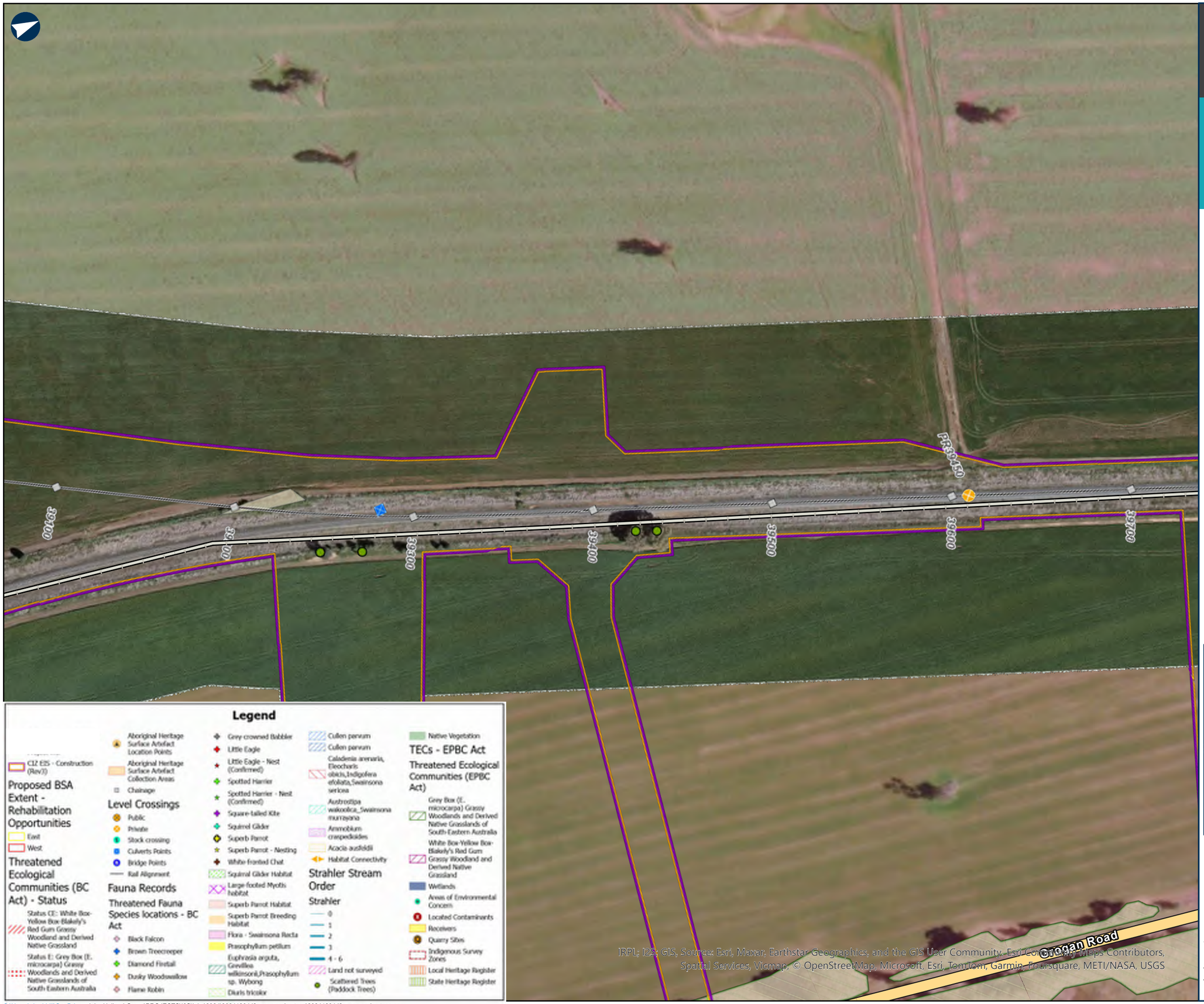
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INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 66 OF 75



Legend

- C1Z EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
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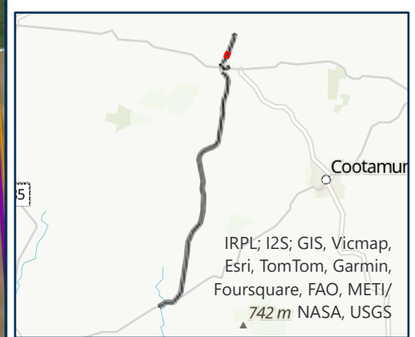
Strahler Stream Order

Strahler
- 0
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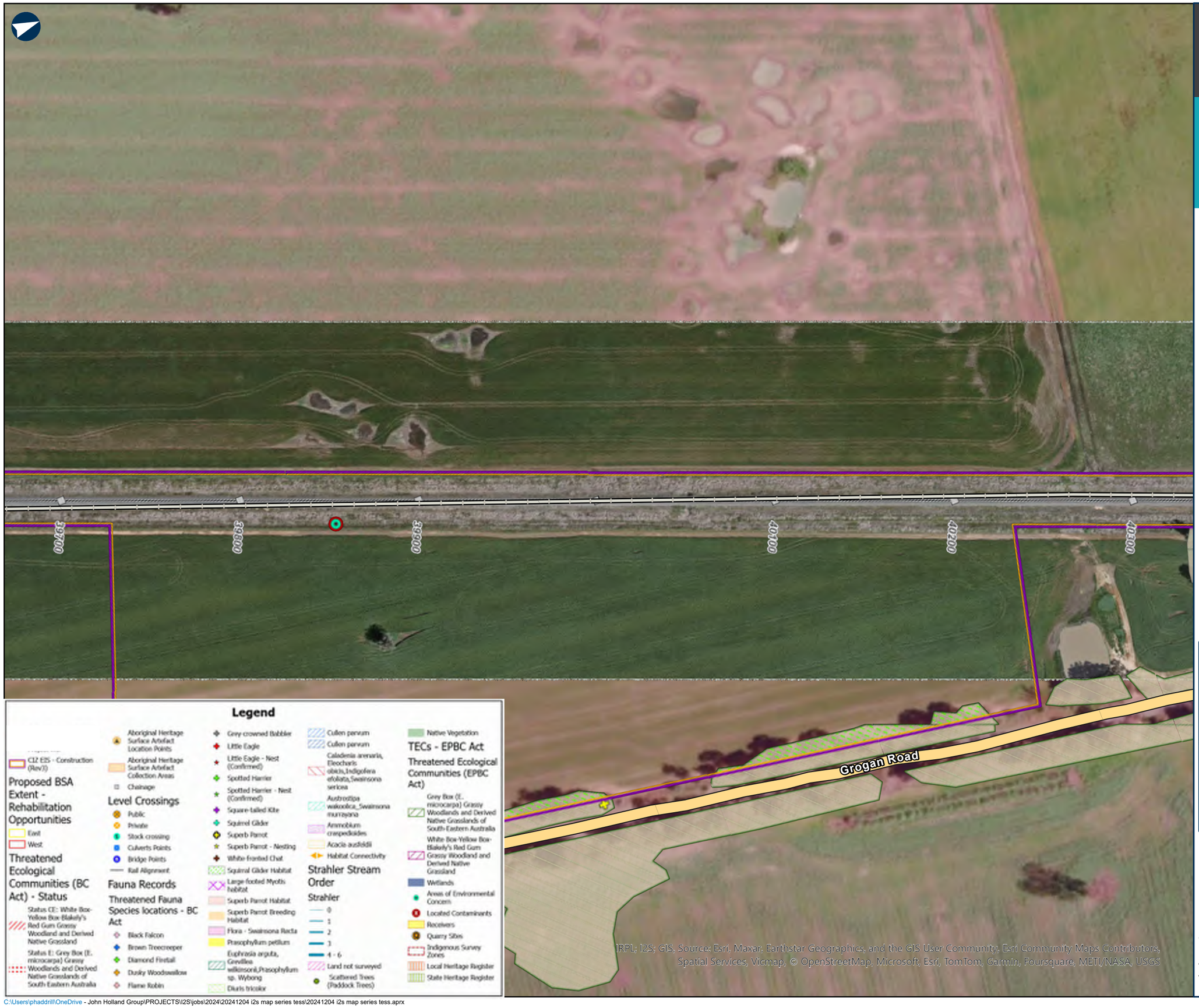
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LIW Environmental Constraint Mapping

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MAP 67 OF 75



Legend

CIZ EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Status E: Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia

Aboriginal Heritage Surface Artefact Location Points
Aboriginal Heritage Surface Artefact Collection Areas
Chainage

Level Crossings
- Public
- Private
- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

Threatened Fauna Species locations - BC Act
- Black Falcon
- Brown Treecreeper
- Diamond Firetail
- Dusky Woodswallow
- Flame Robin
- Grey crowned Babbler
- Little Eagle
- Little Eagle - Nest (Confirmed)
- Spotted Harrier
- Spotted Harrier - Nest (Confirmed)
- Square-tailed Kite
- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White fronted Chat
- Squirrel Glider Habitat
- Large footed Myotis habitat
- Superb Parrot Habitat
- Superb Parrot Breeding Habitat
- Flora - Swainsona Recta
- Prasophyllum petilum
- Euphrasia arguta, Grevillea wilkinsonii,Prasophyllum sp. Wybong
- Diuris tricolor
- Cullen parvum
- Cullen parvum
- Calademia arenaria, Eleocharis obicis,Indigofera efolata,Swainsona sericea
- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

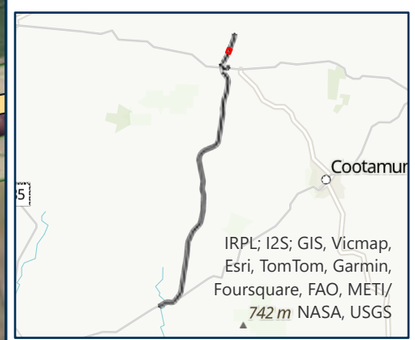
Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)

- Native Vegetation

TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
- Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Wetlands
- Areas of Environmental Concern
- Located Contaminants
- Receivers
- Quarry Sites
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

Notes: I2S Low Impact Works



Coordinate System: GDA2020 MGA Zone 55

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Date: 4/12/2024
Author: JH GIS (PH)
Approver: ###

Paper: A3
Scale: 1:2,000
Rev: A

Data Sources: IRPL, JH



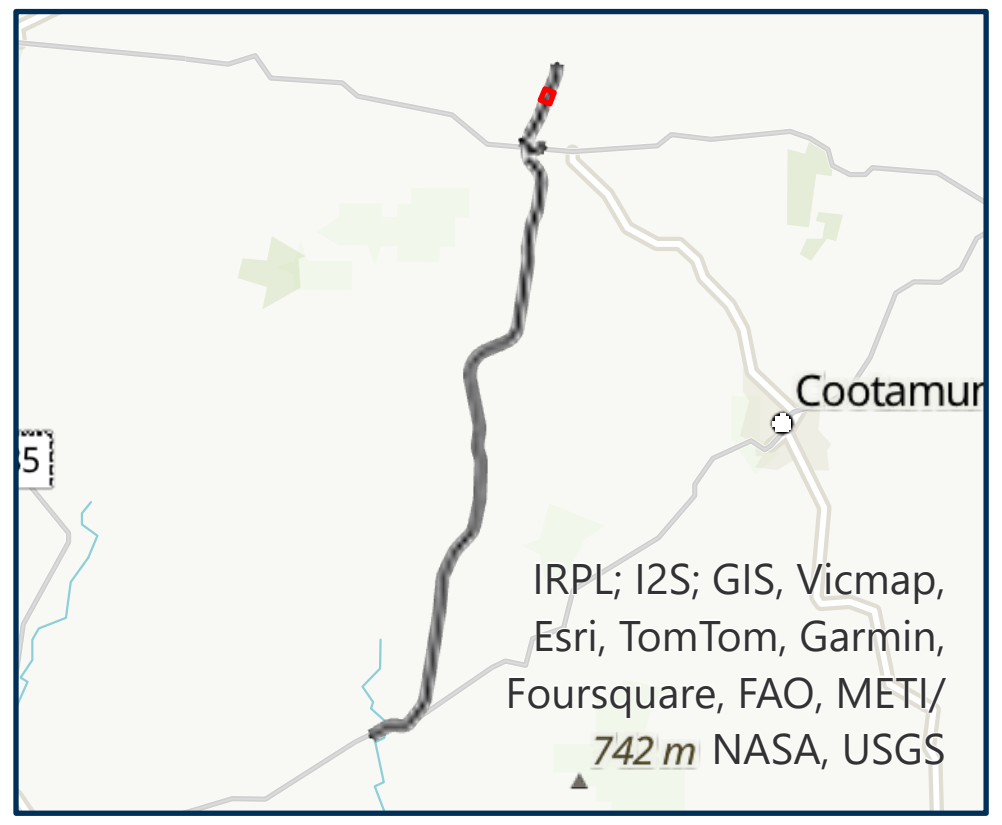
INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 68 OF 75

Notes: I2S Low Impact Works



Coordinate System: GDA2020 MGA Zone 55

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Approver: ### Rev: A

Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 69 OF 75

Grogan Road

Grogan Road

Grogan Road

41600

41000

41400

42200

43000

41000

41500

Legend

C1Z EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities

- Exit
- West

Threatened Ecological Communities (BC Act) - Status

- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Status E: Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia

- Aboriginal Heritage Surface Artefact Location Points
- Aboriginal Heritage Surface Artefact Collection Areas
- Chainage

Level Crossings

- Public
- Private
- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

Threatened Fauna Species locations - BC Act

- Black Falcon
- Brown Treecreeper
- Diamond Firetail
- Dusky Woodswallow
- Flame Robin
- Grey-crowned Babbler
- Little Eagle
- Little Eagle - Nest (Confirmed)
- Spotted Harrier
- Spotted Harrier - Nest (Confirmed)
- Square-tailed Kite
- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White-fronted Chat
- Squirrel Glider Habitat
- Large-footed Myotis habitat
- Superb Parrot Habitat
- Superb Parrot Breeding Habitat
- Flora - Swainsona Recta
- Prasophyllum petilum
- Euphrasia arguta, Grevillea wilkinsonii,Prasophyllum sp. Wybong
- Diuris tricolor
- Cullen pervum
- Cullen pervum
- Caladenia arenaria, Eleocharis obicis,Indigofera efolata,Swainsona sericea
- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

Strahler

- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)
- Native Vegetation

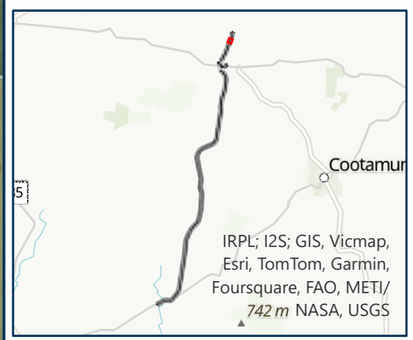
TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)

- Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Wetlands
- Areas of Environmental Concern
- Located Contaminants
- Receivers
- Quarry Sites
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

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Notes: I2S Low Impact Works



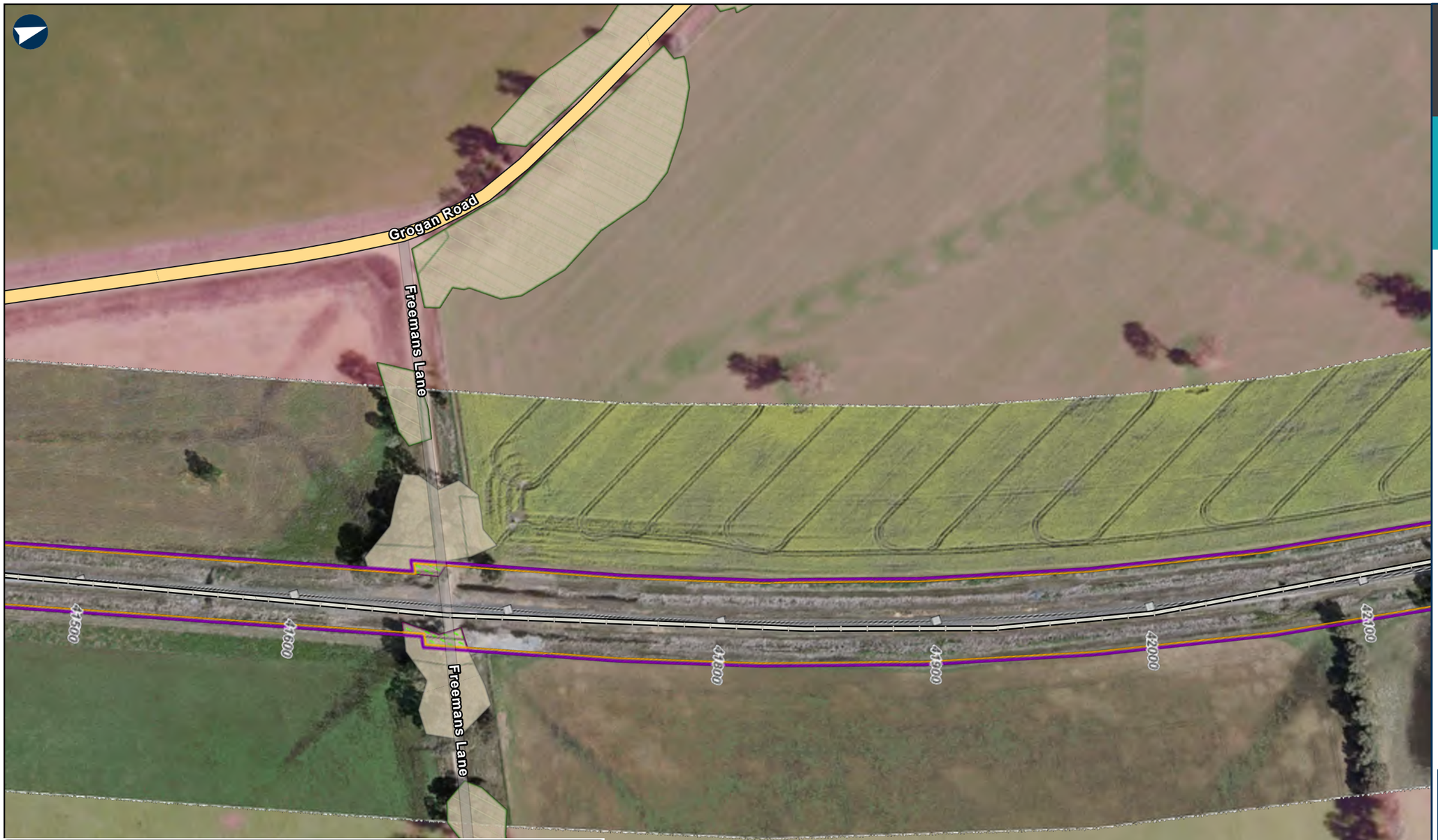
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Data Sources: IRPL, JH





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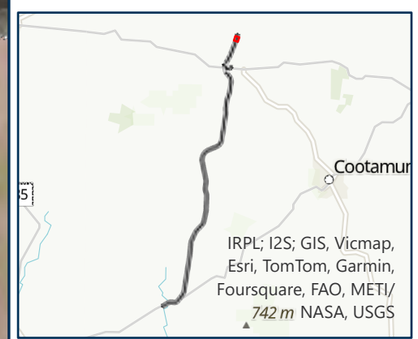
INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 70 OF 75

Notes: I2S Low Impact Works



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Data Sources: IRPL, JH

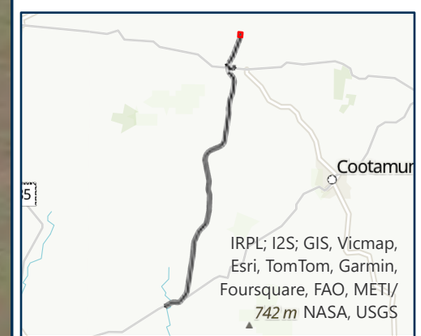
INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 71 OF 75

Notes: I2S Low Impact Works



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Approver: ### Rev: A

Data Sources: IRPL, JH

Aconex No.

