

Infrastructure approval

Section 5.19 of the *Environmental Planning & Assessment Act 1979*

I grant approval to the carrying out of the critical State significant infrastructure (CSSI) referred to in Schedule 1, subject to the conditions in Schedule 2.

The Hon. Anthony Roberts MP
Minister for Planning

Sydney

21/2/2023

The Department has prepared a consolidated version of the approval which is intended to include all modifications to the original determination instrument.

The consolidated version of the approval has been prepared by the Department with all due care. This consolidated version is intended to aid the approval holder by combining all approvals relating to the original determination instrument but it does not relieve an approval holder of its obligation to be aware of and fully comply with all approval obligations as they are set out in the legal instruments, including the original determination instrument and all subsequent modification instruments.

SCHEDULE 1

Application no.:	SSI-9487
Proponent:	Australian Rail Track Corporation
Approval Authority:	Minister for Planning
Land:	Land between Narromine and Narrabri
Description of Critical State Significant Infrastructure:	Development for the purposes of the Inland Rail – Narromine to Narrabri proposal being the construction and operation of approximately 306 kilometres of new single-track standard gauge railway to accommodate trains with a maximum length of 1,800m. Key features of the proposal include: • Connection to other rail lines, including Inland Rail Parkes to Narromine, Inland Rail Narrabri to North Star, Dubbo to Coonamble, Narromine West connection and Narrabri to Walgett • Crossing loops at Burroway, Balladoran, Armatree/Tonderburine, Mt Tenandra, Baradine, The Pilliga and Bohena Creek; • Level crossings; • Bridges over rivers and other watercourses, floodplains and roads; • Road realignments at various locations, including realignment of the Pilliga Forest Way for a distance of 6.7 kilometres, and limited road closures; • Ancillary infrastructure to support the proposal, inclusive of signalling and communications; drainage, drainage control areas, signage and fencing, and services and utilities; and • Construction infrastructure, including ancillary facilities, borrow pits and temporary workforce accommodation facilities.
Declaration as Critical State Significant Infrastructure:	The proposal is critical State significant infrastructure by virtue of Schedule 5, clause 7(2A) of <i>State Environmental Planning Policy (Planning Systems) 2021</i>.

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SUMMARY OF MODIFICATIONS

Application Number	Determination Date	Decider	Modification Description
SSI-9487-MOD-1	19 April 2024	Director	Changed the time-based requirements for Conditions E56 Erosion Threshold Velocities Report and E111 Arrow Travelling Stock Reserve Alternative Arrangements and other administrative changes.
SSI-9487-MOD-2	1 October 2025	Director	Biodiversity Credit review and reduction

Table of Contents

SCHEDULE 1	2
TERMS AND DEFINITIONS	6
SUMMARY OF REPORTING AND APPROVAL REQUIREMENTS	12
SCHEDULE 2	16
PART A	16
ADMINISTRATIVE CONDITIONS	16
GENERAL	16
NOTIFICATION OF COMMENCEMENT	17
TIMING AND APPROVALS	17
STAGING	17
LOW IMPACT WORK	19
ANCILLARY FACILITIES	19
TEMPORARY WORKFORCE ACCOMMODATION FACILITIES	19
SITE ESTABLISHMENT WORK	20
INDEPENDENT APPOINTMENTS	22
ENVIRONMENT REPRESENTATIVE	22
ACOUSTICS ADVISOR	23
SOCIAL ADVISOR	24
COMPLIANCE REPORTING	25
AUDITING	25
INCIDENT NOTIFICATION AND REPORTING	26
NON-COMPLIANCE NOTIFICATION	26
PART B	27
COMMUNITY INFORMATION AND REPORTING	27
COMMUNITY INFORMATION, CONSULTATION AND INVOLVEMENT	27
COMPLAINTS MANAGEMENT SYSTEM	28
PART C	31
CONSTRUCTION ENVIRONMENTAL MANAGEMENT	31
CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN	31
CONSTRUCTION MONITORING PROGRAMS	35
PART D	37
OPERATIONAL ENVIRONMENTAL MANAGEMENT	37

CONSOLIDATED APPROVAL

OPERATIONAL ENVIRONMENTAL MANAGEMENT	37
OPERATIONAL MONITORING PROGRAMS	37
PART E	40
KEY ISSUE CONDITIONS	40
NOISE AND VIBRATION	40
BIODIVERSITY	45
FLOODING	49
WATER QUALITY AND DRAINAGE	58
GROUNDWATER	60
TRAFFIC, TRANSPORT AND ACCESS	62
SOCIAL IMPACTS	67
CODE OF CONDUCT	68
BUSHFIRE MANAGEMENT	68
SPOIL MOUNDS	69
VISUAL AMENITY AND LANDSCAPE IMPACTS	70
HERITAGE	71
LAND USE AND PROPERTY	73
SUSTAINABILITY	73
SOILS	73
AIR QUALITY	74
WASTE	74
APPENDIX A WRITTEN INCIDENT NOTIFICATION AND REPORTING REQUIREMENTS	76
APPENDIX B BIODIVERSITY	77
SCHEDULE 1 BIODIVERSITY CREDIT REQUIREMENTS	77
APPENDIX C FLOODING QUANTITATIVE DESIGN LIMITS AND MODELLING REQUIREMENTS	91
SCHEDULE 1 QUANTITATIVE DESIGN LIMITS	91
SCHEDULE 2 FLOOD MODELLING SPECIFICATIONS	94

TERMS AND DEFINITIONS

The definitions and abbreviations in **Table 1** apply to terms used in this approval, unless otherwise stated or the context indicates otherwise.