Legend

- C1Z E2S - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Status E: Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia
- Aboriginal Heritage Surface Artefact Location Points
- Aboriginal Heritage Surface Artefact Collection Areas
- Chainage

Level Crossings
- Public
- Private
- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

Threatened Fauna Species locations - BC Act
- Black Falcon
- Brown Treecreeper
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- Dusky Woodswallow
- Flame Robin
- Grey crowned Babbler
- Little Eagle
- Little Eagle - Nest (Confirmed)
- Spotted Harrier
- Spotted Harrier - Nest (Confirmed)
- Square-tailed Kite
- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White fronted Chat
- Squirrel Glider Habitat
- Large footed Myotis habitat
- Superb Parrot Habitat
- Superb Parrot Breeding Habitat
- Flora - Swainsona Recta
- Prasophyllum petilum
- Euphrasia arguta, Grevillea wilkinsonii,Prasophyllum sp. Wybong
- Diuris tricolor
- Cullen pervum
- Cullen pervum
- Caladenia arenaria, Eleocharis obicis,Indigofera efolata,Swainsona sericea
- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)
- Native Vegetation

TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
- Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South-Eastern Australia
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Wetlands
- Areas of Environmental Concern
- Located Contaminants
- Receivers
- Quarry SBIs
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

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INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 72 OF 75

A41 Olympic Highway A41 A41 Olympic Highway A41

200 400

Legend

CIZ EIS - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
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- Aboriginal Heritage Surface Artefact Location Points
- Aboriginal Heritage Surface Artefact Collection Areas
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Level Crossings
- Public
- Private
- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

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- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White fronted Chat
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- Cullen pervum
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- Caladenia arenaria, Eleocharis obicis,Indigofera efolata,Swainsona sericea
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- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

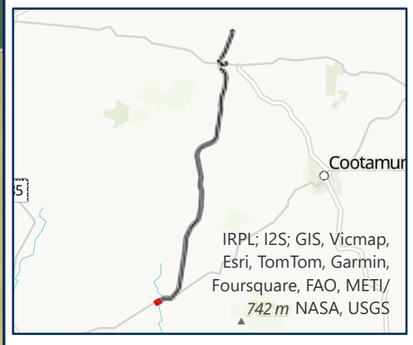
Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)
- Native Vegetation

TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
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- Areas of Environmental Concern
- Located Contaminants
- Receivers
- Quarry Sites
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

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Notes: I2S Low Impact Works



Coordinate System: GDA2020 MGA Zone 55

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Author: JH GIS (PH) Scale: 1:2,000
Approver: ### Rev: A

Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 73 OF 75

West Street
West Street
Wood
Hibernia Street
Hibernia Street
B94
B94
B94
B94
Burley Griffin Way
Burley Griffin Way
Burley Griffin Way
Temora Street
Troy Street
Cynthia Street

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Legend

C1Z E2S - Construction (Rev1)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
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- Aboriginal Heritage Surface Artefact Location Points
- Aboriginal Heritage Surface Artefact Collection Areas
- Chainage

Level Crossings
- Public
- Private
- Stock crossing
- Culverts Points
- Bridge Points
- Rail Alignment

Fauna Records

Threatened Fauna Species locations - BC Act
- Black Falcon
- Brown Treecreeper
- Diamond Firetail
- Dusky Woodswallow
- Flame Robin
- Grey-crowned Babbler
- Little Eagle
- Little Eagle - Nest (Confirmed)
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- Spotted Harrier - Nest (Confirmed)
- Square-tailed Kite
- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White-fronted Chat
- Squirrel Glider Habitat
- Large-footed Myotis habitat
- Superb Parrot Habitat
- Superb Parrot Breeding Habitat
- Flora - Swainsona Recta
- Prasophyllum petilum
- Euphrasia arguta, Grevillea wilkinsonii,Prasophyllum sp. Wybong
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- Acacia ausfeldii
- Habitat Connectivity

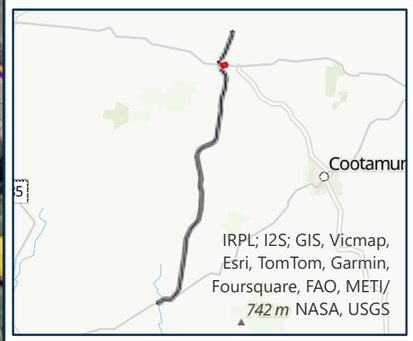
Strahler Stream Order

Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)
- Native Vegetation

TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
- Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Wetlands
- Areas of Environmental Concern
- Located Contaminants
- Receivers
- Quarry Sites
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

Notes: I2S Low Impact Works



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Paper: A3
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Rev: A

Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 74 OF 75

Wood Street
Wood Street
Grogan Road
udauman Street
Cynthia Street
Hibernia Street
Stockinbingal
Hibernia Street
Stockinbingal Newsagency Coach Stop
B94
Hibernia Street
Hibernia Street
B94
Hibernia Street
B94
eet
Troy Street
Troy Street
Dudauman Road
Geraldra Street
reet
Adams Street
Geraldra Street
Dudauman Ro
Cy

Legend

- C1Z E2S - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
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- Aboriginal Heritage Surface Artefact Location Points
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- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

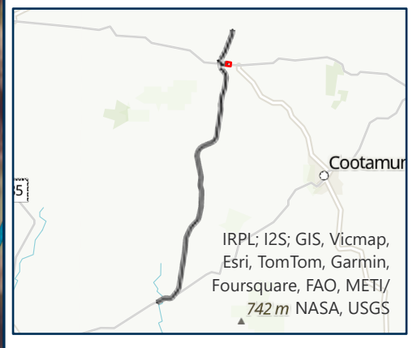
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TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
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- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
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- Areas of Environmental Concern
- Located Contaminants
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- Indigenous Survey Zones
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Data Sources: IRPL, JH

INLAND RAIL

LIW Environmental Constraint Mapping

Illabo to Stockinbingal

MAP 75 OF 75

37900

Legend

- C1Z E2S - Construction (Rev3)

Proposed BSA Extent - Rehabilitation Opportunities
- East
- West

Threatened Ecological Communities (BC Act) - Status
- Status CE: White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
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- Aboriginal Heritage Surface Artefact Location Points
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- Stock crossing
- Culverts Points
- Bridge Points
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Fauna Records

Threatened Fauna Species locations - BC Act
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- Little Eagle - Nest (Confirmed)
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- Spotted Harrier - Nest (Confirmed)
- Square-tailed Kite
- Squirrel Glider
- Superb Parrot
- Superb Parrot - Nesting
- White fronted Chat
- Squirrel Glider Habitat
- Large footed Myotis habitat
- Superb Parrot Habitat
- Superb Parrot Breeding Habitat
- Flora - Swainsona Recta
- Prasophyllum petilum
- Euphrasia arguta, Grevillea wilkinsonii,Prasophyllum sp. Wybong
- Diuris tricolor
- Cullen pervum
- Cullen pervum
- Caladenia arenaria, Eleocharis obicis,Indigofera efoliata,Swainsona sericea
- Austrostipa wakoolica_Swainsona murrayana
- Ammobium craspedioides
- Acacia ausfeldii
- Habitat Connectivity

Strahler Stream Order

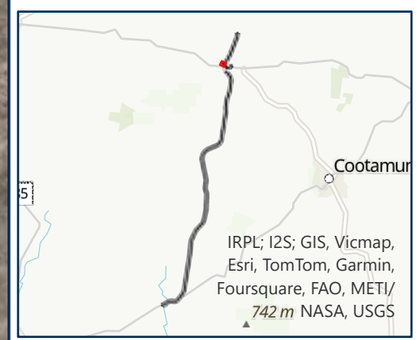
Strahler
- 0
- 1
- 2
- 3
- 4 - 6
- Land not surveyed
- Scattered Trees (Paddock Trees)
- Native Vegetation

TECs - EPBC Act

Threatened Ecological Communities (EPBC Act)
- Grey Box (E. microcarpa) Grassy Woodlands and Derived Native Grasslands of South Eastern Australia
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Wetlands
- Areas of Environmental Concern
- Located Contaminants
- Receivers
- Quarry Sites
- Indigenous Survey Zones
- Local Heritage Register
- State Heritage Register

IRPL; I2S; GIS, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community, Esri Community Maps Contributors, Spatial Services, Vicmap, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, Foursquare, METI/NASA, USGS

Notes: I2S Low Impact Works



Coordinate System: GDA2020 MGA Zone 55

This data is provided for information purposes only.
As this GIS plan has been prepared from material provided to IR by an external source, IR cannot and does not attest to its completeness, accuracy or suitability.
While every care is taken to ensure the accuracy of the data, IR makes no representation or warranty and assumes no duty of care or other responsibility as to the completeness, accuracy or suitability of the information contained in this GIS plan.
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Date: 4/12/2024 Paper: A3
Author: JH GIS (PH) Scale: 1:2,000
Approver: ### Rev: A

Data Sources: IRPL, JH

Appendix A6 - Environmental Incident Procedures

Appendix A Environmental Event Management Process

As per section 6.13, this process (Table 3 and Figure 2Figure 2: Environmental Event Management Process Map) sets out the approach to be used by the Contractor when managing Environmental Events. SAI360 training material will be provided to the Contractor in the form of help guides to assist with this process and use of SAI360.

Table 5: Environmental Event Management Process Steps

PROCESS STEP	STEP TITLE	TASK DESCRIPTION	TIMEFRAME	RESPONSIBLE ROLE
Step 1	Conduct initial response for identified Environmental Event	Whether identified by the Contractor Representative or the ARTC Representative or a third party (i.e. Authority, community member), the individual is to contact the appropriate Site supervisor and take reasonable and practicable steps to stop, reduce and / or prevent further impacts ***Note:*** *It is imperative that all ARTC representatives and Contractor, subcontractors and any other associated persons working on the Inland Rail Program do not put their own personal welfare or the welfare of others at risk and emergency services should be called if required.*	Immediately	Contractor Representative
Decision	Does the Environmental Event require Regulatory Notification?	Where the Environmental Event is an actual or potential non-compliance with any Laws (including any CoA), and / or does or is likely to meet the definition of material harm or serious environmental harm, the Contractor must notify ARTC verbally immediately **Yes:** Proceed to Step 2 **No:** Proceed to Step 4	Immediately notify after identification of Environmental Event	Contractor Representative
Step 2	Prepare/Complete Initial Regulatory Notification(s)	**Step 2a)** ▸ Notify any Authority and/or third-party as applicable and in accordance with, requirements. (ARTC will notify relevant Authorities in respect of ARTC Approvals) **Step 2b)** ▸ Prepare the regulatory notification template(s) as provided by ARTC and submit to ARTC for review via Aconex	Immediately notify after becoming aware of any Environmental Event Any further notification(s) / reports including requests for further information must be completed within the specified timeframes determined by ARTC, subject to compliance with applicable Laws	Contractor Representative

PROCESS STEP	STEP TITLE	TASK DESCRIPTION	TIMEFRAME	RESPONSIBLE ROLE
		▸ Contractor to consider / incorporate feedback into the Regulatory Notifications(s) / Reports / Information within specified timeframes determined by ARTC. *Step 2 and 3 continue until ARTC is satisfied with the Regulatory Notification(s) / Report / Information.* ***Note:** Further Regulatory Notification(s) / Reports may be required in addition to the initial Regulatory Notification, including requests for further information by Authorities(s). ARTC may direct the Contractor to prepare and provide ARTC with any additional notifications / reports / information via Aconex.*		
Step 3	ARTC Review / Submit Regulatory Notification **(Only for Approvals for which ARTC retains reporting responsibility under the Deed)**	▸ ARTC review Contractor's draft Regulatory Notification. ARTC may provide feedback (where relevant) via Aconex that is to be considered / incorporated into the Regulatory notification(s) / reports / information ▸ ARTC submit Regulatory Notification / Reports / Information to Authorities and/or any other third party (e.g. Environmental Representative) as required or as ARTC considers appropriate. *Where additional notification(s) / reports / information is required by the Regulator(s) ARTC will request this from the Contractor via Aconex as per Step 2*	As specified by ARTC, subject to compliance with applicable Laws	ARTC Representative
Step 4	Enter/Update Environmental Event Record within SAI360	▸ Enter/Update the Environmental Event Record within SAI360 including all relevant and supporting information / documentation in accordance with the SAI360 training material ▸ Refer to Decision(s) "Review if Environmental Event Triggers Step 2" and "Is an Investigation / Lessons Learnt required" and proceed as necessary ▸ Once ARTC is satisfied with the information provided within the Environmental Event Record proceed to Step 7. *Step 5 and 6 continue until ARTC is satisfied with the Environmental Event Record, incident report and any additional or supporting information*	Within 24 hours after becoming aware of any Environmental Event Subsequent updates within a timeframe agreed with ARTC or as directed by ARTC	Contractor Representative

PROCESS STEP	STEP TITLE	TASK DESCRIPTION	TIMEFRAME	RESPONSIBLE ROLE
		ARTC will provide the Contractor with licenses & training material for SAI360		
Step 5	ARTC Review	ARTC will review the Environmental Event Record within SAI360 and request any additional information / feedback it requires or believes is relevant to the Environmental Event Record via Aconex	Within 48 hours or longer period as stated by ARTC after initial entry into SAI360	ARTC Representative
Decision	Review if Environmental Event Triggers Step 2	Where additional information is identified (by either the Contractor or ARTC) the Contractor must review to determine if Step 2 is triggered. **Yes:** Return to Step 2 **No:** Continue as per Step 4 and 5	Immediately notify - If the event triggers Step 2.	Contractor Representative
Decision	Is an Investigation / Lessons Learnt Required?	Investigation / Lessons Learnt is dictated by event severity and/or at the direction of ARTC. **Yes**: Proceed to Step 6 **No:** Proceed to Step 7 *ARTC may direct the Contractor to complete an investigation / Lessons Learnt due to further information identified or additional factors present (i.e. reoccurrence of similar events, significant costs to the business, level of regulatory involvement, significant damage to ARTC reputation and / or significant public interest).*	Timeframe dictated by Environmental Event severity or within mutually agreed timeframe where the investigation is directed by ARTC.	Contractor Representative / ARTC Representative
Step 6	Complete Investigation/Lessons Learnt	▸ Contractor is to complete investigation/ Lessons Learnt including ARTC Representative as per ARTC direction ▸ The Contractor must submit the investigation / Lessons Learnt to ARTC via Aconex ▸ ARTC will review the investigation / lessons learnt and request any additional information / feedback it requires or believes is relevant to the Investigation / Lessons Learnt via Aconex as per Step 4 & 5	Timeframe dictated by Environmental Event severity or within mutually agreed timeframe where the investigation is directed by ARTC ***Note:** ARTC may at its discretion direct the contractor to complete / finalise within a specified timeframe*	Contractor Representative / ARTC Representative
Step 7	Finalise Environmental Event in SAI360	The Contractor must complete and finalise the Environmental Event Record within SAI360 (this will include any associated actions / investigations/ Lessons Learnt to finalise the Environmental Event Record)	No later than 72 hours after Step 5 or within a timeframe agreed with ARTC	Contractor Representative

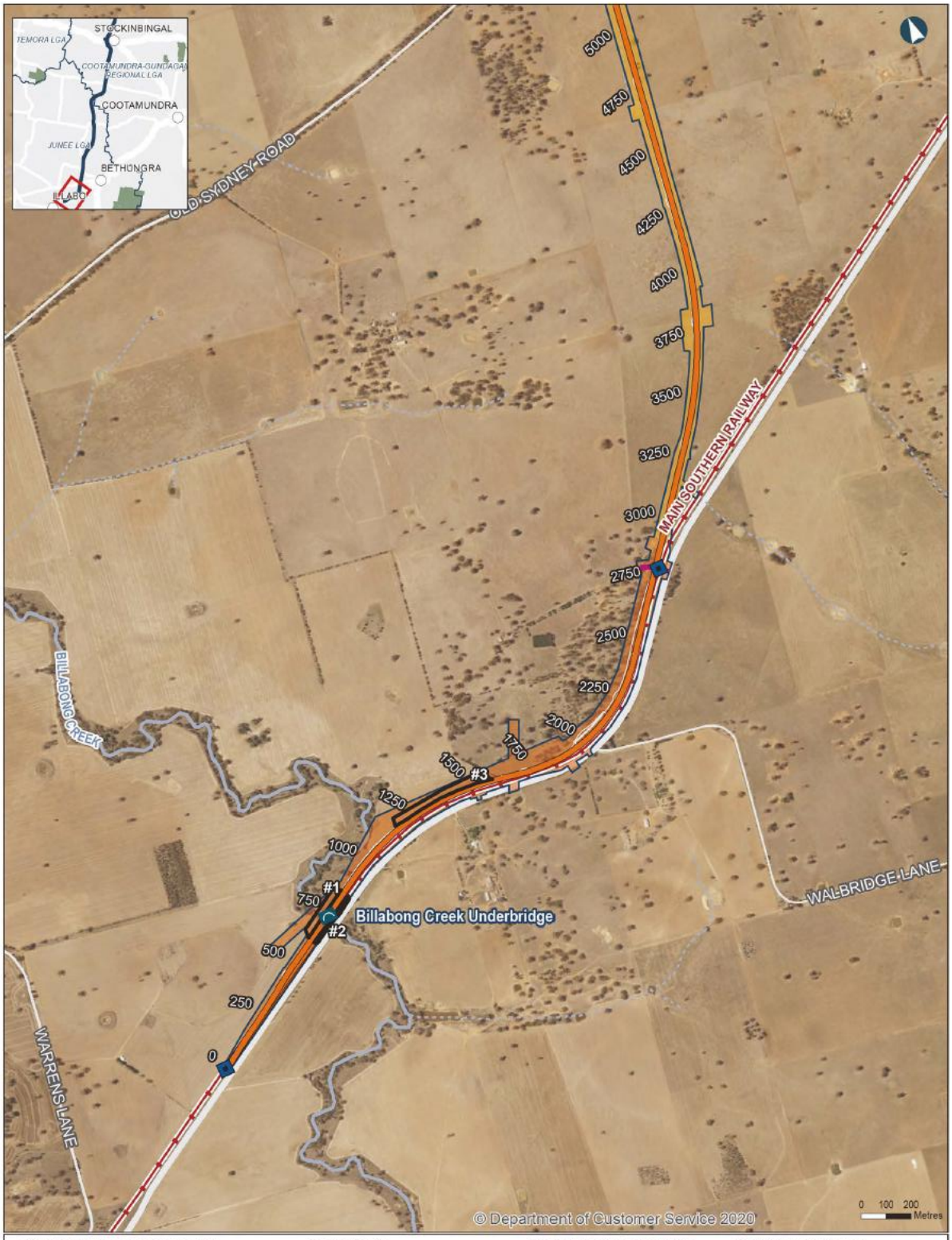
PROCESS STEP	STEP TITLE	TASK DESCRIPTION	TIMEFRAME	RESPONSIBLE ROLE
			Note: *ARTC may at its discretion direct the Contractor to complete / finalise within a specified timeframe*	
Step 8	Close Event	▸ ARTC will review the completed Environmental Event Record within SAI360 and once satisfied the Environmental Event Record will be complete ▸ If ARTC are not satisfied that enough information has been provided, the Contractor will be instructed to return to Step 4 and action as required in agreement with ARTC ***Note:*** *ARTC may require additional verification of the close out of events either through Environmental coordination meetings, Aconex or during an ARTC lead audit of the CEMF event management process*	Within 72 hours of completed Environmental Event Record ***Note:*** *ARTC may at its discretion direct the contractor to complete / finalise within a specified timeframe*	ARTC Representative
Step 9	Contractor Close event	Close event if agreed by ARTC	Within 72 hours of Step 8	Contractor Representative

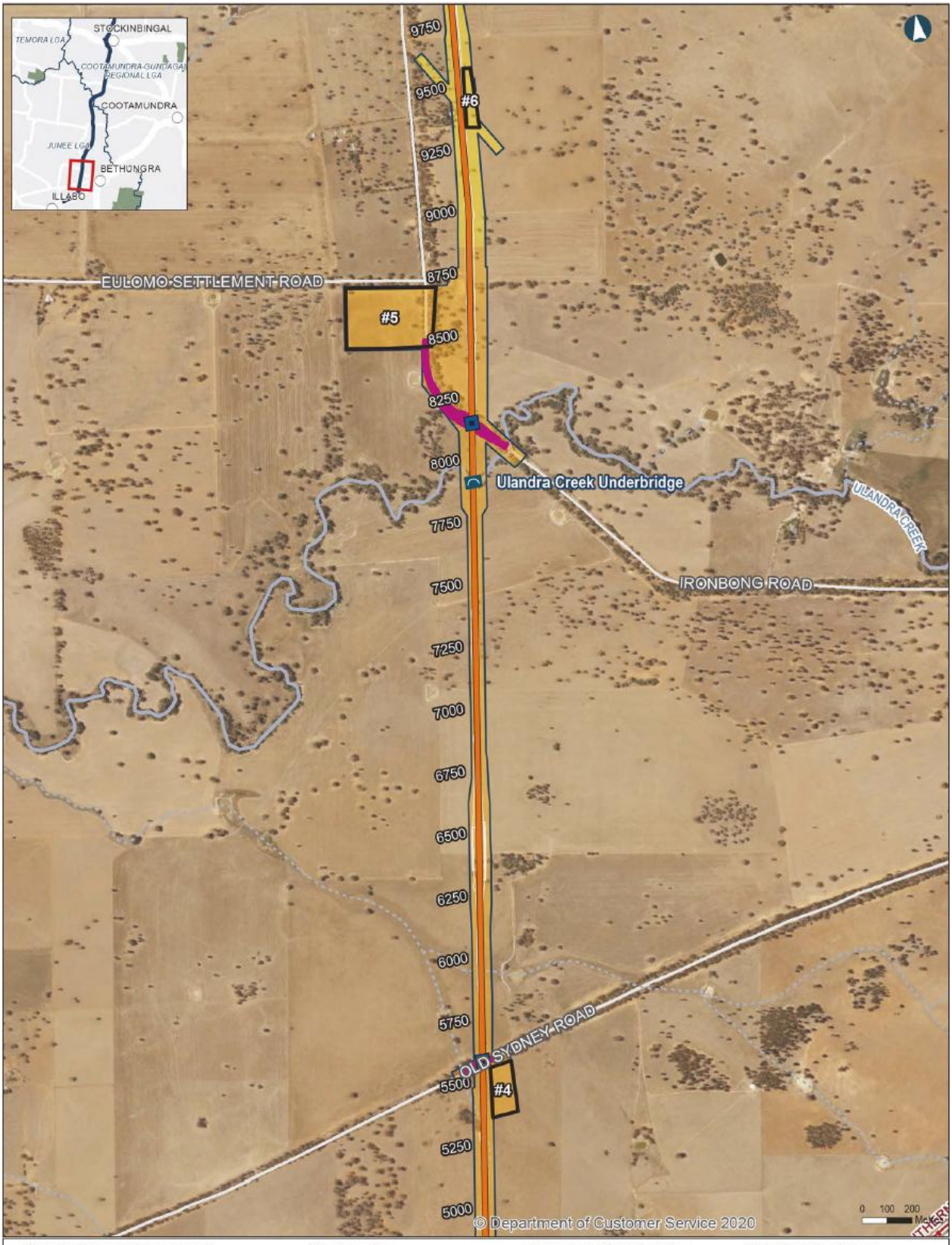
Appendix A7 - Document Register

Plan Name	Document Number
Construction Environmental Management Plan	I2S_5-0019-220-PMA-00-PL-0037
Noise and Vibration Management Sub-Plan	I2S_5-0019-220-PMA-00-PL-0054
Biodiversity Management Sub Plan	I2S_5-0019-220-PMA-00-PL-0055
Traffic, Transport and Access Management Sub Plan	I2S_5-0019-220-PMA-00-PL-0056
Soil and Water Management Sub Plan	I2S_5-0019-220-PMA-00-PL-0058
Heritage Management Sub Plan	I2S_5-0019-220-PMA-00-PL-0059
Flood Emergency Management Sub Plan	I2S_5-0019-220-PMA-00-PL-0062
Biosecurity Management Sub Plan	I2S_5-0019-220-PMA-00-PL-0061
Air Quality Management Sub Plan	I2S_5-0019-220-PMA-00-PL-0072
Contaminated Land and Hazardous Material Management Plan	I2S_5-0019-220-PMA-00-PL-0070
Groundwater Mitigation and Management Sub-Plan	I2S_5-0019-220-PMA-00-PL-0069
Waste Management Sub-Plan	I2S_5-0019-220-PMA-00-PL-0071

Appendix A8 - Ancillary Facility Maps

Sourced from Figure 8.1 from Chapter 8 of the EIS.





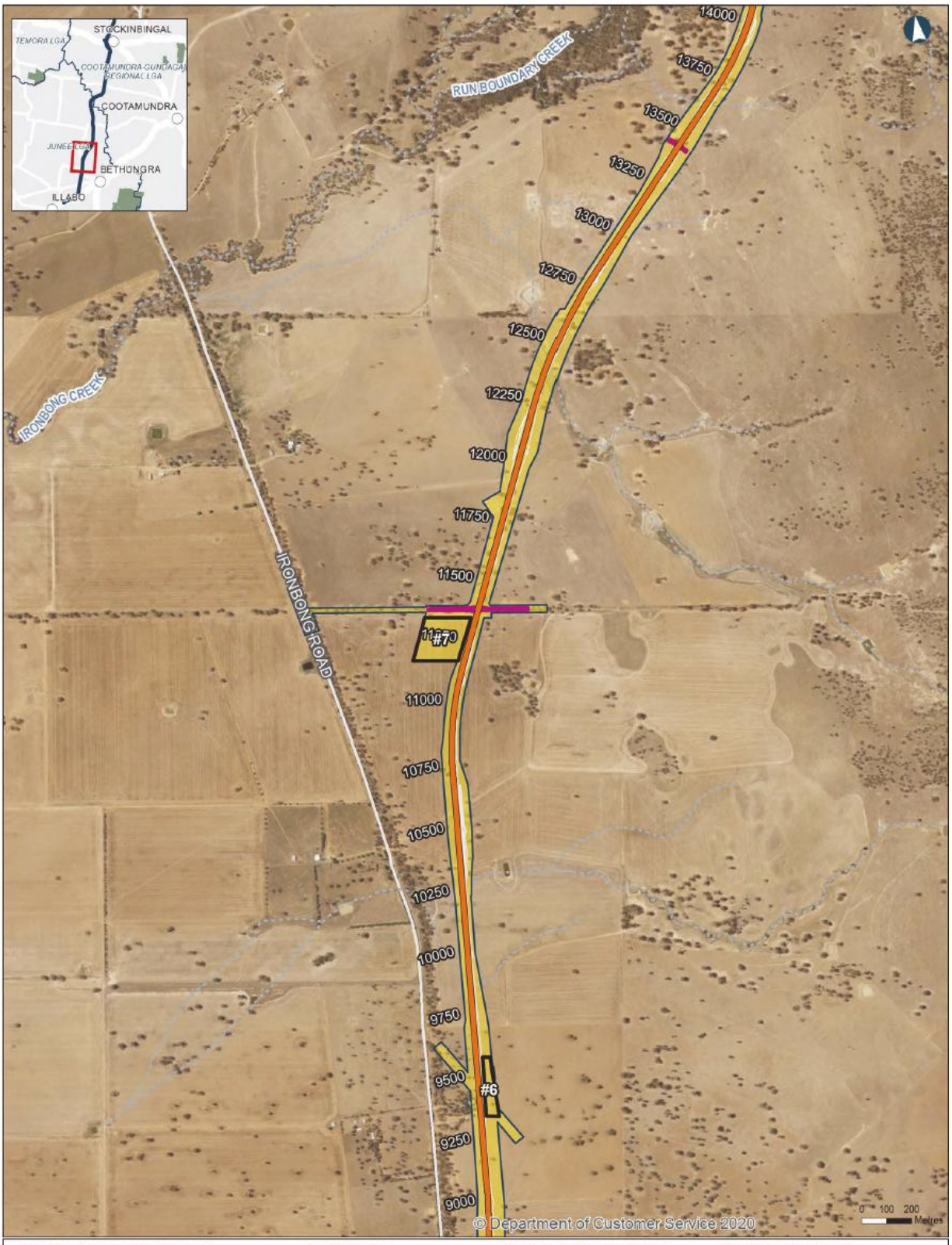
Key features of proposal
- Proposal alignment
- 40950 Chainage (distance in metres from southern limit of the proposal)
- Access point
- Proposal Site
- Earthworks
- Bridge (watercourse crossing)
- Construction Compounds
- Road realignment

Construction Section
- Section 2 (2,901-8,840)
- Section 3 (8,841-18,500)

Existing features
- Local road
- Sub-arterial road
- Arterial road
- Existing Rail
- Minor watercourse
- Major watercourse

8.1 Overview of proposal construction

Coordinate System: GDA 1994 MGA Zone 55
Date: 8/12/2021 Paper size: A4 Scale: 1:22,000
MAP 2 of 10



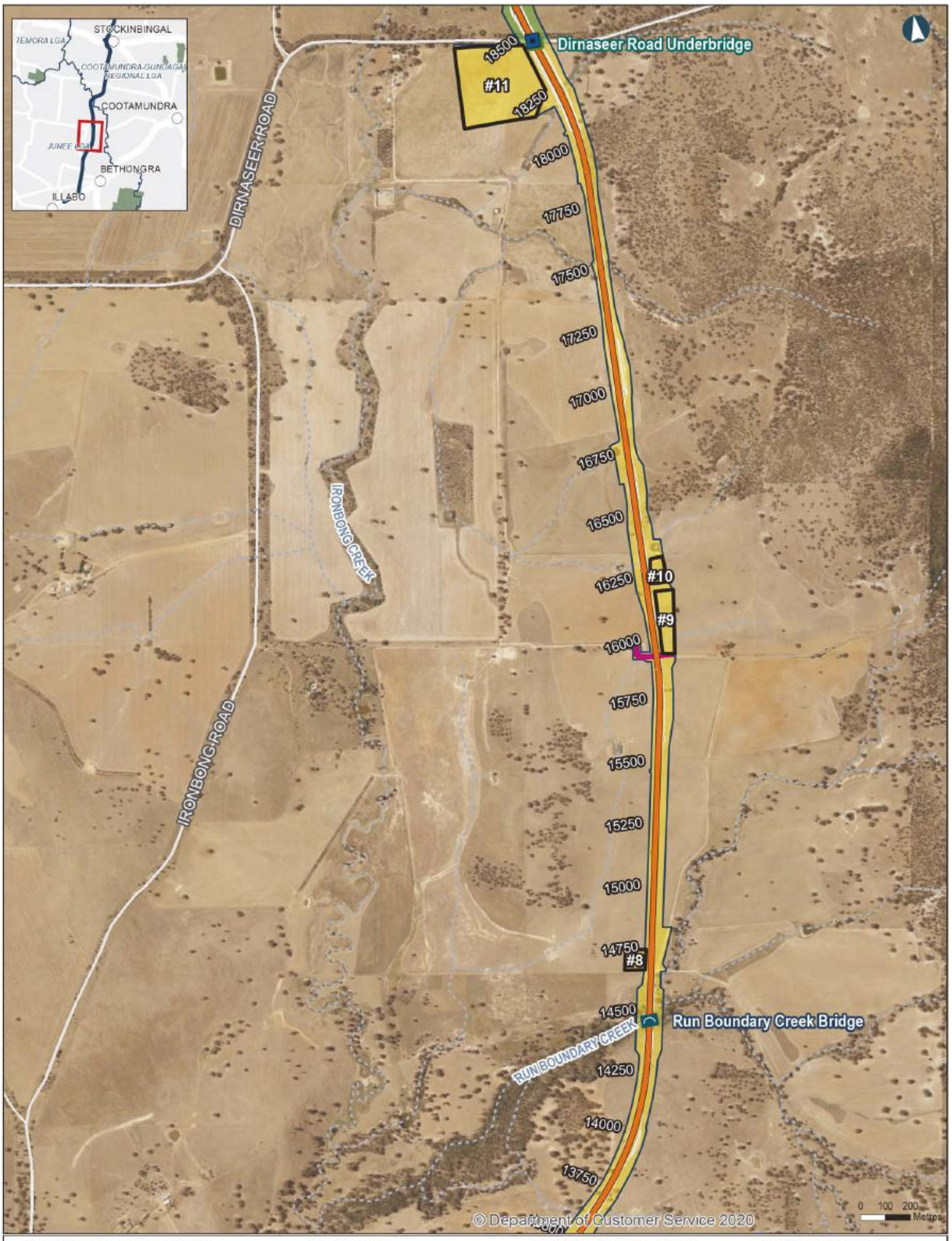
Key features of proposal
- Proposal alignment
- 40950 Chainage (distance in metres from southern limit of the proposal)
- Proposal Site
- Earthworks
- Construction Compounds
- Road realignment

Construction Section
- Section 2 (2,901-8,840)
- Section 3 (8,841-18,500)

Existing features
- Local road
- Sub-arterial road
- Arterial road
- Minor watercourse

8.1 Overview of proposal construction

Coordinate System: GDA 1994 MGA Zone 55
Date: 8/12/2021 Paper size: A4 Scale: 1:22,000
MAP 3 of 10



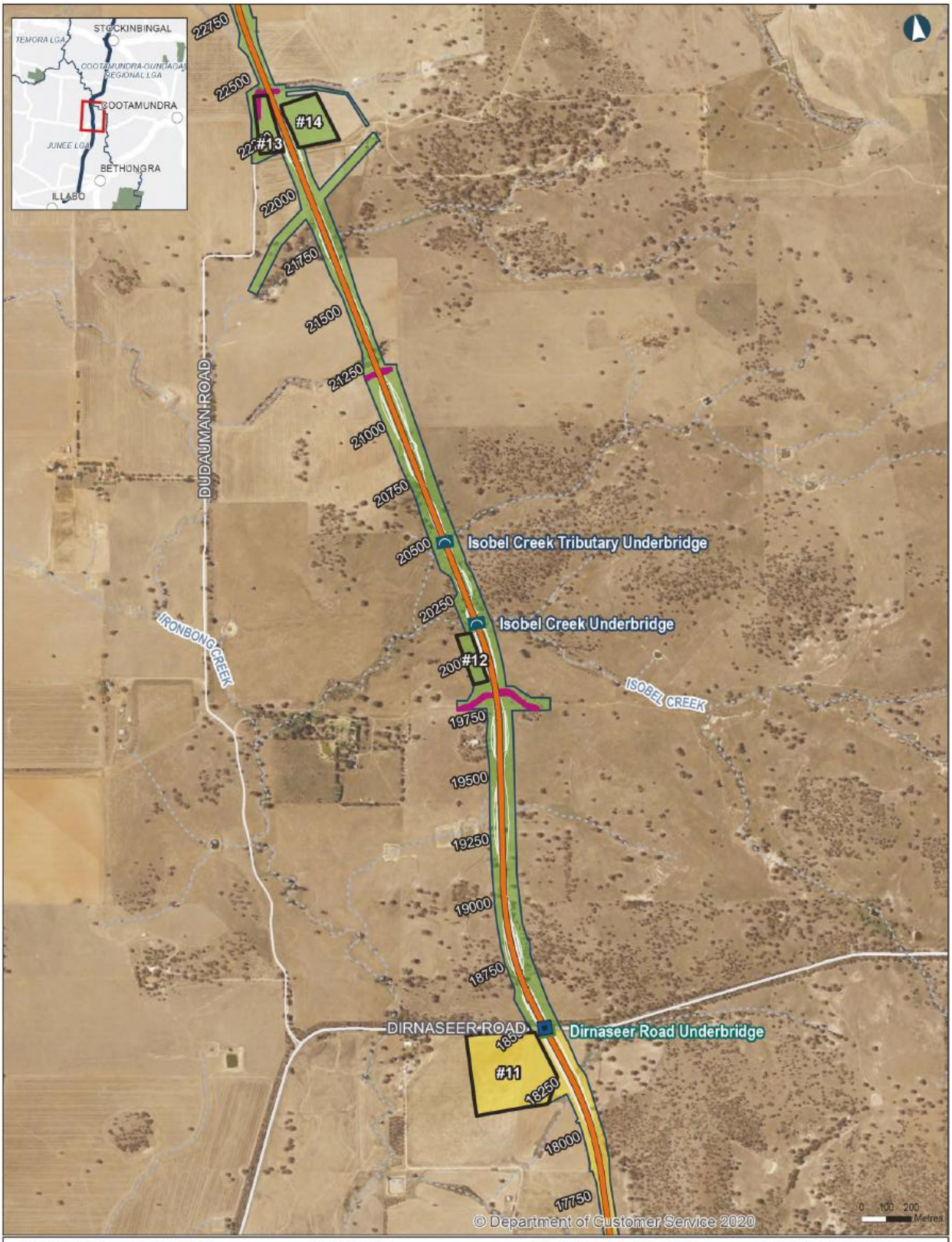
Key features of proposal
- Proposal alignment
- 40950 Chainage (distance in metres from southern limit of the proposal)
- Access point
- Proposal Site
- Earthworks
- Bridge (watercourse crossing)
- Bridge (road crossing)
- Construction Compounds
- Road realignment