Table 1: Terms and Definitions

Term	Definition
1% AEP	1% Annual Exceedance Probability - This is an event defined as having a one percent chance of occurring or being exceeded in any one year.
AA	The Acoustics Advisor for the CSSI approved by the Planning Secretary.
Acquisition of land / acquire land	The same meaning as defined in the <i>Land Acquisition (Just Terms) Compensation Act 1991</i> (NSW)
Aboriginal object or Aboriginal place	The same meaning as defined in the <i>National Parks and Wildlife Act 1974</i> (NSW).
Accommodation facility	The facility being established as part of the CSSI to house construction personnel. Also referred to as a construction camp in various documents.
Affected parties	Affected parties include land and property owners, infrastructure owners, the relevant council(s), and state and Commonwealth agencies, etc
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. <i>Note: Where a CEMP has been approved by the Planning Secretary and it includes a stockpile management protocol, a temporary material stockpile located within the construction boundary is not considered to be an ancillary facility.</i>
AEP	Annual Exceedance Probability – The probability that a given rainfall total accumulated over a given duration will be exceeded in any one year
AHD	Australian Height Datum
ANZECC	Australian and New Zealand Environment and Conservation Council
ARI	Average Recurrence Interval – The average, or expected, value of the periods between exceedances of a given rainfall total accumulated over a given duration.
At-property treatment	Includes courtyard walls and building treatments. Building treatments may include but are not limited to ventilation, acoustic blinds / curtains, glazing, window and door seals, sealing of vents or underfloor areas, shutters and secondary glazing. <i>Note: the At Receiver Noise Treatment Guidelines (Roads and Maritime Services, 2017) provides more examples of building treatments</i>
BCS	Biodiversity, Conservation and Science Division of the Environment and Heritage Group of the Department of Planning and Environment
CALD	Culturally and Linguistically Diverse
CEMF	Construction Environmental Management Framework

CONSOLIDATED APPROVAL

Term	Definition
CEMP	Construction Environmental Management Plan as defined in Conditions C1 and C2 .
CMP	Construction Monitoring Program
Completion of construction	The date upon which all construction is completed and all requirements of the Planning Secretary (if any) have been met. If construction is staged, completion of construction is the date upon which construction is completed and all requirements of the Planning Secretary (if any) have been met, in respect of all stages of construction.
Conditions of approval	The Minister's conditions of approval for the CSSI (this document).
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.
Construction Boundary	The area physically affected by work as described in the documents listed in Condition A1
Consultation	Actively engaging with, and considering the views of, the affected community and the relevant council(s) and state agencies to manage potential project impacts. Consultation is not limited to one-way notification about the CSSI. This definition must inform the Communication Strategy required under Condition B1 .
CPHR	Conservation Programs, Heritage and Regulation division of the Department of Climate Change, Energy, the Environment and Water (NSW) (DCCEEW(NSW)) formerly known as the Biodiversity, Conservation and Science Directorate of the Department of Climate Change, Energy, the Environment and Water (NSW) (DCCEEW(NSW))
CSSI	The critical State significant infrastructure, as generally described in Schedule 1, the carrying out of which is approved under the terms of this approval.
CWMS	Construction Work Method Statement
DCCEEW	Commonwealth Department of Climate Change, Energy, the Environment and Water.
Department, DPE	NSW Department of Planning and Environment
DEC	Former NSW Department of Environment and Conservation
DECC	Former NSW Department of Environment and Climate Change
DPIE	Former NSW Department of Planning, Industry and Environment
EHG	Environment and Heritage Group of the Department of Planning and Environment
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
Environment	Includes all aspects of the surroundings of humans, whether affecting any human as an individual or in his or her social groupings.

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Term	Definition
Environmental Representative Protocol	The document of the same title published by the Department dated October 2018.
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPA	NSW Environment Protection Authority
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Commonwealth)
EPL	Environment Protection Licence under the <i>Protection of the Environment Operations Act 1997</i> (NSW)
ER	The Environmental Representative(s) for the CSSI approved by the Planning Secretary.
FCNSW	Forestry Corporation NSW
Heavy Vehicle	Has the same meaning as in the <i>Heavy Vehicle National Law (NSW)</i>
Heritage item	A place, building, structure, work, relic, archaeological site, tree, movable object or precinct of heritage significance, that is listed under one or more of the following registers: the State Heritage Register under the <i>Heritage Act 1977</i> , a state agency heritage and conservation register under section 170 of the <i>Heritage Act 1977</i> , an environmental planning instrument under the EP&A Act, the World, National or Commonwealth Heritage lists under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (Commonwealth), and an Aboriginal object or Aboriginal place as defined in section 5 of the <i>National Parks and Wildlife Act 1974</i> .
Heritage NSW	Heritage NSW, Department of Planning and Environment
Highly noise affected	As defined in the <i>Interim Construction Noise Guideline</i> (DECC, 2009)
Highly noise intensive work	Work which is defined as annoying under the <i>Interim Construction Noise Guideline</i> including: (a) use of 'beeper' style reversing or movement alarms, particularly at night-time; (b) use of power saws, such as used for cutting timber, rail lines, masonry, road pavement or steel work; (c) grinding metal, concrete or masonry; (d) rock drilling; (e) line drilling; (f) vibratory rolling; (g) bitumen milling or profiling; (h) jackhammering, rock hammering or rock breaking; (i) impact piling; and (j) rail track tamping.
IFIAP	Independent Flood Impact Assessment Panel
ICNG	<i>Interim Construction Noise Guideline</i> (DECC, 2009)
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. Note: "material harm" is defined in this approval
LALC	Local Aboriginal Land Council
Land	Has the same meaning as the definition of the term in section 1.4 of the EP&A Act
Landowner	Has the same meaning as "owner" in the <i>Local Government Act 1993</i> and in relation to a building means the owner of the building.