Construction Section
- Section 3 (8,841-18,500)
- Section 4 (18,501-28,300)

Existing features
- Local road
- Sub-arterial road
- Arterial road
- Minor watercourse

8.1 Overview of proposal construction

Coordinate System: GDA 1994 MGA Zone 55
Date: 8/12/2021 Paper size: A4 Scale: 1:22,000
MAP 4 of 10



Key features of proposal
- Proposal alignment
- 40950 Chainage (distance in metres from southern limit of the proposal)
- Access point
- Proposal Site
- Earthworks
- Bridge (watercourse crossing)
- Bridge (road crossing)
- Construction Compounds
- Road realignment

Construction Section
- Section 3 (8,841-18,500)
- Section 4 (18,501-28,300)

Existing features
- Local road
- Sub-arterial road
- Arterial road
- Minor watercourse

8.1 Overview of proposal construction

Coordinate System: GDA 1994 MGA Zone 55
Date: 8/12/2021 Paper size: A4 Scale: 1:22,000
MAP 5 of 10



Key features of proposal

- Proposal alignment
- 40950 Chainage (distance in metres from southern limit of the proposal)
- Proposal Site
- Earthworks
- Construction Compounds
- Road realignment

Construction Section

- Section 4 (18,501-28,300)

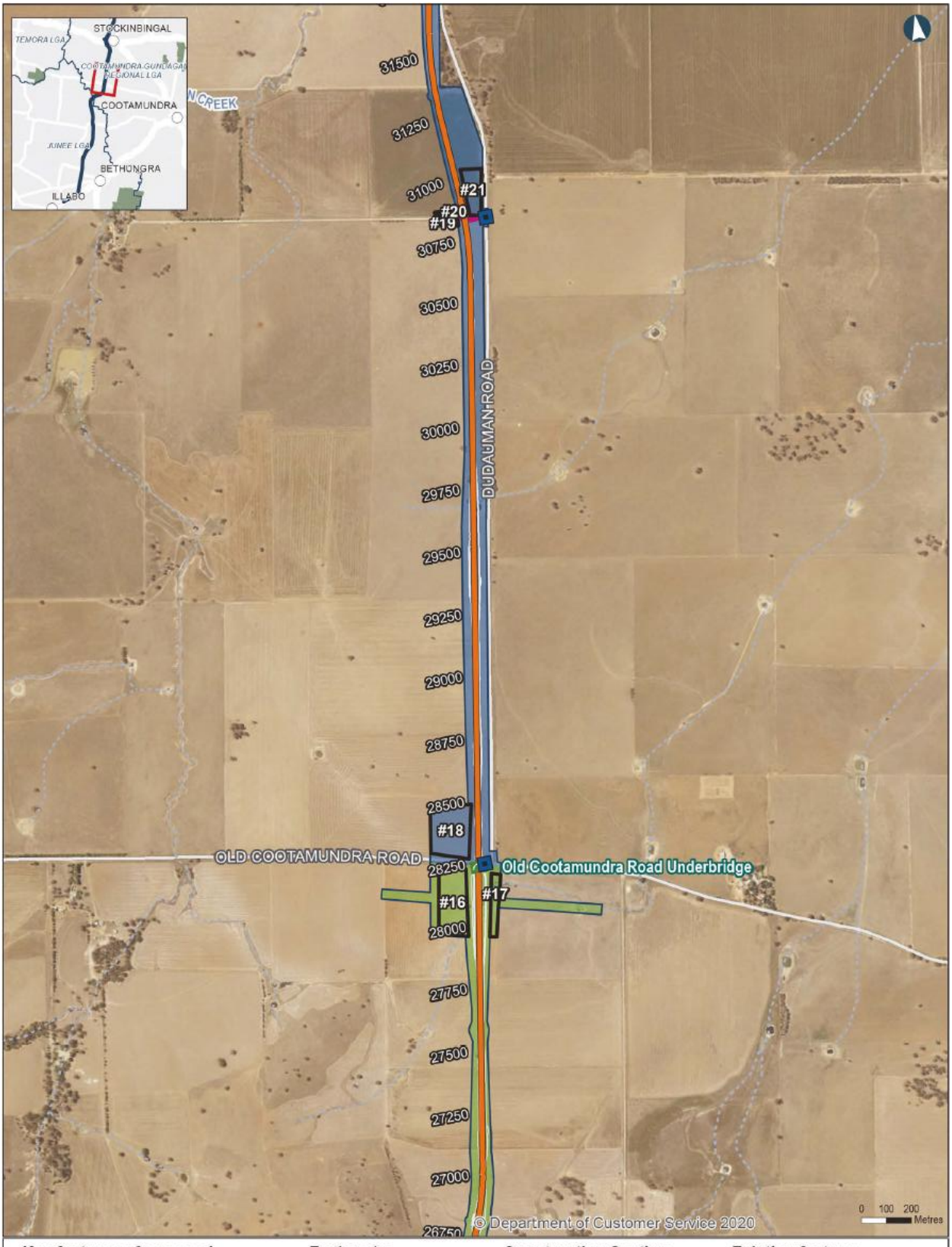
Existing features

- Local road
- Sub-arterial road
- Arterial road
- Minor watercourse

8.1 Overview of proposal construction

Coordinate System: GDA 1994 MGA Zone 55
Date: 8/12/2021 Paper size: A4 Scale: 1:22,000

MAP 6 of 10



Key features of proposal

- Proposal alignment
- 40950 Chainage (distance in metres from southern limit of the proposal)
- Access point
- Proposal Site
- Earthworks
- Bridge (road crossing)
- Construction Compounds
- Road realignment

Construction Section

- Section 4 (18,501-28,300)
- Section 5 (28,301-37,300)

Existing features

- Local road
- Sub-arterial road
- Arterial road
- Minor watercourse

8.1 Overview of proposal construction

Coordinate System: GDA 1994 MGA Zone 55
Date: 8/12/2021 Paper size: A4 Scale: 1:22,000

MAP 7 of 10



Key features of proposal
- Proposal alignment
- 40950 Chainage (distance in metres from southern limit of the proposal)
- Proposal Site
- Earthworks
- Bridge (watercourse crossing)
- Construction Compounds
- Road realignment

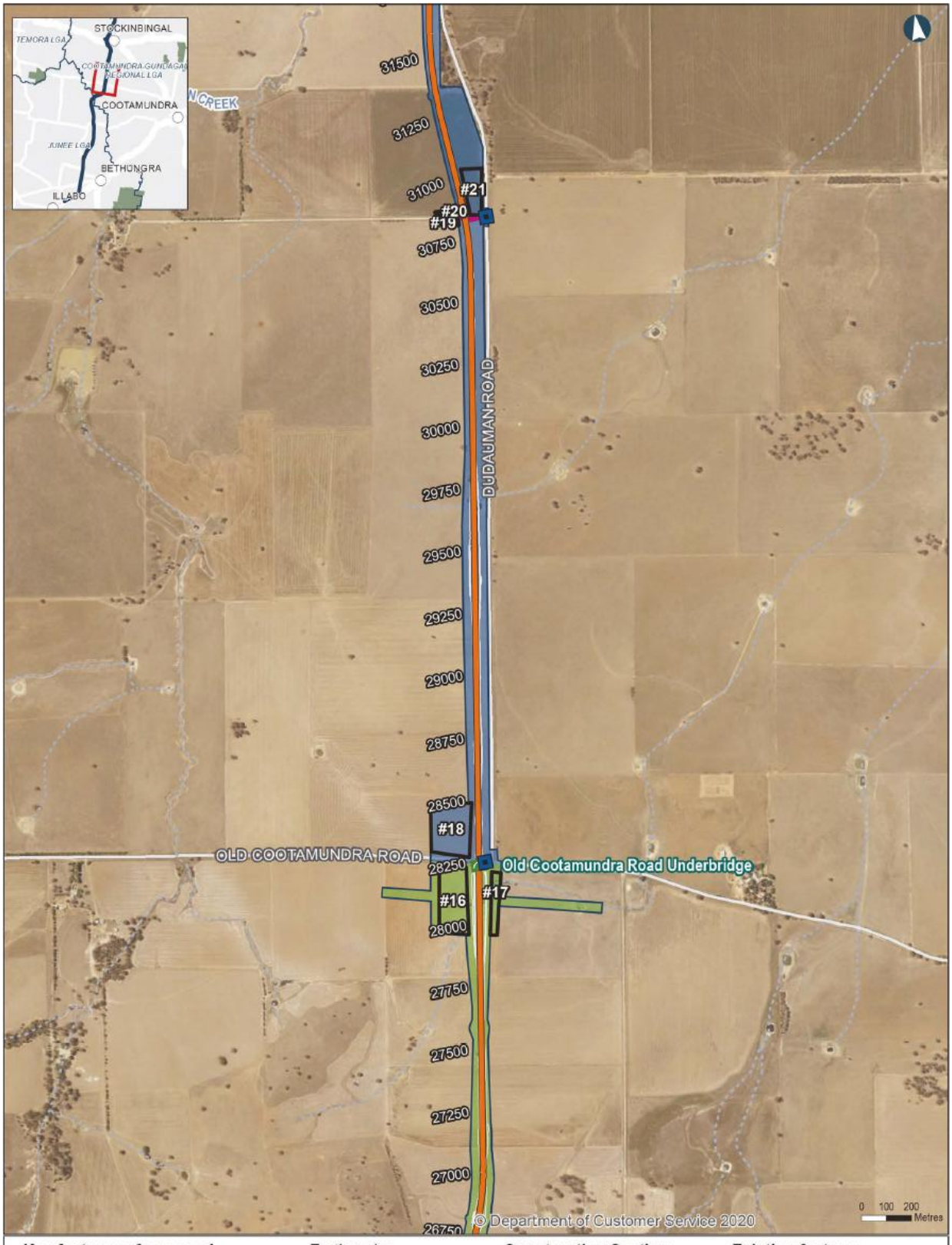
Construction Section
- Section 5 (28,301-37,300)

Existing features
- Local road
- Sub-arterial road
- Arterial road
- Minor watercourse
- Major watercourse

8.1 Overview of proposal construction

Coordinate System: GDA 1994 MGA Zone 55
Date: 8/12/2021 Paper size: A4 Scale: 1:22,000

MAP 8 of 10



Key features of proposal
- Proposal alignment
- 40950 Chainage (distance in metres from southern limit of the proposal)
- Access point
- Proposal Site
- Earthworks
- Bridge (road crossing)
- Construction Compounds
- Road realignment

Construction Section
- Section 4 (18,501-28,300)
- Section 5 (28,301-37,300)

Existing features
- Local road
- Sub-arterial road
- Arterial road
- Minor watercourse

8.1 Overview of proposal construction

Coordinate System: GDA 1994 MGA Zone 55
Date: 8/12/2021 Paper size: A4 Scale: 1:22,000
MAP 7 of 10



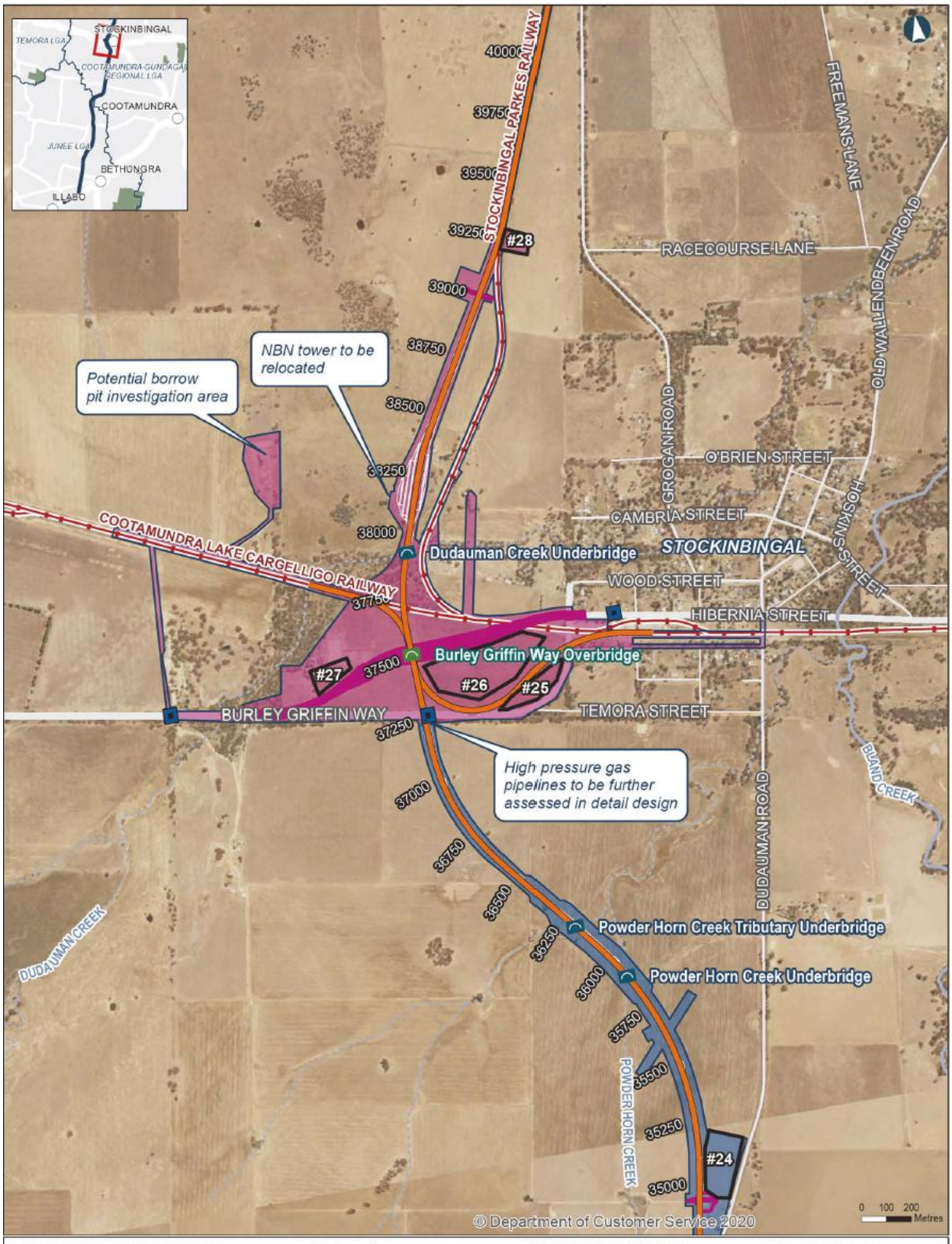
Key features of proposal
- Proposal alignment
- 40950 Chainage (distance in metres from southern limit of the proposal)
- Proposal Site
- Earthworks
- Bridge (watercourse crossing)
- Construction Compounds
- Road realignment

Construction Section
- Section 5 (28,301-37,300)

Existing features
- Local road
- Sub-arterial road
- Arterial road
- Minor watercourse
- Major watercourse

8.1 Overview of proposal construction

Coordinate System: GDA 1994 MGA Zone 55
Date: 8/12/2021 Paper size: A4 Scale: 1:22,000
MAP 8 of 10



Key features of proposal
- Proposal alignment
- 40950 Chainage (distance in metres from southern limit of the proposal)
- Access point
- Proposal Site

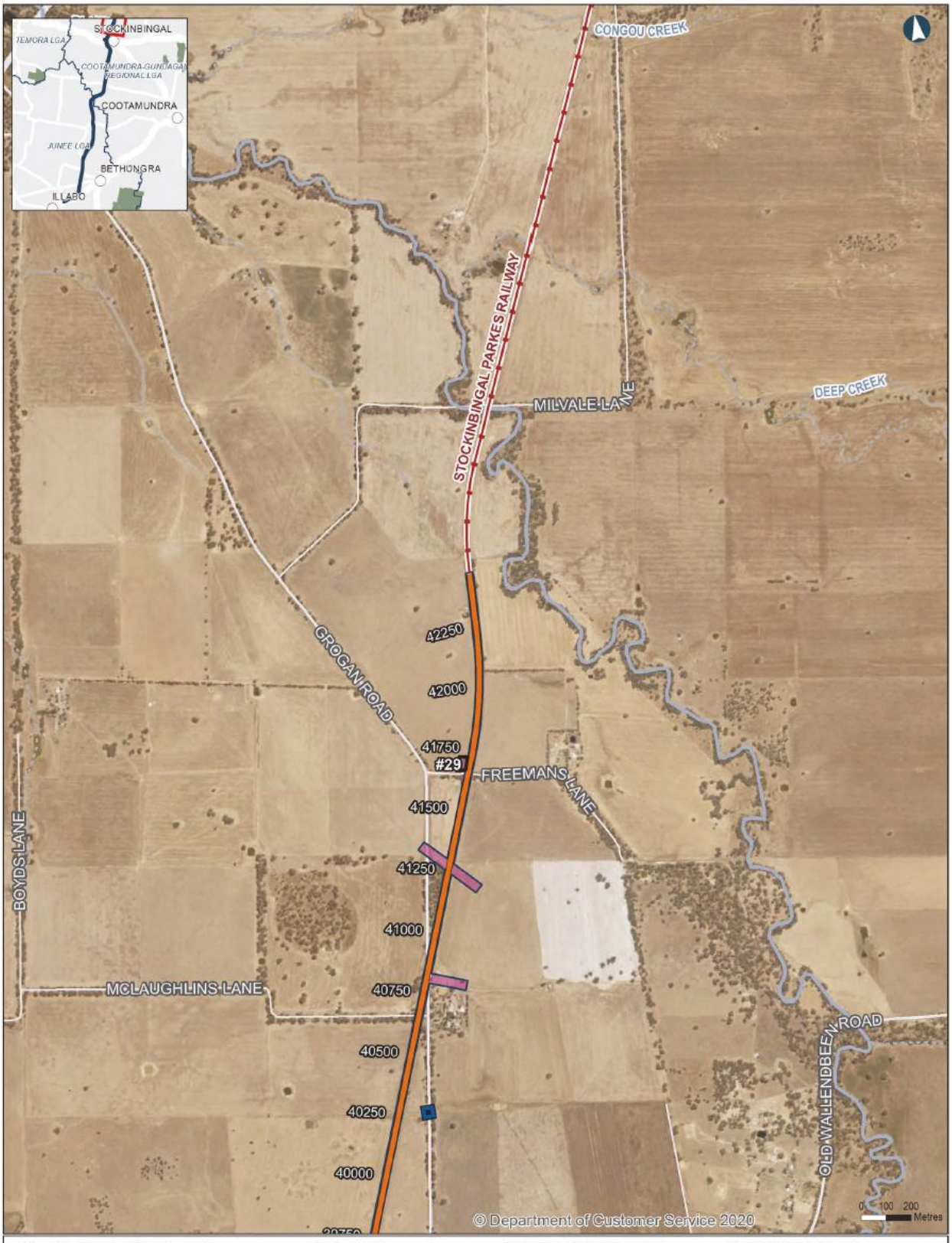
- Earthworks
- Bridge (watercourse crossing)
- Bridge (road crossing)
- Construction Compounds
- Road realignment

Construction Section
- Section 5 (28,301-37,300)
- Section 6 (37,300-42,600)

Existing features
- Local road
- Sub-arterial road
- Arterial road
- Existing Rail
- Minor watercourse
- Major watercourse

8.1 Overview of proposal construction

Coordinate System: GDA 1994 MGA Zone 55
Date: 8/12/2021 Paper size: A4 Scale: 1:22,000
MAP 9 of 10



Key features of proposal
- Proposal alignment
- 40950 Chainage (distance in metres from southern limit of the proposal)
- Access point
- Proposal Site
- Earthworks
- Construction Compounds

Construction Section
- Section 6 (37,300-42,600)

Existing features
- Local road
- Sub-arterial road
- Arterial road
- Existing Rail
- Minor watercourse
- Major watercourse

8.1 Overview of proposal construction

Coordinate System: GDA 1994 MGA Zone 55
Date: 8/12/2021 Paper size: A4 Scale: 1:22,000
MAP 10 of 10

Appendix A9 – Minor Ancillary Facility Assessment Checklist

Site Name	
Location Description	
Chainage	

Criteria for minor ancillary facilities

This minor ancillary facility checklist is to be used for minor construction related ancillary facilities including minor site sheds, lunch sheds and portable toilets. These facilities will be located in accordance with CoA Condition C9 and submitted to the Environmental Representative (ER) for review, and ER endorsement prior to installation. Criteria for the assessment is presented in Table 1.