Term	Definition
Local road	Any road that is not defined as a classified road under the <i>Roads Act 1993</i> (NSW)
LOTE	Language Other Than English
Low Impact work	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) site establishment work approved under a Site Establishment Management Plan in accordance with Condition A24; (d) operation of ancillary facilities if the ER has determined the operational activities will have minimal impact on the environment and community; (e) treatment of contaminated sites subject to the recommendations of a Remediation Report prepared in accordance with Condition E165; (f) minor clearing and relocation of native vegetation, as identified in the documents listed in Condition A1; (g) installation of mitigation measures including erosion and sediment controls, temporary exclusion fencing for sensitive areas and acoustic treatments; (h) property acquisition adjustment work including installation of property fencing; (i) relocation and connection of utilities where the relocation or connection has been determined by the ER to have a minor impact to the environment; (j) establishing minor ancillary facilities in accordance with Condition A28; (k) archaeological testing under the <i>Code of practice for archaeological investigation of Aboriginal objects in NSW</i> (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; (l) archaeological and cultural salvage undertaken in accordance with a strategy or salvage operation required by the conditions of this approval; (m) maintenance work to existing buildings and structures as required to facilitate the carrying out of the CSSI; and (n) other activities determined by the ER to have minimal environmental impact which may include 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. 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 <i>Biodiversity Conservation Act 2016</i>), 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 or DPI Fisheries (in the case of impact upon fish, aquatic invertebrates or marine vegetation); and (ii) any night time work that exceeds noise management levels as defined in the ICNG.

CONSOLIDATED APPROVAL

Term	Definition
	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.
Material harm	This 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).
Minister	NSW Minister for Planning
NML	Noise Management Level as defined in the <i>Interim Construction Noise Guideline</i> (DECC, 2009)
Non-compliance	An occurrence, set of circumstances or development that is a breach of this approval.
OEMP	Operational Environmental Management Plan
Operation	The carrying out of the CSSI (whether in full or in part) upon the completion of construction. Note: There may be overlap between the carrying out of construction and operation if the phases of the CSSI are staged through a Staging Report. Commissioning trials of equipment and temporary use of any part of the CSSI are within the definition of construction.
ONCR	Operational Noise Compliance Report
ONVR	Operational Noise and Vibration Review
PIAR	Preferred Infrastructure/Amendment Report
Planning Secretary	Planning Secretary of the Department (or nominee, whether nominated before or after the date on which this approval was granted).
PCT	Plant Community Type as related to the BioNet Vegetation Classification system.
POEO Act	<i>Protection of the Environment Operations Act 1997</i> (NSW)
Proponent	The person identified as the proponent in Schedule 1 of this approval and any other person carrying out any part of the CSSI from time to time.
Publicly available	To be made available on the website required under Condition B18 of this approval.
Rail Corridor	Land that is: (a) owned, leased, managed or controlled by a public authority for the purpose of a railway or rail infrastructure facilities, or zoned under an environmental planning instrument predominantly, or (b) solely for development for the purpose of a railway or rail infrastructure facilities.
RAPs	Registered Aboriginal Parties

CONSOLIDATED APPROVAL

Term	Definition
Relevant council(s)	Narrabri Shire Council, Gilgandra Shire Council, Narromine Shire Council, Coonamble Shire Council, Warrumbungle Shire Council (as relevant).
Relevant roads authority	The same meaning as the road authorities defined in the <i>Roads Act 1993</i> (NSW).
Relevant state agency	Includes state government agencies and authorities.
Relic	The same meaning as the definition of the term in section 4 of the <i>Heritage Act 1977</i> (NSW).
Response to Submissions	The Proponent's response to issues raised in submissions received during the public exhibition of the CSSI application and the Preferred Infrastructure/Amendment Report
SA	The Social Advisor for the CSSI approved by the Planning Secretary
Sensitive land uses	Includes: residence, educational institution (e.g. school, university, TAFE college), health care facility (e.g. nursing home, hospital), religious facility (e.g. church), child care centres, passive recreation areas (including outdoor grounds used for teaching), commercial premises (including film and television studios, research facilities, entertainment spaces, temporary accommodation such as caravan parks and camping grounds, restaurants, office premises, and retail spaces), industrial premises and others as identified by the Planning Secretary.
SES	NSW State Emergency Services
SIMP	Social Impact Management Plan
SMART	Specific, Measurable, Achievable, Realistic and Timely
TfNSW	Transport for NSW
Tree	Long lived woody perennial plant greater than (or usually greater than) 3 metres in height with one or relatively few main stems or trunks (AS4373-2007 Pruning of amenity trees)
Unexpected heritage find	An object or place that is discovered during the carrying out of the CSSI and which may be a heritage item but was not identified in the documents listed in Condition A1 or suspected to be present. An unexpected heritage find does not include human remains.
Vulnerable or marginalised groups	Vulnerable or marginalised groups are those people: on very low incomes, living with disabilities or poor health, from culturally and linguistically diverse (CALD) communities, experiencing homelessness or insecure housing, and those who for whatever reason are unable or unwilling to express or represent themselves and their needs. In practice, this will differ according to context, but may include: women, elderly people, children and youth, single-parent households, minorities, refugees and Indigenous peoples.
Water Group	Water Group of the Department of Planning and Environment and the National Resources Access Regulator
Work	Any physical work for the purpose of the CSSI including construction and low impact work but not including operational maintenance work.