Table 1 – Criteria for minor ancillary facilities

Criteria	Compliant (Y/N)	Comments
Located within the construction boundary		
Minimal amenity impacts to surrounding residences and businesses, after consideration of matters such as compliance with:		
a) Traffic and access impacts,		
b) Dust and odour impacts		
c) Visual (including light) impacts		
d) Minimal environmental impact with respect to waste management and flooding		
e) No impacts on the below beyond those already approved under other terms of this approval		
f) Biodiversity		
g) Heritage (Aboriginal or non-Aboriginal)		
h) Soil and Water		
i) Contamination risks		

A locational map including site layout and environmental constraints is attached in Appendix A.

Mitigation Measures

If the above criteria is not satisfied, add addition mitigation measures to Table 1 below.

Table 2 – Specific Mitigation Measures

Measure / Requirement	Responsibility	Timing / Frequency	Reference
Insert Topic			
Insert applicable mitigation measures			

Certification

This minor ancillary facility checklist provides a true and fair review of the proposed activity for the I2S Project.

Project Environment and Sustainability Manager

Signed	
Name	
Date	

Environmental Representative

Signed	
Name	
Date	

Inland Rail Environmental Representative

Signed	
Name	
Date	

Appendix A10 – Unexpected and Incidental Finds Protocol and Procedure

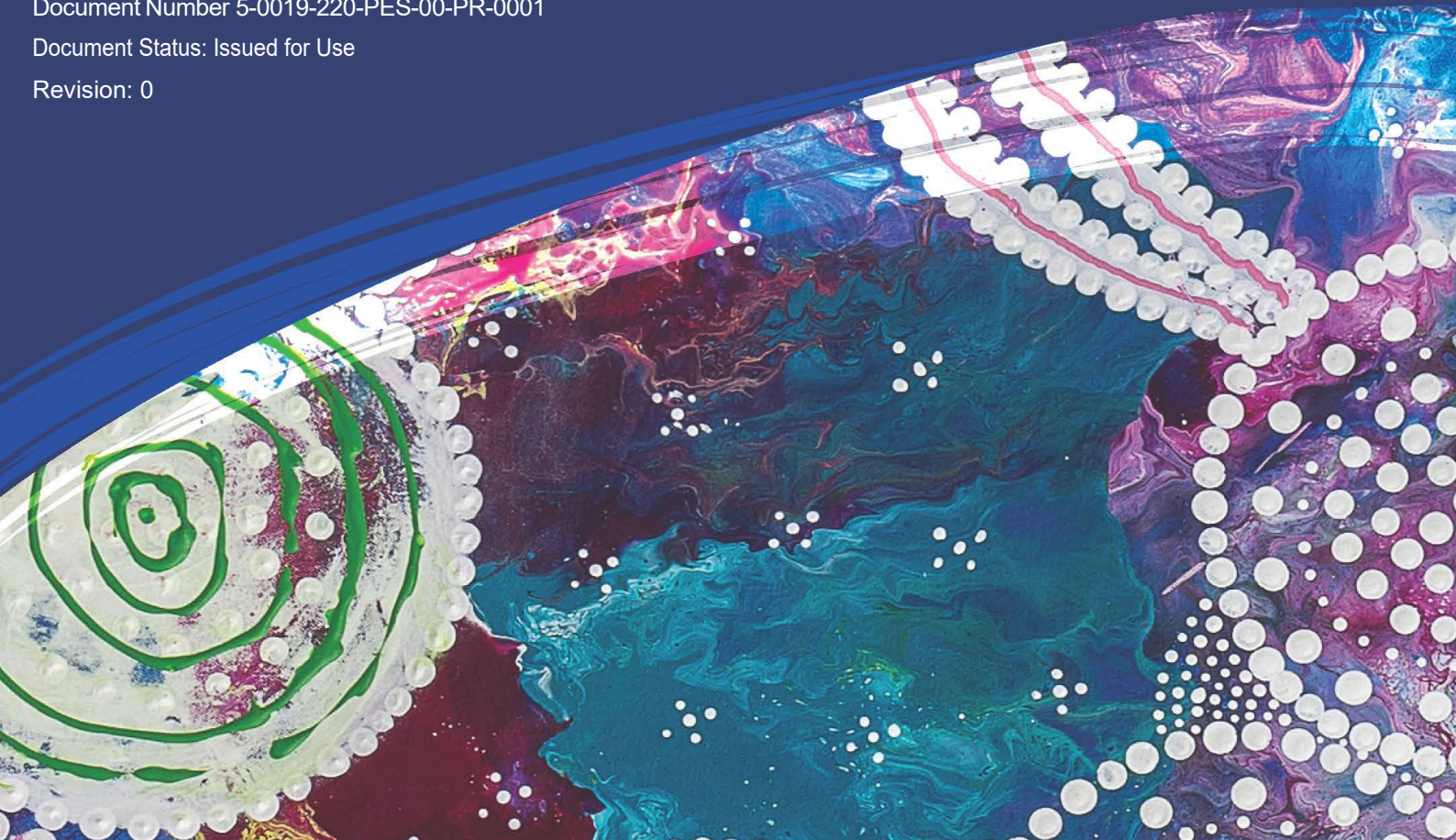


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ILLABO TO STOCKINBINGAL PROJECT

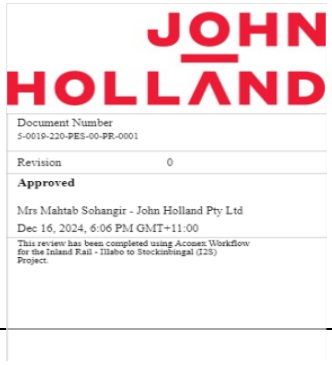
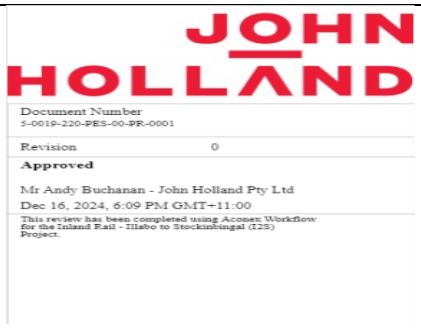
Unexpected and Incidental Finds Protocol

Document Number 5-0019-220-PES-00-PR-0001
Document Status: Issued for Use
Revision: 0



Document Control

Document Tite	Unexpected and Incidental Finds Protocols and Procedure
IRPL Document No.	5-0019-220-PES-00-PR-0001
Document Owner	Hugh Goymour

Revision status		
Revision A		
Company name	Apical Environmental Consultants	
Specialists	Scott Grunsell, Planning Approval Specialist	
Revision B		
Company name(s)	Intiapac and NGH Consulting	
Approvals Specialist	Lahnie Cooper, Environment and Compliance Specialist	
Heritage Specialist	Matthew Barber, Technical Director	
Contamination Specialist	Nicola Smith, Technical Lead Environmental Management	
Ecology Specialist	Jane Love, Technical Lead Environmental Management	
Document Owner	Hugh Goymour	
	REVIEWED BY	**APPROVED BY**
Name	Mahtab Sohangir	Andy Buchanan
Title	Environment & Sustainability Manager	Project Manager
Signature **Date**		

Review and endorsement by site auditor	
Endorsed By	Julie Evans
Date	3/12/2024

Revision History

REVISION	DATE ISSUED	DESCRIPTION
A	25/10/2024	Issued for Review
B	3/12/2024	Issued for Review
C	13/12/2024	Issued for Review
D	16/12/2024	Issued for Review
0	16/12/2024	Issued for Use

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Figure 1.2 Key features of proposal. From Illabo to Stockinbingal EIS, Chapter 1 9

Appendices

Appendix A – Unexpected Finds Procedure – Biodiversity
Appendix B - Unexpected Finds Procedure – Heritage and Human Remains
Appendix C - Unexpected Finds Procedure – Contamination
Appendix D – Interim Audit Advice

1.0 Revisions and Distribution

1.1 Revisions

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

1.2 Distribution

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

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Environmental Representative	Steven Fermio– Wolfpeak

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2.0 Definitions / Abbreviations

Table 2-1: Definitions and Abbreviations

Term/Abbreviation	Definition
Aboriginal object	Any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction and includes Aboriginal remains as per the *National Parks and Wildlife Act 1974* Examples: - Stone tool artefacts - Axe grinding grooves - Pigment or engraved rock art - Burial sites - Scarred trees
ACM	Asbestos Containing Material
ARTC	Australian Rail Track Corporation
ASS	Acid Sulphate Soils
BAM	Biodiversity Assessment Method
BC Act	*Biodiversity Conservation Act 2016*
CEMP	Construction Environmental Management Plan
CA Act	*Coroner's Act 2009*
CoA	Conditions of Approval
CSSI	Critical State Significant Infrastructure
DPHI	Department of Planning Housing and Infrastructure
Environmental Assessment Documentation	• Inland Rail – Illabo to Stockinbingal Environmental Impact Statement (ARTC 2022) • Illabo to Stockinbingal Project Response to Submissions (ARTC 2023) • Response to Submissions – Appendix E - Biodiversity Development Assessment Report version 12 (IRDJV, June 2024) • I2S – Mitigation Measures (Inland Rail, April 2024) • Illabo to Stockinbingal (SSI-9604) Additional and Appropriate Measures for Box Gum Woodland Impacts (Inland Rail, June 2024) • Technical and Approvals Consultancy Services: Illabo to Stockinbingal – Box Gum Woodland Gum Flat Rehabilitation Opportunity (IRDJV, June 2024)
EPA	NSW Environment Protection Authority
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
ER	Environmental Representative
Heritage Act	*Heritage Act 1977*
HNSW	Heritage NSW
Human remains	Human remains may be identified as either Aboriginal objects or non-Aboriginal relics, depending on the individual's ancestry and the burial context. Remains are considered to be archaeological when it is suspected that they date back 100 years or more.
IRPL	Inland Rail Pty Ltd
I2S	Illabo to Stockinbingal
JH	John Holland
LALC	Local Aboriginal Land Council

Term/Abbreviation	Definition
LGA	Local Government Area
LIW	Low Impact Works Work defined as low impact includes: (a) survey works including carrying out general alignment surveys, installing survey controls (including installation of global positioning system (GPS)), installing repeater stations, carrying out surveys of existing and future utilities and building and road dilapidation surveys; (b) investigations including investigative drilling, contamination investigations and excavation; (c) installation of mitigation measures including erosion and sediment controls, temporary exclusion fencing for sensitive areas and acoustic treatments; (d) property acquisition adjustment work including installation of property fencing; (e) archaeological testing under the Code of practice for archaeological investigation of Aboriginal objects in NSW (Department of Environment Climate Change and Water, 2010) or archaeological monitoring undertaken in association with Low Impact work to ensure that there is no impact on heritage items; (f) archaeological and cultural salvage undertaken in accordance with a strategy or salvage operation required by the conditions of this approval; (g) maintenance work to existing buildings and structures as required to facilitate the carrying out of the CSSI; and (h) other activities determined by the ER to have minimal environmental impact which may include relocation and connection of utilities, establishment of minor ancillary facilities in accordance with Condition C9 construction of minor access roads (other than access roads' connection to the road network), temporary relocation of pedestrian paths and the provision of property access. (i) Site establishment work approved under a Site Establishment Management Plan in accordance with Condition C5. Despite the above, the following works are not Low Impact Work: (i) where heritage items, or threatened species or their habitat, or threatened ecological communities (within the meaning of the Biodiversity Conservation Act 2016), are adversely affected or potentially adversely affected by any low impact work as defined in (a) to (n) above, that work is construction, unless otherwise determined by the Planning Secretary in consultation with Heritage NSW, EHG BCS or DPI Fisheries (in the case of impact upon fish, aquatic invertebrates or marine vegetation); and (ii) any Work undertaken outside the hours specified in Condition E1 that exceeds noise management and vibration levels as identified in Condition E3 (b). *Notes:* *1. Early stages of Work are not necessarily low impact work.* *2. Low Impact work is not Construction as defined by this approval.* *3. The low impact work described in this definition becomes Construction with the approval of a CEMP. 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.*
Non-Aboriginal heritage items	"Any deposit, artefact, object or material evidence that relates to the settlement of the area that comprises NSW, not being Aboriginal settlement; and is of State or local heritage significance" as defined by the *Heritage Act*. Items may include: - Archaeological relics - Other historic items (i.e., works, structures, buildings, or movable objects).
NPW Act	*National Parks and Wildlife Act 1974*

Term/Abbreviation	Definition
NSW	New South Wales
PCBs	Polychlorinated biphenyls
POEO Act	*Protection of the Environment Operations Act 1997*
Protocol	This Unexpected and Incidental Finds Protocol
RAP	Registered Aboriginal Party
Relics	Relics are archaeological items of local or state significance in NSW, reflecting past domestic, industrial, or agricultural activities. Examples include bottles, pottery, and building materials.
TEC	Threatened Ecological Communities
UEMM	Updated Environmental Management Measures
Unexpected Heritage Find	An Aboriginal or non-Aboriginal object, relic, feature, or place discovered (or suspected to be present) during the carrying out of the CSSI of heritage significance which was not identified in the documents listed in CoA A1. An unexpected heritage find can include human remains if they are deemed to be historical.
Work	Any physical work for the purpose of the CSSI including construction and low impact work, but not including operational maintenance work.

3.0 Introduction

3.1 Background

Inland Rail is an approximate 1,600 kilometres (km) freight rail network that will connect Melbourne and Brisbane via regional Victoria, New South Wales (NSW) and Queensland. Comprising 12 sections, a staged approach is being undertaken to deliver Inland Rail.

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

The Project is located in south-western New South Wales (NSW) in the Riverina region (Figure 1.1). Illabo is a small town of approximately 132 people (Australian Bureau of Statistics, 2021) located at the southern end of the alignment, 16 kilometres (km) north-east of Junee in the Junee Local Government Area (LGA). Stockinbingal is a town of approximately 347 people (Australian Bureau of Statistics, 2021) is situated at the northern end of the project, approximately 20 km north-west of Cootamundra in the Cootamundra–Gundagai Regional LGA. The major towns surrounding the project are Wagga Wagga, about 50 km to the south, Young to the north-east and Cootamundra to the east.

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

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

- Connection to other rail lines, including Stockinbingal to Parkes line, Lake Cargelligo line, and Main Southern Railway
- One crossing loop and maintenance siding
- Level crossings and stock crossings
- Bridges over rivers and other watercourses, floodplains, and roads
- Upgrades of around 3.5 km of existing track for the tie-in works to the existing Main South Line at Illabo
- New track to maintain Lake Cargelligo line connection either side of the proposal
- Realignment and road-over rail bridge for a section of the Burley Griffin Way at Stockinbingal

- Realignment of Ironbong Road to allow for safe sight lines at the new active level crossing
- Ancillary infrastructure to support the proposal, inclusive of signalling and communications, drainage, drainage control areas, signage and fencing, and services and utilities
- Construction infrastructure, including ancillary facilities, and a temporary workforce accommodation facility.

The Project will also include upgrades to approximately 3 km of existing track associated with tie-in works and construction of an additional 1.7 km of new track to maintain the existing rail network connections. Road upgrade works will also be undertaken to re-align approximately 1.4 km of Burley Griffin Way to provide a road-over-rail bridge at Stockinbingal. Re-alignment of Ironbong Road will also be completed to allow for safe sight lines. A temporary workforce accommodation camp will also be constructed to house the workforce for the duration of works. Key features of the Project are shown on Figure 1.2.

This Unexpected and Incidental Finds Protocol (Protocol) details the actions to be taken should any unexpected or incidental finds occur relating to:

- Threatened species or threatened ecological communities (TEC)
- Contamination hazards or contaminated land
- Aboriginal Cultural Heritage and non-Aboriginal Heritage and human remains.

The Protocol also details the response procedures, reporting and notification requirements in the case of unexpected and incidental finds.

This Unexpected and Incidental Finds Protocol (Protocol) applies to all works, including low impact works (LIW).

3.2 Scope

This Protocol is applicable to any physical work for the purpose of the Critical State Significant Infrastructure (CSSI), including construction and LIW, but not including operational maintenance work. This Protocol should be read in conjunction with the Construction Environmental Management Plan (CEMP) and relevant Sub-Plans. This Protocol outlines how John Holland (JH) proposes to manage unexpected and incidental finds, related to the following aspects, during works associated with the I2S Project:

- Threatened species and threatened ecological communities
- Contamination, hazards and contaminated land
- Aboriginal cultural heritage
- Non-Aboriginal heritage
- Human remains.

The Protocol outlines procedures for stopping work near unexpected or incidental finds to prevent further impact, along with steps for notifying relevant stakeholders and state agencies in writing through an established notification pathway.

The existence of this Protocol does not replace the need to prepare Environmental Work Method Statements and/or Safe Work Method Statements where required in accordance with other documents e.g. CEMP. This document is not intended to provide management controls required to protect human safety or meet health and safety industry requirements.

This document has been prepared by suitably qualified persons (in each discipline associated with the Unexpected Finds Protocol). These suitably qualified persons (SQE's) have over 5 years' experience in each field for similar projects to that of I2S (contamination, ecology, non-Aboriginal Heritage and Aboriginal Heritage) and hold the relevant qualifications required to act as SQE's in the preparation and endorsement of this document.

3.3 Purpose

This Protocol has been developed in accordance with Condition of Approval (CoA) A17, the Unexpected Heritage Finds and Human Remains Procedure prepared under CoA E143 (Appendix B) and the Unexpected Finds Procedure for Contamination under CoA E161 (Appendix C). This Protocol will be implemented in the event of an unexpected find relating to biodiversity, heritage (both Aboriginal and non-Aboriginal), human remains and contamination. An unexpected find is considered when an item relating to any of these aspects is uncovered that has not been previously identified within site investigations undertaken as part of the Environmental Assessment Documentation listed under CoA A1.

In the event of an unexpected or incidental find, specialist consultants, and relevant technical specialists, will be engaged to advise on the management and potential assessment of the unexpected find identified during work. Response procedures for unexpected finds are provided in Appendix A, B and C.

This Protocol and associated procedures will be implemented for the duration of all LIW and construction work associated with the I2S Project.

3.4 Objectives

The key objective of this Protocol is to provide a framework outlining appropriate environmental response procedures to be implemented during LIW and construction activities. These procedures will be implemented to minimise risks associated with unexpected and incidental finds relating to threatened species or threatened ecological communities (TEC), contamination, hazards or contaminated land, Aboriginal Cultural Heritage, non-Aboriginal Heritage and suspected human remains.

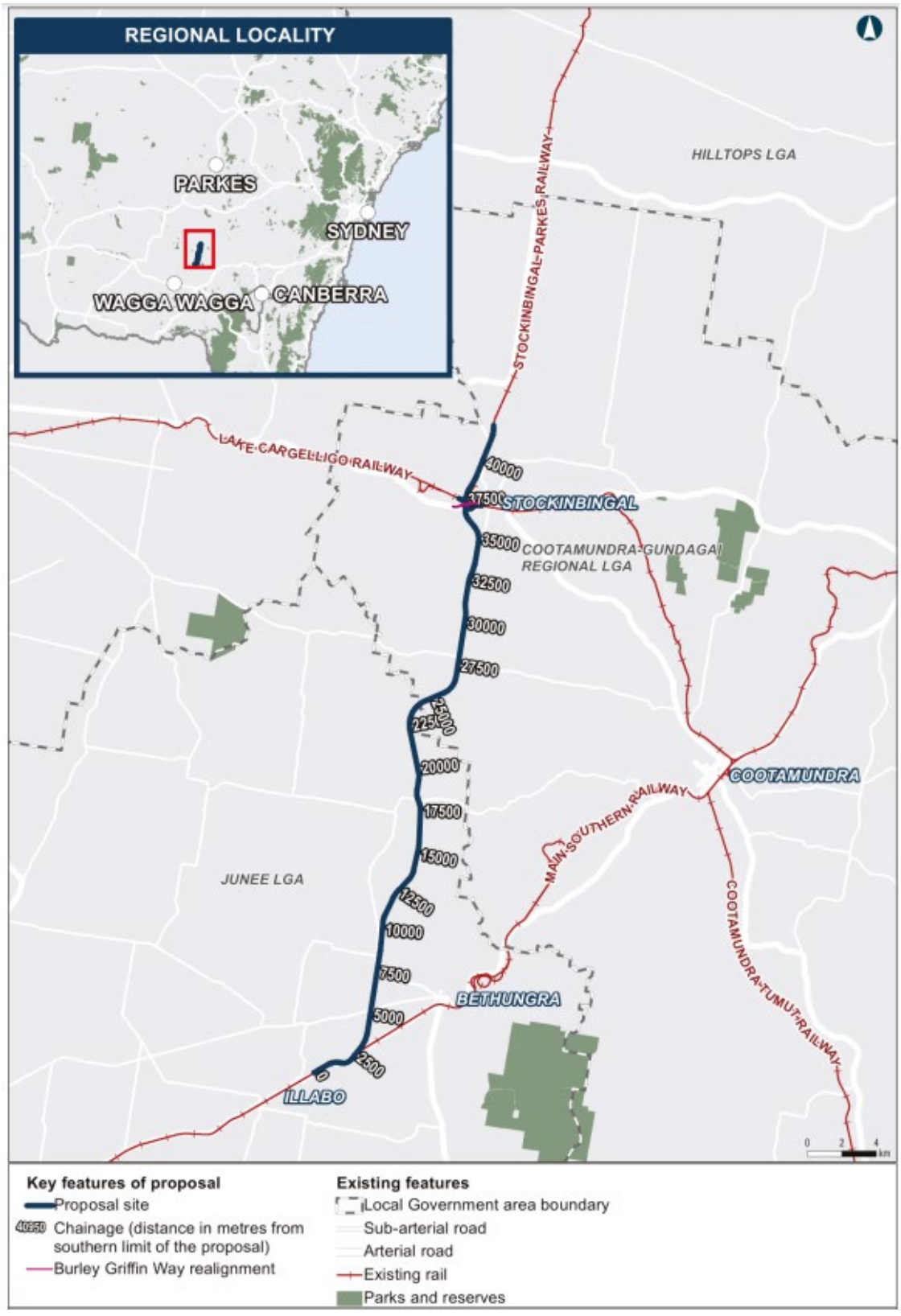


Figure 1.1 Project Locality. ***From Illabo to Stockinbingal EIS, Chapter 1***

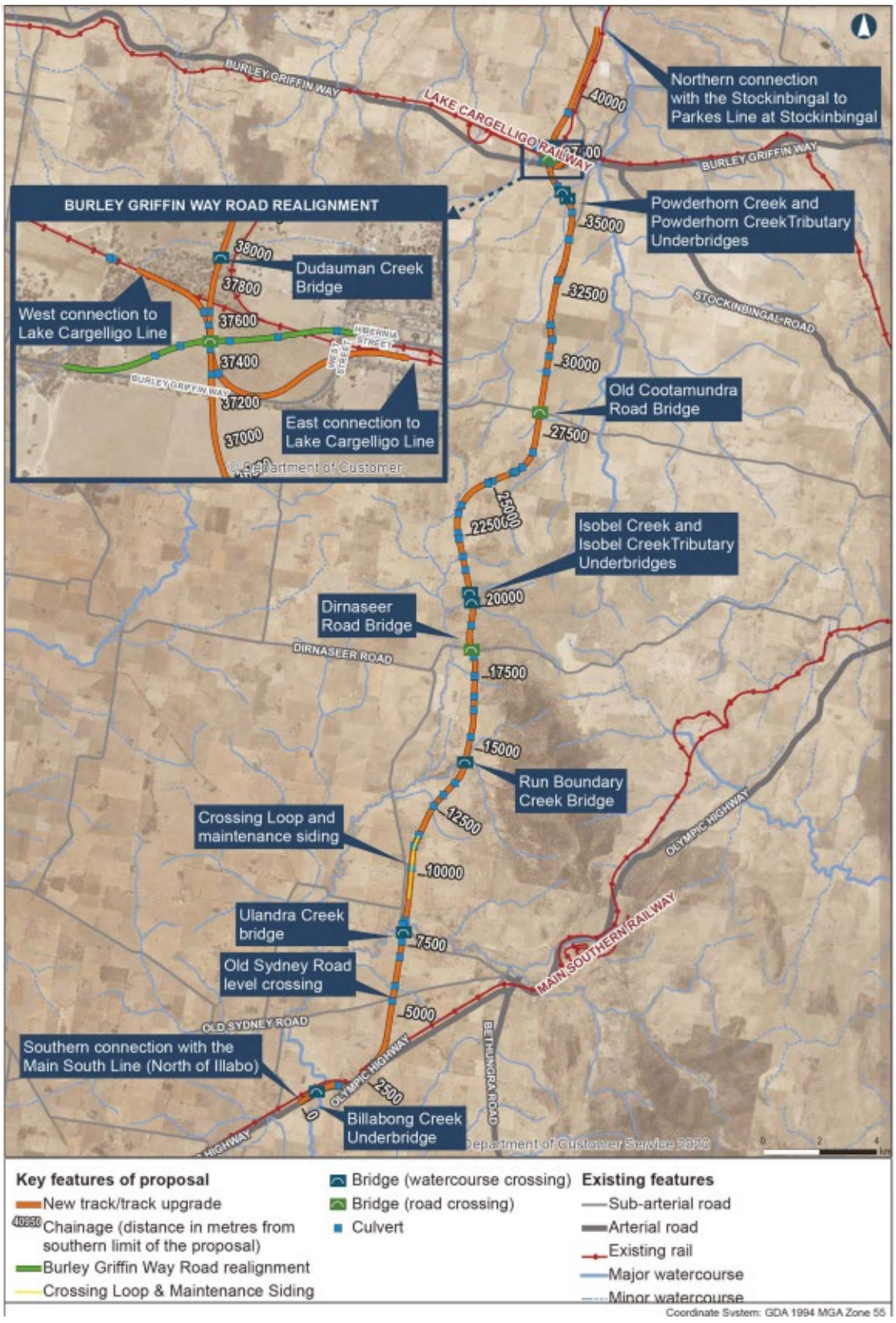


Figure 1.2 Key features of proposal. From Illabo to Stockinbingal EIS, Chapter 1

3.5 Relevant Legislation and Guidelines

Table 3-1 lists the principal legislation, regulation, plans, policies, guidelines, specifications, and Australian Standards that apply to this Protocol for the I2S Project.

Table 3-1: Relevant Legislation and Guidelines

Legislation	***Commonwealth Legislation*** • *Environment Protection and Biodiversity Conservation Act 1999* ***NSW Legislation*** • *Biodiversity Conservation Act 2016* • *Fisheries Management Act 1994* • *National Parks and Wildlife Act 1974* • *Biosecurity Act 2015* • *Protection of the Environment Operations Act 1997* • Protection of the Environment Operations (General) Regulation 2022 • Protection of the Environment Operations (Waste) Regulation 2014 • *State Environmental Planning Policy (Resilience and Hazards) 2021* • *Contaminated Land Management Act 1997* • Contaminated Land Management Regulation 2022 • *Heritage Act 1977* • Heritage Regulation 2012
Guidelines and Specifications	• Due Diligence Code of Practice (DECCW 2010) • Biodiversity Guidelines (Protecting and Managing Biodiversity on RTA Projects) • National Environmental Protection Measure (Assessment of Site Contamination) 1999 (as amended 2013) (National Environment Protection Council 2013) • Waste Classification Guidelines (NSW EPA 2014) • Guidelines for Consultants Reporting on Contaminated Land (NSW EPA, 2020) • Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997 (NSW EPA 2015) • Guidelines for the NSW Site Auditor Scheme, 3rd Edition (NSW EPA 2017) • Guideline for the Management of Contamination (Roads and Maritime Services 2013c) • Environment Protection Authority: Sampling design part 1 - application, Contaminated Land Guidelines (NSW EPA, 2022) • Environment Protection Authority: Sampling design part 2 - interpretation, Contaminated Land Guidelines (NSW EPA, 2022) • Preparing Environmental Management Plans for Contaminated Land (NSW EPA, 2022) • Guidelines for biological survey and mapped data (Commonwealth of Australia, 2018) • Biodiversity Assessment Method (BAM) (DPE 2020) • Skeletal Remains Guidelines for the Management of Human Skeletal Remains under the *Heritage Act 1977* (NSW Heritage Office, 1997) • Assessing Significance for Historical Archaeological Sites and 'Relics' (Heritage Branch of the Department of Planning, 2009) • *Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (OEH 2011)* • *Code of Practice for Archaeological Investigations of Aboriginal Objects in New South Wales (DECCW 2010)* • *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW 2010)*

3.6 Conditions of Approval

Table 3-2: Relevant CoAs (SSI-9406)

CoA No.	Commitment	Section Reference
A17	Prior to the commencement of low impact work, an Unexpected and Incidental Finds Protocol must be developed for: a) threatened species and threatened ecological communities; b) contamination, hazards and contaminated land; c) Aboriginal Cultural Heritage; and d) non-Aboriginal Heritage. The Unexpected and Incidental Finds Protocol must include procedures for: (i) all Work in the associated location to stop to prevent further impact; and (ii) notifying the Planning Secretary and relevant state agencies in writing. Work must not recommence until the relevant state agencies have been consulted and any required approvals have been obtained. The Unexpected and Incidental Finds Protocol must be made publicly available prior to low impact work commencing and must be implemented during low impact work	This Protocol Appendix A Appendix B Appendix C
E143	An Unexpected Heritage Finds and Human Remains Procedure must be prepared to manage unexpected heritage finds in accordance with any guidelines and standards prepared by Heritage NSW and submitted to the Planning Secretary for information before the commencement of Work.	Appendix B
E144	The Unexpected Heritage Finds and Human Remains Procedure, as submitted to the Planning Secretary, must be implemented for the duration of Work. *Note: Human remains that are found unexpectedly during the carrying out of Work may be under the jurisdiction of the NSW State Coroner and must be reported to the NSW Police immediately.*	Appendix B
E161	An Unexpected Finds Procedure for Contamination must: a) be prepared prior to the commencement of Work and must be followed should unexpected contamination or asbestos (or suspected contamination) be excavated or otherwise discovered b) include details of who will be responsible for implementing the unexpected finds procedure and the roles and responsibilities of all parties involved c) be reviewed by the Site Auditor and interim audit advice or a Section B Site Audit Statement provided certifying that the Unexpected Finds Procedure is appropriate d) be provided to the Planning Secretary and the EPA upon request with a copy of the interim audit advice or Section B Site Audit Statement attached e) be implemented throughout work.	Appendix C

3.7 Updated Environmental Mitigation Measures

Table 3-3: Relevant Updated Environmental Mitigation Measures

UEMM No.	Issue	Mitigation Measure	Section Reference
AH-11	Unexpected Finds	An unexpected finds procedure would be developed and included in the Aboriginal cultural heritage management plan to provide a consistent method for managing any unexpected Aboriginal heritage items discovered during construction, including potential heritage items or objects and a flow chart of the procedure on the findings of skeletal remains.	Appendix B
NAH-4	Unexpected finds including human skeletal remains	An unexpected finds procedure would be developed as part of the CEMP to provide a consistent method for managing any unexpected heritage or archaeological items and unexpected human skeletal remains. Non-Aboriginal awareness training (mitigation measure NAH-3) is to include a flow chart of the procedure on the findings of skeletal remains.	Appendix B
SC-7	Contamination Management	A contaminated land and hazardous materials management plan would be prepared and implemented as part of the CEMP. The plan would include but not be limited to: - procedures for incident management and managing unexpected contamination finds (an unexpected finds protocol).	Appendix C

4.0 Implementation

4.1 Training and Inductions

All site personnel (including sub-contractors) will be inducted on the potential for unexpected and incidental finds occurring, or likelihood of occurrence, within the project area and the required process under this Protocol. Training will include inductions, toolbox talks, pre-starts and targeted awareness training as required.

The project induction will include the following mandatory topics:

- How to identify suspected heritage relics and objects, including both Aboriginal and non-Aboriginal materials
- How to identify potential contamination
- How to identify threatened biodiversity
- Provide guidance on how to appropriately respond to unexpected finds
- Guidance on how personnel are to apply the Protocol on how to appropriately manage human remains, including notification and response procedures.

4.2 Roles and Responsibilities

An outline of responsibilities for site personnel relating to unexpected and incidental finds is included in Table 4-1.

Table 4-1: Roles and Responsibilities

Role	Responsibility
Project Manager (JHG)	• Manage project construction and site activities in line with this Protocol • Report environmental matters to the Project Director • Allocate appropriate contractor resources to meet environmental requirements • Plan and schedule construction while ensuring compliance with regulatory legislation and Protocol • Ensure site personnel are informed of changes to this Protocol e.g. via toolboxes and pre-starts • Notify ARTC/IRPL of incidents that have occurred including near misses • Notify the relevant regulatory agencies where JHG has hold the licence and permit
Environmental and Sustainability Manager	• Assisting Site Supervisor with the implementation of this Protocol • Liaise with specialist consultants and ARTC/IRPL (as directed by Project Manager) • Notify Site Supervisor and or Project Manager of incidents as required

	• Complete incident investigation and reporting (where required) • Updates to this Protocol and management plans (where required) and any changes are communicated to the Project Team.
Site Supervisors (JHG)	• Oversee on-site project management and control • Ensure that the Protocol and procedures are communicated to all site personnel under their management and are being fully implemented on site e.g. via attendance to site inductions, toolboxes and pre-starts • Ensure site personnel are informed of changes to this Protocol e.g. via toolboxes and pre-starts • Stop work as required • Delineate the area • Contact Environmental Manager and Project Manager • Manage access into and out of the site
Environmental Representative (ER)	• Provide environmental advice to the Project management team to assist them with achieving compliance with this Protocol • Undertake regular site inspections to ensure activities are adhering to this Protocol • As considered necessary, recommend to the Proponent any improvements that may be made to work practices to avoid or minimise adverse impacts to the environment and to the community • Monitor the implementation of the Unexpected Finds Protocol to ensure implementation is undertaken in accordance with the terms of the approval
Specialist consultants – Ecologist, Archaeologist, Contaminated Land Expert.	• Advise on the nature of any find, including whether it should be considered “unexpected” in terms of the Planning Approval • Indicate the required exclusion area or “no-go” zone for any nearby works • Advise on any controls that should be put in place to manage the find and the likely impact from the proposed work • Develop any required management plan (or equivalent) for the management of any unexpected find. • Call on other technical specialists as required to assist in any identification and management of the unexpected find. • Assist in the completion of any required notifications in consultation with the Project Environment Team

	• Notify RAPs and LALC's in the event of an unexpected find associated with Aboriginal Heritage or suspected Aboriginal remains.
Site Auditor (Contamination)	• A Site Auditor(s) is to oversee the management of contamination issues. • The Site Auditor is to review all documentation relevant to contamination, including previous site audits, and provide a written opinion on the contamination risk and the appropriateness of the reports and any proposed management measures of the site, including (but not limited to): • the management and monitoring plans in Conditions C12 and C17, where relevant, including any updates or amendments to those plans; • Sampling and Analysis Quality Plan in Condition E154; • Detailed Site Investigation Report(s) in Condition E155; • Remedial Action Plans in Condition E156; • Unexpected Finds Procedure for Contamination in Condition E161; and • Post-remediation validation reports.
Construction Personnel	• Complete an environmental induction before accessing the site • Comply with legislative requirements • Stop work in the event of an unexpected find • Report all unexpected finds or human remains, environmental incidents or potential hazards to area supervisor • Follow environmental plans, protocols and procedures
ARTC / IRPL	• Make notifications to the Planning Secretary under the terms of the MCoA A34 and A35. • Notify and liaise between relevant government agencies in the event that an impact has occurred or is likely to occur in relation to the unexpected find. • Provide written approval to recommence work (as required) • IRPL will need to report any unexpected find identified in accordance with ARTC /IRPL Approvals. • Where an event occurs within the ARTC rail corridor and JHG is operating under the ARTC EPL the event must be reported to both ARTC and IRPL
UGL Regional Link (CRN)	• Where an event occurs within the UGL Regional Link rail corridor and JHG is operating under the UGL Regional Link EPL the event must be reported to both UGL Regional Link and IRPL

4.3 Emergency Contacts

A list of key emergency contacts is provided in Table 4-2.