SUMMARY OF REPORTING AND APPROVAL REQUIREMENTS

Reports and notifications that must be provided to the Planning Secretary under the terms of this approval are listed in **Table 2**. Note that under **Condition A9** of this approval the Proponent may seek the Planning Secretary's agreement to a later timeframe for submission (other than in relation to the immediate written notification of an incident required under **Condition A56**).

Table 2: Reports, Notifications and Approval of Appointment Requests that must be Submitted to the Planning Secretary

Condition	Report / Notification	Timing ¹	Purpose
Part A - Administrative			
A9	Staging Report	One (1) month prior to commencement of construction (or operation if only staged operation is proposed) of the first of the proposed stages	Approval
A13	Revised Staging Report	One (1) month prior to the proposed change in the staging	Approval
A17	Construction Environmental Management Framework	One (1) month before the lodgement of any CEMP, CEMP sub plan or CMP	Approval
A23	Temporary Workforce Accommodation Facility Management Plan	One (1) month before occupation of the temporary workforce accommodation facility by construction personnel	Approval
A24	Site Establishment Management Plan	One (1) month before the establishment of any ancillary facilities or temporary workforce accommodation facility	Approval
A33	Environmental Representative	One (1) month prior to the commencement of works	Approval
A37(d)	Documents requiring ER endorsement only	As soon as practicable after endorsement by the ER	Information
A37(j)	Environmental Representative Monthly Reports	Within seven (7) days following the end of each month for the duration of the ER's engagement for the CSSI	Information
A39	Acoustics Advisor	One (1) month prior to the commencement of work	Approval
A37(j)	Monthly Noise and Vibration Report	Within seven (7) days following the end of each month for the duration of the AA's engagement for the CSSI	Information
A44	Social Advisor	One (1) month prior to the commencement of work	Approval
B12	Community Complaints Mediator	One (1) month prior to the commencement of work	Approval
A49	Compliance Reports	Within the timeframes set out in the <i>Compliance Reporting Post Approval Requirements (2020)</i>	Information
A50	Independent Auditors	Must be approved before the commencement of an Independent Audit	Approval
A54	Independent Audit Reports and Proponent's response	Within two (2) months of undertaking the independent audit site inspection	Information
A56	Notification of incidents	Immediately upon becoming aware of the incident	Information

¹ Where a proposal is staged, all required approvals must be obtained before the commencement of the relevant stage.

CONSOLIDATED APPROVAL

Condition	Report / Notification	Timing ¹	Purpose
A58	Written notification of non-compliance	Non-compliance notification required in writing seven (7) days after the Proponent becomes aware of the non-compliance	Information
Part B - Communication Information and Reporting			
B1	Communication Strategy	One (1) month before the commencement of any work	Approval
B8	Complaints Register	Upon request of the Planning Secretary	Information
Part C - Construction Environmental Management			
C4	CEMPs (except for any CEMPs expressly nominated by the Planning Secretary to be endorsed by the ER only)	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	Approval
C4	CEMP Sub-plans (except for any sub-plans expressly nominated by the Planning Secretary to be endorsed by the ER only)	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	Approval
C20	Construction Monitoring Programs (except for any programs expressly nominated by the Planning Secretary to be endorsed by the ER only)	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	Approval
C24	Construction Monitoring Report	As specified in Construction Monitoring Programs	Information
Part D - Operation Environmental Management			
D3	OEMP or EMS	One (1) month before the commencement of operation	Information
D5	Operational Monitoring Program(s)	One (1) month before the commencement of operation	Approval
Part E – Key Issues			
Noise and Vibration			
E3	Variation to Work Hours	On becoming aware of the need for emergency works	Information
E5	Out-of-Hours Work Protocol	Before the commencement of out-of-hours work	Approval
E10	Blast Management Strategy	One (1) month before the commencement of blasting	Information
E15	Operational Noise and Vibration Review	Before the implementation of any operational noise mitigation measures	Approval
E20	Operational Noise Compliance Report	Within 90 days of completing the operational noise monitoring	Information
Biodiversity			
E30	Five-clawed Worm Skink Management Plan	Before the commencement of work in Five-clawed Worm Skink habitat	Approval

CONSOLIDATED APPROVAL

Condition	Report / Notification	Timing ¹	Purpose
Flooding			
E42	Independent hydrologist	Prior to commencing a peer review of the hydraulic and hydrological flood modelling.	Approval
E54	Independent geomorphologist	Prior to commencing a peer review of the Erosion Threshold Velocities Methodology	Approval
E56	Erosion Threshold Velocities Report	Within six months of the date of this approval or prior to the commencement of construction	Approval
E58	Independent hydrological, engineering and agricultural experts and terms of reference	Prior to commencement of any works that have the potential to result in non-compliance with Condition E47	Approval
E61	Changes requested to the Terms of Reference by the IFIAP	When changes to the Terms of Reference are requested by the IFIAP	Approval
E63	Report on IFIAP recommendations	Upon finalisation of the report	Information
E65	Copy of any recommendation by the IFIAP and evidence of the Proponent's implementation	Following implementation of the recommendation	Information
E69	Flood Design Verification Report	At least two (2) months prior to the commencement of construction of permanent works that may impact on flooding	Approval
E70	Program for review of an interim Flood Design Verification Report	One (1) month before the date an Interim Flood Design Verification Report would be submitted	Information
E73	Copy of monitoring results and commentary	Within one (1) month of completing the monitoring.	Information
E76	Flood Review Report	Within three (3) months of finalising the report	Information
E77	Monitoring Methodology	Within six (6) months before the commencement of operation of the CSSI	Information
Traffic, Transport and Access			
E98	Public Level Crossing Treatment Report	One (1) month before the closure or upgrade of a public level crossing	Information
E99	Private Level Crossing Treatment Report	One (1) month before the closure or upgrade of a private level crossing	Information
E101	Level Crossing Performance Report	Within 60 days of its completion	Information
E118	Road Safety Audit	On request	Information
Social Impacts			
E121	Social Impact Management Plan	Two (2) months prior to the commencement of construction	Approval
Visual Amenity and Landscape Impacts			
E137	Visual and Landscape Impact Mitigation Plan	Six (6) months after the commencement of construction	Approval
Heritage			

CONSOLIDATED APPROVAL

Condition	Report / Notification	Timing ¹	Purpose
E147	Aboriginal Cultural Values Plan	One (1) month before the commencement of construction	Approval
E149	Aboriginal Archaeological Test Excavation Methodology	One (1) month before the test excavation commences	Approval
E150	Aboriginal Archaeological Salvage Excavation Methodology	One (1) month before the salvage excavation	Information
E151	Aboriginal Cultural Heritage Excavation Report(s)	Within 24 months of the completion of Aboriginal archaeological excavations (both test and salvage)	Information
E155	Unexpected Heritage Finds and Human Remains Procedure	Before the commencement of Work	Information
Soils			
E168	Unexpected Finds Procedure for Contamination	Before the commencement of Work	Information

Note: This Table is not a condition of this approval. If there is an inconsistency between a requirement in this Table and a requirement in a condition, the requirement of the condition prevails

SCHEDULE 2

PART A

ADMINISTRATIVE CONDITIONS

GENERAL

- A1 The Proponent must carry out the CSSI in accordance with the terms of approval and generally in accordance with the:
- (a) Inland Rail – Narromine to Narrabri Environmental Impact Statement (ARTC 2020);
 - (b) Narromine to Narrabri Project Response to Submissions (ARTC 2022);
 - (c) Narromine to Narrabri Preferred Infrastructure / Amendment Report (ARTC 2022);
 - (d) Narromine to Narrabri Preferred Infrastructure / Amendment Report – Response to Submissions (ARTC 2022);
 - (e) BAM 2020 Revision G dated 17/01/2023 (the BDAR Revision G); and
 - (f) [Narromine to Narrabri Project Administrative Modification 01 – CSSI 9487 \(February 2024\)](#),
 - (g) [Narromine to Narrabri Project Administrative Modification 02 – CSSI 9487 \(Inland Rail, August 2025\)](#).
- A2 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.
- A3 In the event of an inconsistency between:
- (a) the conditions of this approval and any document listed in [Condition A1 \(a\) to \(g\)](#) inclusive, the conditions of this approval will prevail to the extent of the inconsistency; and
 - (b) any document listed in [Condition A1\(a\) to \(d\)](#) 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.
- A4 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.
- A5 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.
- A6 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.

CONSOLIDATED APPROVAL

NOTIFICATION OF COMMENCEMENT

- A7 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.
- A8 If the construction or operation of the CSSI is to be staged, the Department must be notified in writing at least one (1) month before the commencement of each stage, of the date of the commencement of that stage.

TIMING AND APPROVALS

- A9 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 A56**.
- A10 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;
 - (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 The CSSI may be constructed and operated in stages. 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).
- A12 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.
- A13 The CSSI must be staged in accordance with the **Staging Report**, as approved by the Planning Secretary.

CONSOLIDATED APPROVAL

- A14 Where staging is proposed, the terms of this approval that apply or are relevant to the work or activities to be carried out in a specific stage must be complied with at the relevant time for that stage.
- A15 Where changes are proposed to the staging of construction or operation, a revised Staging Report must be prepared and submitted to the Planning Secretary for approval no later than one (1) month prior to the proposed change in the staging.
- A16 Should a **Construction Environmental Management Framework (CEMF)** be submitted for approval under **Condition A17**, 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.

Construction Environmental Management Framework

- A17 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 and council stakeholders required.