Table 4-2: Emergency Contacts

Emergency Contact	Contact Details	When to contact
Environment Protection Authority (EPA)	131 555	In the event of confirmed contamination
Department of Planning, Housing and Infrastructure	1300 305 695	In the event of an environmental incident resulting in environmental contamination or harm
Department of Climate Change, Energy, the Environment and Water (Cth)	1800 920 528	In the event of a discovery of actual or potential impacts to Commonwealth listed threatened communities or species.
Biodiversity Conservation Science Division	1300 992 688	In the event of confirmed threatened species and/or TEC
SafeWork NSW	131 050	In the event of confirmed contamination
RSPCA / WIRES	1300 094 737	To report injury to wildlife
Heritage NSW	(02) 9873 8500	In the event of confirmed heritage item or suspected human remains
NSW Enviro Line	131 555	In the event of unexpected finds or suspected heritage finds or human remains
NSW Police	(02) 6922 2599 (Wagga Wagga District Command) 000 (emergency only)	In the event of suspected human remains

4.4 Review

This Protocol will be reviewed as needed in response to an unexpected find, audit finding, incident or near miss.

Appendix A - Unexpected Finds Procedure - Biodiversity

Introduction

This procedure describes how to manage unexpected finds associated with threatened flora species, fauna species and/or Threatened Ecological Community (TEC) during works. This procedure has been prepared to meet the requirements of the Conditions of Approval, particularly CoA A17.

This Procedure is applicable to any physical work for the purpose of the CSSI including construction and low impact work (LIW) but not including operational maintenance work, and will support the Construction Environmental Management Plan (CEMP) and relevant Sub-Plan.

Relevant Legislation and Guidelines

Legislation and guidelines relevant to this procedure are detailed in Section 3.5.

Reporting

A record of the unexpected finds will be maintained by the Contractor and will include the following details as a minimum:

- Date, time, and location of unexpected find
- Details of discovery site (GPS points, description of vegetation, soil types, microhabitat and/or any other features present)
- Photographs of items observed
- Details regarding assessment by the Environmental and Sustainability Manager (and advice from suitably qualified ecologist or specialist)
- Actions undertaken before work recommenced
- Relevant sign off on approval to recommence works.

If an Unexpected Find is also an incident as defined the MCoA, all Incident Notification and Reporting must follow SSI -9406 CoA A34 & A35 and EPBC 2018/8233 CoA 35 & 36 (where required) including the requirements set out in Appendix A of the Infrastructure Approval SSI-9406.

Unexpected Finds Procedure- Biodiversity

In the event an unexpected, threatened flora or fauna species or TEC is encountered during works, the procedure outlined below must be followed.

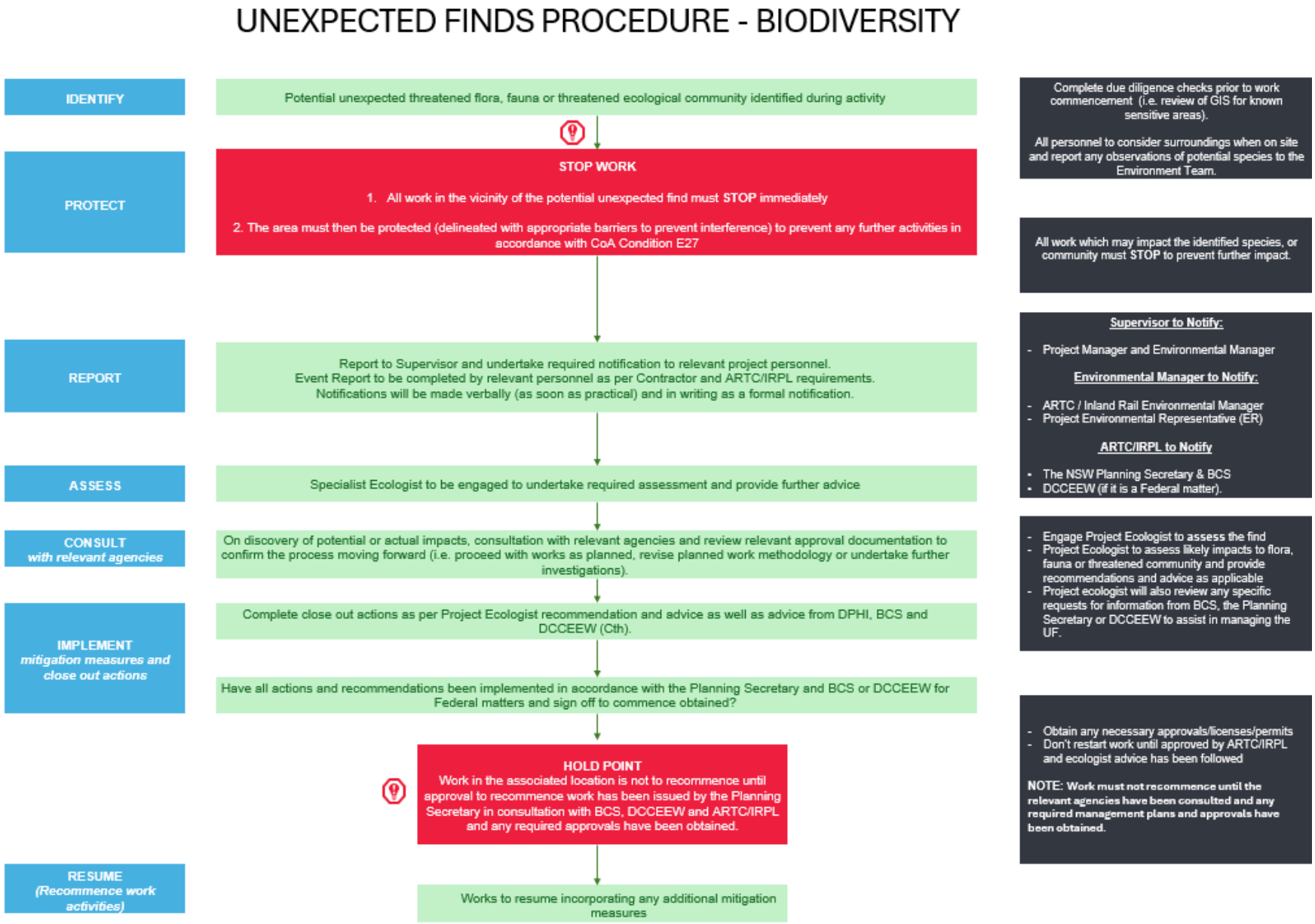


Figure A1: Unexpected Finds Procedure, Biodiversity

JOHN HOLLAND

UNEXPECTED FINDS

Behind the Dunny Door Series

WHAT IS IT

An unexpected find is the discovery of any previously unidentified or otherwise unforeseen item during planning such as threatened flora, fauna or Threatened Ecological Communities, whilst completing activities.

WHY ARE THEY IMPORTANT

- Harmful to your health or others
- Harmful to the environment
- Culturally significant
- A potential crime scene
- Regulated / Legally Protected

IF YOU MAKE AN UNEXPECTED FIND

STOP WORK

- Don't touch or move it
- Alert supervisor and the Environmental / Safety Team
- Refrain from work until instructed by team
- Implement suitable risk controls to deliniate find

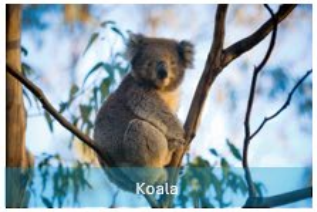
IF YOU BELIEVE YOU HAVE MADE AN UNEXPECTED FIND, PLEASE TELL YOUR SUPERVISOR/LEADING HAND IMMEDIATELY

EXAMPLES OF THREATENED SPECIES THAT MAY BE ENCOUNTERED:


Grey-headed Flying Fox


Regent Honeyeater


Swift Parrot


Koala


Spotted-tail Quoll


Corben's Long-eared Bat


Crimson Spider Orchid


Pink-tailed Worm Lizard


Tarengo Leek Orchid


Yellow-box (TEC)


White box (TEC)


Blakey's Red-gum (TEC)


Western Grey-box (TEC)

Figure A2: Unexpected Finds, Biodiversity

Appendix B - Unexpected Finds Procedure – Heritage and Human Remains

Introduction

This procedure describes how to manage unexpected encounters associated with both Aboriginal and non-Aboriginal heritage items, as well as suspected human remains, during works. This procedure has been prepared to meet the requirements of the CoA, specifically CoA A17, E143 and E144 and environmental mitigation measures AH-11 and NAH-4.

This Procedure is applicable to any physical work for the purpose of the CSSI including construction and low impact work (LIW) but not including operational maintenance work and will support the Construction Environmental Management Plan (CEMP) and relevant Sub-Plan.

In accordance with section 3.2 and CoA C23(f), this document has been prepared by suitably qualified person with over 20 years' experience in the field of Aboriginal and Non-Aboriginal Heritage. These person/s have experience on similar projects to that of I2S and hold the relevant qualifications (Bachelor of Archaeology and Pre-History, with Honours) required to act as SQE's in the making and endorsement of this document.

Relevant Legislation and Guidelines

Legislation and guidelines relevant to this procedure are detailed in Section 3.5.

Reporting

A record of the unexpected finds will be maintained by the Contractor (in accordance with Appendix A of the SSI- 9406) and will include the following details:

- Date, time, location, written description and photographic evidence of the unexpected find
- Details regarding assessment by the Environment and Sustainability Manager (and advice from suitably qualified heritage specialist and/or archaeologist)
- Actions undertaken before work recommenced
- Relevant sign off on approval to recommence works.

If an Unexpected Find is also an incident as defined the MCoA, all Incident Notification and Reporting must follow CoA A34 and A35 including the requirements set out in Appendix A of the Infrastructure Approval SSI-9406.

Unexpected Finds Procedure – Heritage and Human Remains

Figure B1 below provides an overview of the procedure to be implemented in the event that any newly observed cultural material or suspected human remains are identified during the LIW and construction phases of the project. Figures B2 and B3 provide a detailed breakdown of steps to be undertaken in the event a potential Heritage items or suspected human remains are uncovered during work.

The recording of the item(s) and any proposed mitigation measures must be completed by a heritage specialist with participation of the Registered Aboriginal Party (RAP) and/or Local Aboriginal Land Council (LALC) representatives and Heritage NSW (where appropriate). Avoidance of newly identified Aboriginal objects is always the preferred heritage outcome where feasible. Mitigation measures will be employed to ensure that impacts are avoided or where it can be reasonably demonstrated that avoidance is not possible that mitigation measures will be put in place to reduce impacts as much as possible. All sites that cannot be avoided must be assessed for their archaeological significance prior to impacts in accordance with best practice heritage guidelines.