For a Low Risk Stage(s) the requirements of **Part C** of this approval do not apply. In these circumstances, a **CEMP**, **CEMP sub-plan** and **CMP**, may be substituted with an alternate process such as a Construction Work Method Statement (CWMS) or equivalent.

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.

Note: *The Planning Secretary may vary the CEMF in relation to the endorsement authority for the CEMPs, CEMP Sub-plans and CMPs.*

- A18 The approved **CEMF** must be implemented for the duration of construction.
- A19 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.

Staging, Combining and Updating Strategies, Plans or Programs

- A20 Strategies, plans or programs required by this approval can be submitted on a progressive basis, with the agreement of the Planning Secretary.

With the agreement of the Planning Secretary, the Proponent may prepare the updated strategy, plan or program without undertaking all the consultation required under the applicable condition in this approval

CONSOLIDATED APPROVAL

Notes:

1. While any strategy, plan or program may be submitted on a progressive basis, the Proponent must ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times; and
2. If the submission of any strategy, plan or program is to be undertaken in a progressive manner, then the relevant strategy, plan or program must clearly describe the specific stage to which strategy, plan or program applies, the relationship of this stage to future stages, and the trigger for updating the strategy, plan or program.

LOW IMPACT WORK

A21 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 submitted to the Planning Secretary for information prior to low impact work commencing.

ANCILLARY FACILITIES

A22 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.

TEMPORARY WORKFORCE ACCOMMODATION FACILITIES

A23 The Proponent must prepare a **Temporary Accommodation Facility Management Plan** in consultation with the relevant council, NSW Police, NSW Health, NSW Fire and Rescue and NSW Ambulance. The **Plan** must be reviewed by the **Social Advisor** and 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 E123 to E128**;
- (b) management and emergency provisions including staff roles and responsibilities, provision of security and paramedic staff required by **Condition E124**, communication procedures with emergency services, and community consultation and complaints processes

CONSOLIDATED APPROVAL

- 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 E126**;
 - (d) the code of conduct as required by **Condition E129** 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 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 **Temporary Workforce Accommodation Facility Management Plan** includes the operation of the mobile accommodation facilities at the general compound sites.

Nothing in this condition prevents the Proponent from preparing individual **Temporary Workforce Accommodation Facility Management Plans** for each accommodation facility, or one **Temporary Workforce Accommodation Facility Management Plan** for all accommodation facilities. 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 C1**.*

SITE ESTABLISHMENT WORK

Site Establishment Management Plan

- A24 Before the establishment of any ancillary facility (excluding minor ancillary facilities established under **Condition A28**) 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

CONSOLIDATED APPROVAL

- (f) a program for monitoring the performance outcomes, including a program for construction noise and vibration monitoring consistent with the requirements of **Conditions C6** and **C16**.

Nothing in this condition prevents the Proponent from preparing individual **Site Establishment Management Plans** for each ancillary facility or temporary workforce accommodation facility, or one Site Establishment Management Plan for all ancillary facilities and temporary workforce accommodation facilities. 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 C1** will apply to the operation of ancillary facilities and the **Temporary Workforce Accommodation Facility Management Plan** required by **Condition A23** will apply to the operation of accommodation facilities.

Operation of Ancillary Facilities

- A25 The use of an ancillary facility for construction must not commence until the **CEMP** required by **Condition C1**, relevant **CEMP Sub-plans** required by **Condition C6** and relevant **Construction Monitoring Programs** required by **Condition C16** have been approved by the Planning Secretary.

This condition does not apply to the use of minor Ancillary Facilities established under **Condition A28**.

***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.*

Access to Ancillary Facilities

- A26 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, or in the case of roads within State Forests, FCNSW. 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 A22**.
- A27 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. Temporary works designs and traffic control plans for access roads / tracks connecting with the public road network must be approved by the relevant roads authority and where it is a classified road, TfNSW, prior to their construction.

Minor Ancillary Facilities

- A28 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
 - (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

CONSOLIDATED APPROVAL

- A29 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.

Decommissioning of Ancillary Facilities

- A30 Once an ancillary facility is no longer required for the CSSI, the land must be returned to its pre-existing or better condition.

INDEPENDENT APPOINTMENTS

- A31 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.

- A32 The Planning Secretary may at any time commission an audit of how an **Independent Appointment** has exercised their functions. The Proponent must:

- (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.

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.

ENVIRONMENT REPRESENTATIVE

- A33 Work must not commence until an **Environmental Representative (ER)** has been approved by the Planning Secretary and engaged by the Proponent.

- A34 The Planning Secretary's approval of an **ER** must be sought no later than one (1) month before the commencement of Work.

- A35 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).

- A36 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.

- A37 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;

CONSOLIDATED APPROVAL

- (d) review documents identified in **Conditions A11, A24, B8, C1, C6, C16 and E121**, 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 for information 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, A24, A49, B1, C1, C6, C16 and E113** 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 A50** 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 A28** 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
 - (j) prepare and submit to the Planning Secretary and other relevant regulatory agencies, for information, 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.
- A38 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 A37** (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).