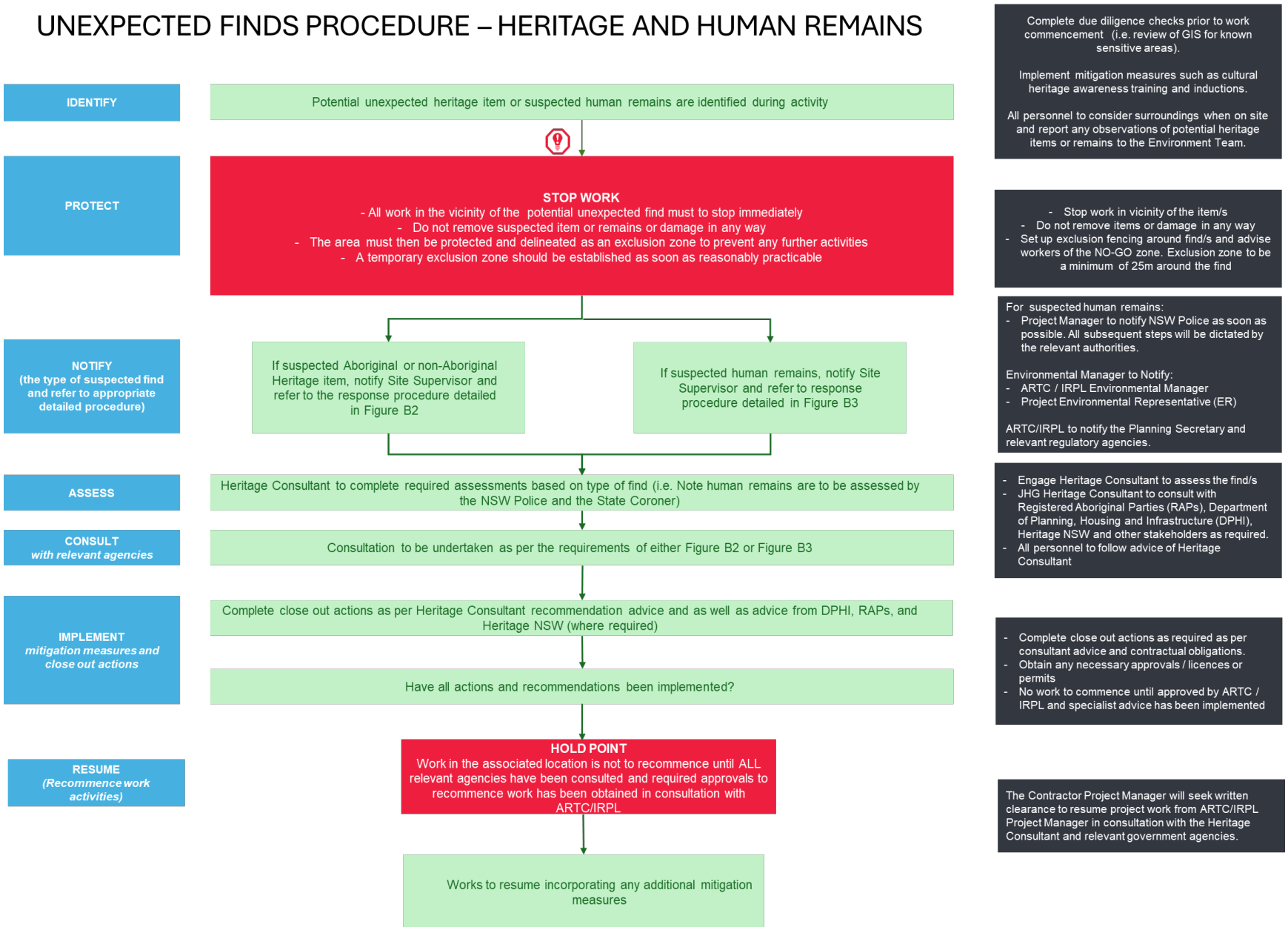


Figure B1 Unexpected Finds Procedure – Heritage and Human Remains

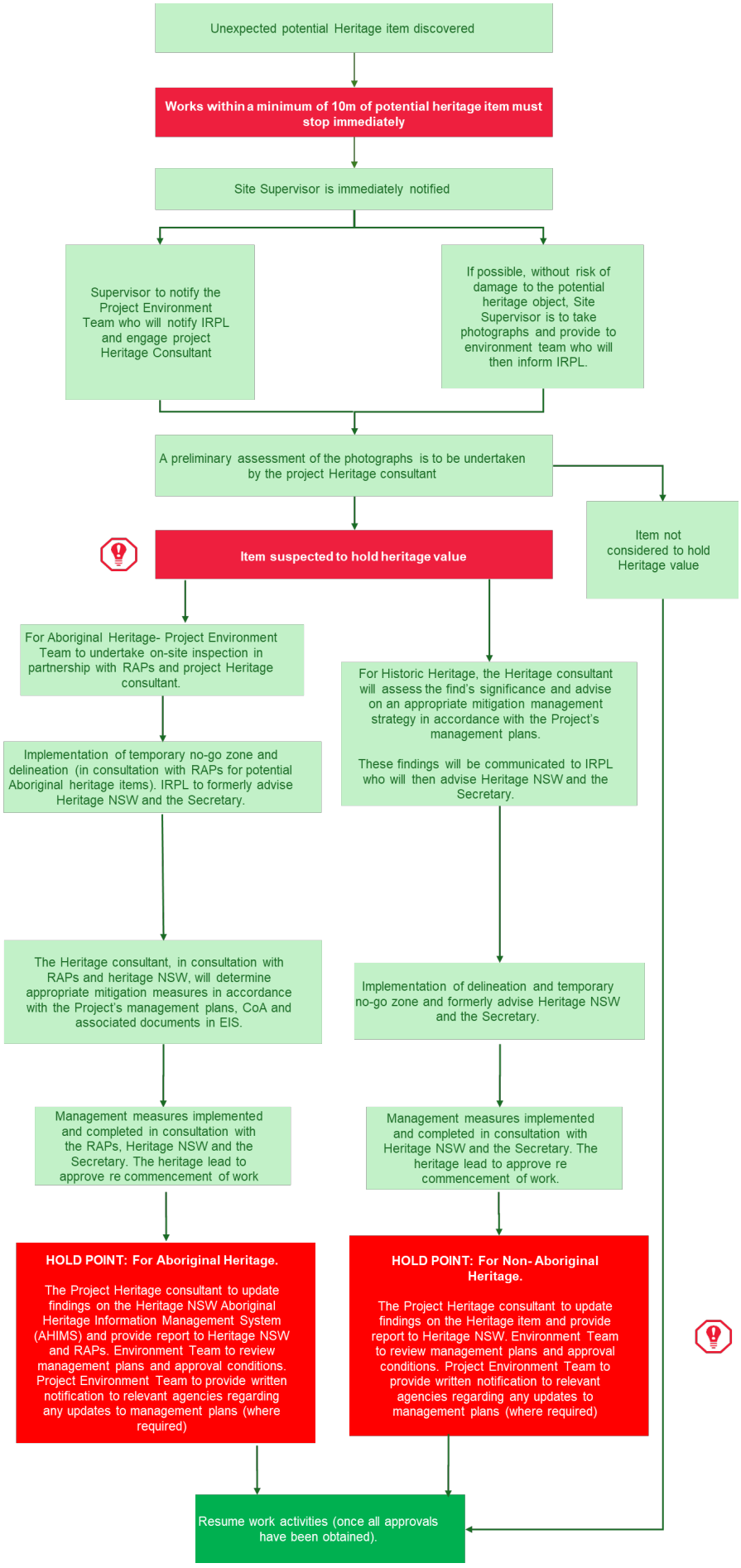


Figure B2 Unexpected Finds Procedure – Heritage Item

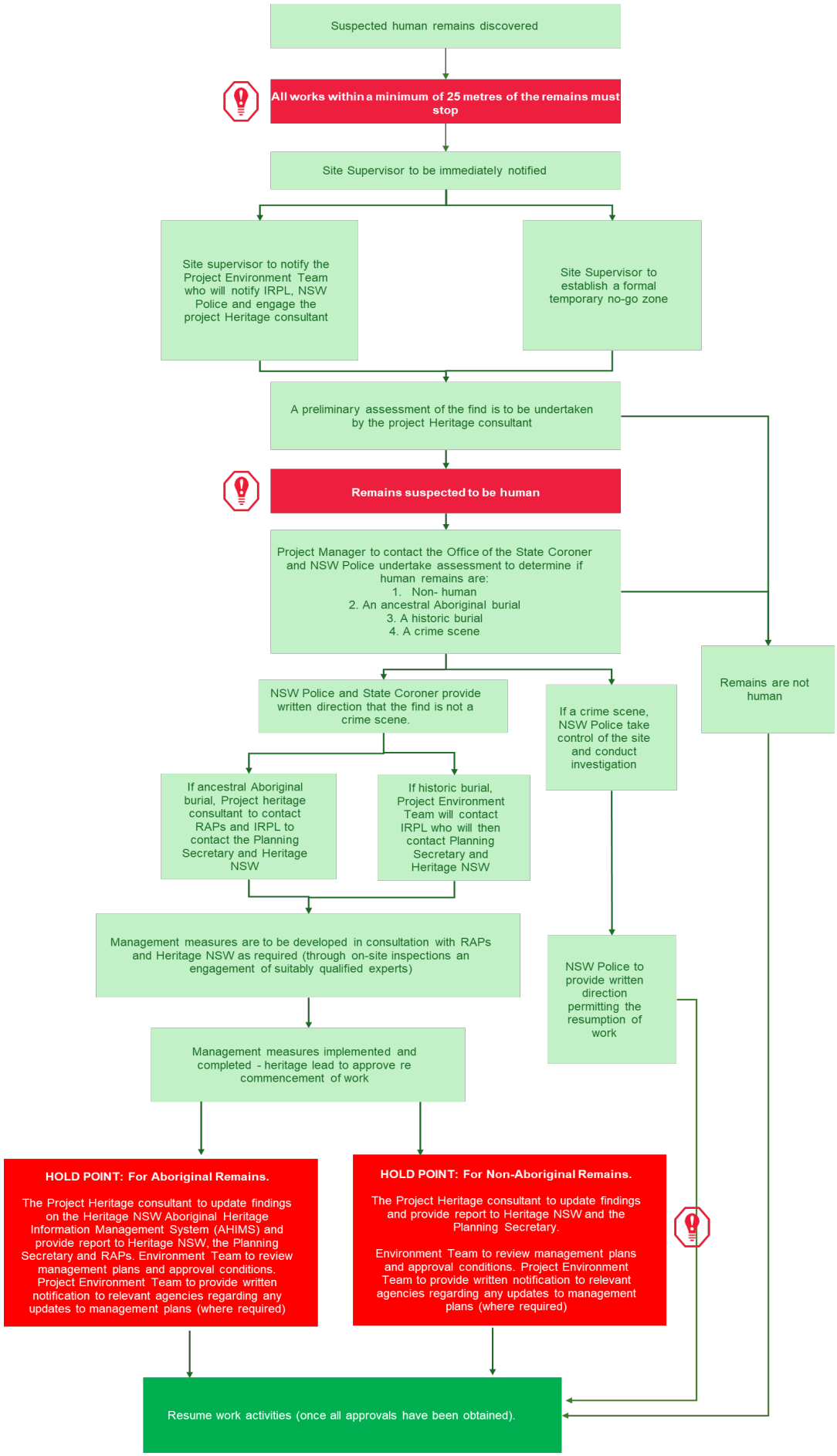


Figure B3 Unexpected Finds Procedure – Human Remains



Figure B4: Unexpected Finds, Heritage

Appendix C - Unexpected Finds Procedure – Contamination

Introduction

This procedure describes how to manage unexpected encounters of land that contains (or is suspected of containing) substances that are actually (or potentially) hazardous to health or the environment.

Contaminants may include:

- Hydrocarbons
- Per- and polyfluoroalkyl substances (PFAS)
- Polycyclic aromatic hydrocarbons (PAHs)
- Polychlorinated biphenyls (PCBs)
- Pesticides
- Heavy metals such as lead, arsenic, cadmium and mercury
- Asbestos containing material (ACM)
- Biologically pathogenic materials and waste
- Acid sulphate soils (ASS).

This procedure has been prepared to meet the requirements of the CoA, specifically CoA A17 and E161 and environmental mitigation measure SC-7.

This Procedure is applicable to any physical work for the purpose of the CSSI including construction and low impact work (LIW) but not including operational maintenance work, and will support the Construction Environmental Management Plan (CEMP) and relevant Sub-Plan.

Relevant Legislation and Guidelines

Legislation and guidelines relevant to this procedure are detailed in Section 3.5.

Reporting

A record of the unexpected contamination finds will be maintained by the Contractor and will include the following details as a minimum:

- Date, time, location and photographic evidence of unexpected find, including depth
- Details regarding assessment by Environment Manager (and advice from suitably qualified contamination specialist)
- Where remediation of the contamination is recommended by the contamination specialist and supported by the contaminated site auditor, details on the remediation will be captured and reported in accordance with the *Contaminated Land management Act* and Conditions E151-160.
- All waste will be tracked in accordance with the *Protection of the Environment Operations Act 1997 (POEO Act)* and Condition E165-166. Transport and disposal undertaken in accordance with the Protection of the Environment Operations (Waste) Regulation 2005

and the Waste Classification Guidelines (EPA 2014). All contractors transporting waste from the site must be licenced to transport the identified type of waste and must only dispose of the waste at a facility that is licenced to accept the waste classification and volume.

If an Unexpected Find is also an incident as defined the MCoA, all Unexpected Find is also an incident as defined the MCoA, all Incident Notification and Reporting must follow CoA A34 and A35 including the requirements set out in Appendix A of the Infrastructure Approval SSI-9406.

Unexpected Finds Procedure – Contamination, Hazards and Contaminated Land

In the event an unexpected contamination find is encountered during works, the procedure outlined below must be followed. The Unexpected Finds Procedure for Contamination, Hazards and Contaminated Land (see Appendix C) must be included and implemented throughout works and construction.

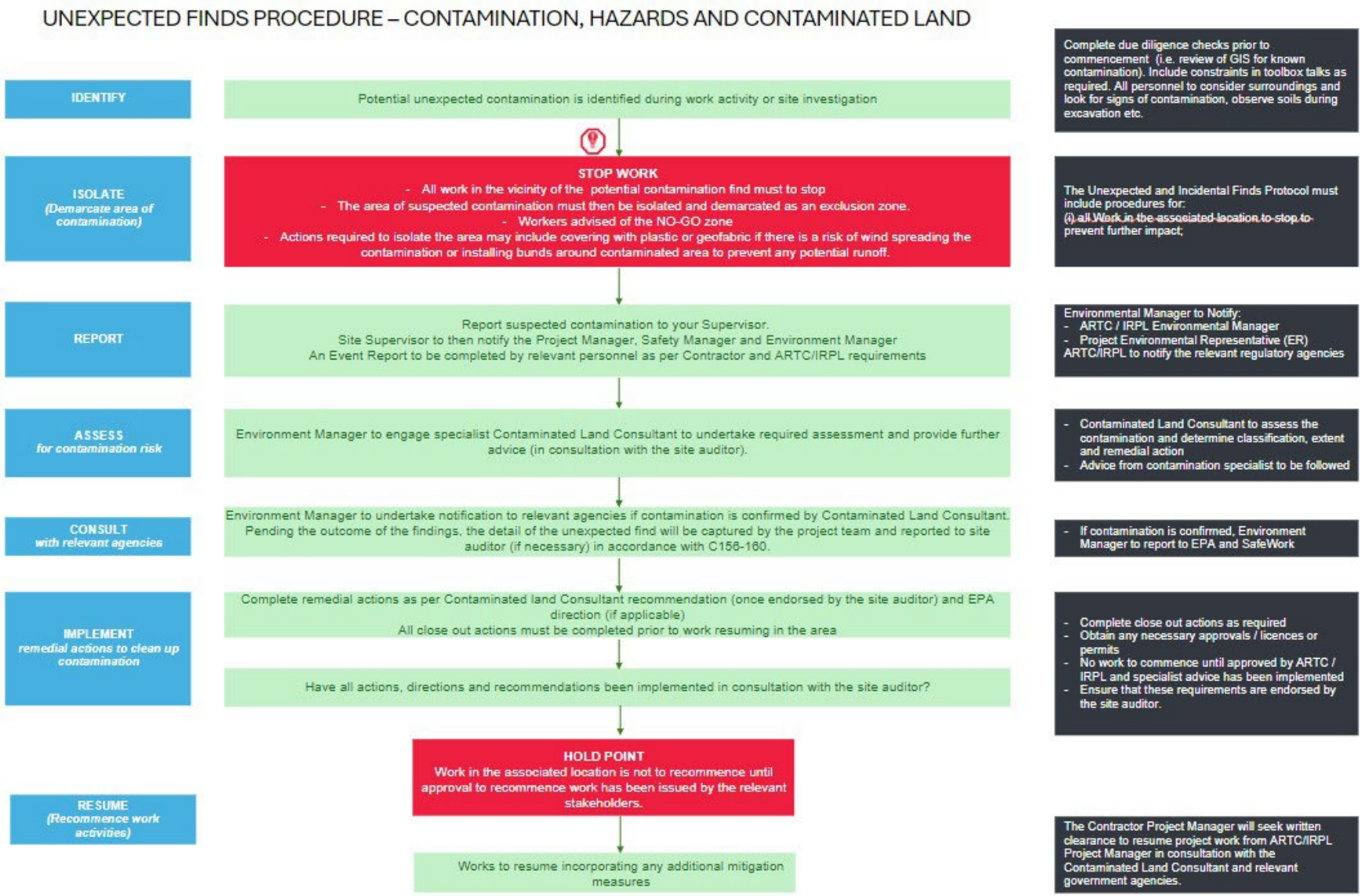


Figure C1: Unexpected Finds Procedure, Contaminated Land

JOHN HOLLAND

UNEXPECTED FINDS

Behind the Dunny Door Series

WHAT IS IT

An unexpected find is the discovery of any previously unidentified or otherwise unforeseen item during planning, such as contamination

WHY ARE THEY IMPORTANT



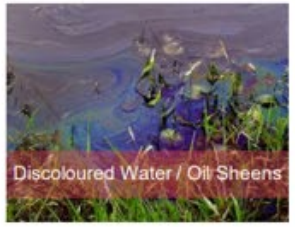
IF YOU MAKE AN UNEXPECTED FIND



IF YOU BELIEVE YOU HAVE MADE AN UNEXPECTED FIND, PLEASE TELL YOUR SUPERVISOR/LEADING HAND IMMEDIATELY

EXAMPLES OF CONTAMINATION THAT MAY BE ENCOUNTERED:















Unexpected finds can include but not limited to as being:

- Distinctively different to other soils on-site – both in texture, colour, smell and moisture content
- Underground tanks and structures (e.g. former fuel tanks)
- Appear to be concentrated to a localised area (i.e. waste burial pits)
- Stained, oil soaked or containing a petroleum sheen.
- Includes other products such as batteries etc.
- May contain offensive odours, including sulphur-based leachate impacts or sewerage, including acid sulfate soils
- Buried building products and debris/waste or other anthropogenic materials
- May contain potential asbestos containing materials
- May contain buried animal carcasses or evidence of decomposition including potential remains.

Figure C2: Unexpected Finds, Contamination

Appendix D - Interim Audit Advice

3 December 2024

John Holland Pty Ltd
Level 5, 15 Bourke Road
Mascot, NSW, 2020

Ref: E081

Attention: Hugh Goymour

Sent via Email: Hugh.Goymour@jhg.com.au

Dear Hugh,

Re: Interim Audit Advice – Illabo to Stockinbingal (I2S) Inland Rail Unexpected Finds Procedure for Contamination

Introduction

I have been engaged by John Holland Pty Ltd to conduct a site audit of the above site in accordance with the NSW Contaminated Land Management Act 1997.

The Illabo to Stockinbingal Inland Rail Project (I2S) is a new section of rail corridor (42.5km) connecting Illabo to Stockinbingal in NSW. The project forms part of the national Inland Rail program to deliver a direct interstate freight rail corridor between Melbourne and Brisbane via central -west NSW and Toowoomba Qld.

The I2S includes installation of 39km of new single track, removal of redundant sections of track and upgrade of existing track for tie-in points to the existing rail at Illabo and Stockinbingal, a crossing loop and maintenance siding of around 2.2 km long and track turn-outs at eight locations.

The project is state significant infrastructure (SSI-9406) and has been assessed under section 5.13 of the Environmental Planning and Assessment Act 1979 (EP&A Act), requiring an environmental impact statement[1] (EIS). Approval was issued by the Minister for Planning and Public Spaces on 4 September 2024 subject to conditions of which Conditions E151-161 relate to contamination.

The conditions of approval (E161) require an unexpected finds procedure for contamination (UFPfC) to be prepared and implemented prior to commencement of work. The condition also states that the UFPfC must be reviewed and approved by a site auditor.

This interim audit advice letter (IAA) has been prepared to provide my written opinion on the appropriateness of an unexpected finds procedure for contamination (UFPfC).

Scope

I have been provided with the following document:

- I2S | Unexpected and Incidental Finds Protocols and Procedures. Environmental Management Document 5-0019-220-PES-00-PR-0001. Inland Rail I2S Project/John Holland.

The Unexpected and Incidental Finds Protocol has been developed to detail actions to be taken should unexpected or incidental finds occur in relation to (1) threatened species or threatened ecological communities, (2) contaminated hazards or contaminated land, and (3) aboriginal cultural heritage and non-aboriginal heritage and human remains.

[1] Illabo to Stockinbingal Environmental Impact Statement (EIS) (ARTC/Inland Rail). Dated 29 August 2022.

Envirocene Pty Ltd
ABN: 82 621 176 163 • ACN: 621 176 163

Level 2, 29 Kiora Road, Miranda NSW 2228
P: 0402 142050 • E: jevans@envirocene.com.au
www.envirocene.com.au

It is reasonable and practical to combine the various unexpected finds procedures into one document, however, my review and conclusions documented in this IAA apply only to aspects of the document relating to contamination, referred to as the UFPfC, included as Appendix C to the above document.

The UFPfC was reviewed in conjunction with the following:

- EIS Technical Paper 14 – Contaminated Land Assessment. Ref: 2-0001-220-EEC-00-RP-0003.
- EIS Chapter 20: Soils and Contamination.
- I2S Mitigation Measures (April 2024)
- Conditions of Approval for Inland Rail – Illabo to Stockinbingal SSI-9406.

Summary of the UFPfC

The UFPfC provides examples of indicators of contamination that may typically be encountered that may not have been identified during the contaminated land assessment. These include:

- Distinctively different to other soils on-site – both in texture, colour, smell and moisture content
- Underground tanks and structures (e.g. former fuel tanks)
- Appear to be concentrated to a localised area (i.e. waste burial pits)
- Stained, oil soaked or containing a petroleum sheen.
- Other products such as batteries etc.
- May contain offensive odours, including sulphur-based leachate impacts or sewage, including acid sulfate soils
- Buried building products and debris/waste or other anthropogenic materials
- May contain potential asbestos containing materials
- May contain buried animal carcasses or evidence of decomposition including potential remains.

The UFPfC instructions are to

1. Stop work.
2. Cordon off the area.
3. Engage contaminated land consultant to deal with the relevant issue (in consultation with the site auditor).
4. Complete remedial actions as recommended by environmental consultant (and as endorsed by site auditor).

The UFPfC also lists requirements for managing waste encountered during unexpected finds management.

The overarching *Unexpected and Incidental Finds Protocols and Procedures* identifies roles and responsibilities for implementation of the UFPfC and of particular note is the requirement for site supervisors to "*ensure that the Protocol and procedures are communicated to all site personnel under their management and are being fully implemented on site e.g. via attendance to site inductions, toolboxes and pre-starts*."

The UFPfC will be implemented for the duration of the low impact works and by inclusion in the CEMP for construction.

Auditor Opinion

An unexpected finds protocol is a relatively straightforward set of instructions that set out the actions to be undertaken under certain circumstances. In this case, the UFPfC forms an integral part of both the low impact work and the construction (by inclusion in the CEMP), and is based on observations of contamination such as visible ACM, underground tanks, staining/odours etc.. If properly executed, it should lead to the appropriate management of unexpected finds of contamination. The key to successful implementation is ensuring on-site staff are trained in identifying these issues and are aware of the UFPfC.

The project site is predominantly greenfield although some low to moderate potential areas of environmental concern (AEC) have been identified along the project site. These areas will be subject to investigation (Item SC-4 of the Mitigation Measures) and the UFPfC does not supersede the requirement for site investigations within these AEC, rather it will complement the site investigation process and once investigations are complete, will continue to be implemented during construction by inclusion in the CEMP.

Conclusion

I confirm that I have reviewed the UFPfC and in the context of the I2S project, find this to be appropriate.

* * *

Consistent with the NSW EPA requirement for staged 'signoff' of sites that are the subject of progressive assessment, remediation, and validation, I advise that:

- This advice letter does not constitute a Site Audit Report or Site Audit Statement and does not pre-empt the conclusions that will be made at the conclusion of the site audit process.
- At the completion of the audit, I will provide a Site Audit Statement and supporting documentation.
- This interim audit advice will be documented in the Site Audit Report.

Yours faithfully,
Envirocene Pty Ltd



Julie Evans
NSW EPA Accredited Site Auditor 1003

Appendix A11 – Workforce Code of Conduct

The Workforce Code of Conduct is available on the Project website – https://inlandrail.com.au/illabo-to-stockinbingal-workforce-code-of-conduct/