ACOUSTICS ADVISOR

- A39 Work must not commence until an **Acoustics Advisor(s) (AA)** has been nominated by the Proponent and approved by the Planning Secretary.
- A40 A suitably qualified and experienced **AA** in noise and vibration management, who is independent of the design and construction personnel, must be nominated by the Proponent and engaged for the duration of Work and for no less than six (6) months following completion of construction of the CSSI.
- A41 The Proponent may nominate additional suitably qualified and experienced persons, for the Planning Secretary's approval, to assist the lead **AA**.
- A42 The approved **AA** must:

CONSOLIDATED APPROVAL

- (a) receive and respond to communication from the Planning Secretary in relation to the performance of the CSSI in relation to noise and vibration;
- (b) consider and inform the Planning Secretary on matters specified in the conditions of this approval relating to noise and vibration;
- (c) consider and recommend, to the Proponent, improvements that may be made to avoid or minimise adverse noise and vibration impacts;
- (d) review all proposed night-time works (with the exception of low risk activities) to determine if sleep disturbance would occur and recommend measures to avoid sleep disturbance or appropriate additional alternative mitigation measures;
- (e) review all noise and vibration documents required to be prepared under the conditions of this approval and, should they be consistent with the conditions of this approval, endorse them before submission to the Planning Secretary (if required to be submitted to the Planning Secretary) or before implementation (if not required to be submitted to the Planning Secretary);
- (f) regularly monitor the implementation of all noise and vibration documents required to be prepared under the conditions of this approval to ensure implementation is in accordance with what is stated in the document and the conditions of this approval;
- (g) review the Proponent's notification of incidents in accordance with **Condition A56**;
- (h) in conjunction with the **ER** (where required), the **AA** must:
 - (i) as may be requested by the Planning Secretary or **Community Complaints Mediator** (required by **Condition B12**), help plan, attend or undertake audits of noise and vibration management of the CSSI including briefings, site visits, and respond to complaints,
 - (ii) in the event that conflict arises between the Proponent and the community in relation to the noise and vibration performance of the CSSI, follow the procedure in the Overarching Community Communication Strategy referenced in **Condition B1** to attempt to resolve the conflict, and if it cannot be resolved, notify the Planning Secretary,
 - (iii) if requested by the **ER**, consider relevant minor amendments made to the **Site Establishment Management Plan, Temporary Workforce Accommodation Facility Management Plan, CEMP**, relevant sub-plans and noise and vibration monitoring programs that require updating or are of an administrative nature, and are consistent with the conditions of this approval and the management plans and monitoring programs approved by the Planning Secretary and, if satisfied such amendment is necessary, endorse the amendment, (this does not include any modifications to the conditions of this approval),
- (i) if requested by the **ER**, review the noise impacts of minor ancillary facilities, and
- (j) prepare and submit to the Planning Secretary and other relevant regulatory agencies, for information, a **Monthly Noise and Vibration Report** detailing the **AA**'s actions and decisions on matters for which the **AA** was responsible in the preceding month. The **Monthly Noise and Vibration Report** must be submitted within 14 days following the end of each month for the duration of the **AA**'s engagement for the CSSI, or as otherwise agreed by the Planning Secretary.

A43 The Proponent must cooperate with the **AA** by:

- (a) providing access to noise and vibration monitoring activities as they take place;
- (b) providing access to the **Complaints Register** if requested;
- (c) providing for review of noise and vibration documents required to be prepared under the conditions of this approval; and
- (d) considering any recommendations to improve practices and demonstrating, to the satisfaction of the **AA**, why any recommendation is not adopted.

Note: Information about third parties may only be provided to the Acoustics Advisor in accordance with **Condition B9**.

SOCIAL ADVISOR

A44 Work must not commence until a **Social Advisor(s) (SA)** has been nominated by the Proponent and approved by the Planning Secretary.

CONSOLIDATED APPROVAL

- A45 A suitably qualified and experienced lead **SA** who meets the requirements of a suitably qualified person outlined in Appendix B of the *Social Impact Assessment Guideline* (DPIE November 2021), who was not involved in the preparation of the documents listed in **Condition A1** and is independent of the design and construction personnel, must be nominated by the Proponent and engaged for the duration of Work (as required by **Condition A44**) and for the duration of the implementation of the **Social Impact Management Plan (SIMP)** required by **Condition E121**.

Note: *The intent of the SA during operation is to provide support to the community during the transition period once an operator takes over the CSSI during operation, and to monitor the implementation of the SIMP.*

- A46 The Proponent may nominate additional suitably qualified and experienced persons, for the Planning Secretary's approval, to assist the lead **SA**.

- A47 The **SA** must:

- (a) review the **SIMP** required by **Condition E121** and the **Temporary Accommodation Facility MP** required by **Condition A23**;
- (b) monitor the implementation of the **SIMP** required by **Condition E121**;
- (c) advise the **ER** in the implementation of the social aspects of **Condition A37**;
- (d) assist the **ER** to consider any relevant minor amendments made to the **SIMP** and, where requested by the **ER** to review other minor amendments sub-plans in accordance with **Condition A37**;
- (e) review the quarterly social impact performance required by **Condition E121**;
- (f) respond to communication from the Planning Secretary regarding the performance of the CSSI in relation to social impact management and monitoring activities; and
- (g) as may be requested by the Planning Secretary or **Community Complaints Mediator** (required by **Condition B12**), review and monitor adaptive management measures required to address complaints.

- A48 The **SA** must be provided access to social impact management and related monitoring activities and outcomes, including outcomes and activities associated with the implementation of the **Communications Strategy** required by **Condition B1** and the **Social Impact Management Plan** required by **Condition E121**. Recommendations by the **SA** to improve practices must be implemented or if not, it must be demonstrated to the **SA**, why a recommendation was not adopted and be provided to the Planning Secretary on request.

COMPLIANCE REPORTING

- A49 Compliance Reports must be submitted to the Department in accordance with the timeframes set out in the *Compliance Reporting Post Approval Requirements* (DPIE, 2020), unless otherwise agreed by the Planning Secretary.

AUDITING

- A50 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 E118**.
- A51 Independent Audits of the CSSI must be conducted and carried out in accordance with the *Independent Audit Post Approval Requirements* (DPIE, 2020).
- A52 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.

CONSOLIDATED APPROVAL

A53 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 A52**;
- (b) submit the response to the Planning Secretary; and
- (c) make each Independent Audit Report, and response to it, publicly available within 60 days of submission to the Planning Secretary, unless otherwise agreed by the Planning Secretary.

A54 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.

A55 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.

INCIDENT NOTIFICATION AND REPORTING

A56 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.

A57 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.

NON-COMPLIANCE NOTIFICATION

A58 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.

A59 A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.

PART B

COMMUNITY INFORMATION AND REPORTING

COMMUNITY INFORMATION, CONSULTATION AND INVOLVEMENT

B1 A **Communication Strategy** must be prepared to facilitate communication about construction and operation of the CSSI with:

- (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 Communication Strategy if it meets the requirements of these conditions of approval.*

B2 The **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 LOTE, 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 (if proposed);
- (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 A5**;
- (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:
 - (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 construction of the CSSI, including timing for mediation to be undertaken once it has been escalated to the dispute resolution process; and
 - (iv) 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 E105**.

The Proponent must continue the operation of the existing Community Consultative Committee as part of its 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 Communication Strategy.

B3 The **Communication Strategy** must be submitted to the Planning Secretary for approval no later than one (1) month before the commencement of any Work.

CONSOLIDATED APPROVAL

- B4 Work for the purposes of the CSSI must not commence until the Communication Strategy has been approved by the Planning Secretary.
- B5 The 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.

COMPLAINTS MANAGEMENT SYSTEM

- B6 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 months following completion of construction of the CSSI.
- B7 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.

- B8 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.
- B9 Personal details of any complainant are not to be provided to the ER, AA or SA unless otherwise agreed to or requested by the complainant.
- B10 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 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.*

- B11 The **Complaints Register** must be provided to the Planning Secretary upon request, within the timeframe stated in the request.

CONSOLIDATED APPROVAL

COMMUNITY COMPLAINTS MEDIATOR

B12 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.

B13 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.

B14 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 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 The **Community Complaints Mediator** will:

- (a) review any unresolved disputes if the procedures and mechanisms under **Condition B2(j)B2(j)** do not satisfactorily address complaints; and
- (b) make recommendations to the Proponent to satisfactorily address complaints, resolve disputes or mitigate against the occurrence of future complaints or disputes.

B16 The recommendations made by the Community Complaints Mediator in accordance with **Condition B15** must be implemented and be within a timeframe agreed with the Community Complaints Mediator, unless otherwise agreed with the Planning Secretary.

B17 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.

PROVISION OF ELECTRONIC INFORMATION

B18 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 12 months following the completion of construction. 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 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;

CONSOLIDATED APPROVAL

- (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.

- 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 A51**;
 - (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.

PART C

CONSTRUCTION ENVIRONMENTAL MANAGEMENT

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

- C1 Except as provided by **Condition A17**, 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.
- C2 The **CEMP** must provide:
- (a) a description of activities to be undertaken during construction (including the scheduling of construction);
 - (b) details of environmental policies, guidelines and principles to be followed in the construction of the CSSI;
 - (c) a program for ongoing analysis of the key environmental and social impact risks arising from the activities described in subsection (a) of this condition, including an initial risk assessment undertaken before the commencement of construction of the CSSI. The initial risk assessment may be undertaken as part of the **CEMF** pursuant to **Condition A17**;
 - (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) manage the risks identified in the risk analysis undertaken in subsection (c) of this condition;
 - (e) an inspection program detailing the activities to be inspected and frequency of inspections;
 - (f) a protocol for managing and reporting, including to the relevant roads authority where relevant to traffic, transport and access management, any:
 - (i) incidents; and
 - (ii) non-compliances with this approval or statutory requirements;
 - (g) procedures for rectifying any non-compliance with this approval identified during compliance auditing, incident management or at any time during construction;
 - (h) a list of all the **CEMP Sub-plans** required in respect of construction, as set out in **Condition C6**. 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;
 - (i) a description of the roles and environmental responsibilities for relevant employees and any relevant independent appointment;
 - (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;
 - (k) for periodic review and update of the **CEMP** and all associated plans and programs; and
 - (l) relevant details from the **Site Establishment Management Plan(s)**.
- C3 CEMP(s) (and relevant CEMP sub-plans) must be submitted to the Planning Secretary for approval except those permitted to be endorsed by others pursuant to a CEMP approved by the Planning Secretary under **Condition A17**.
- C4 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.
- C5 **CEMP(s)** (and relevant **CEMP sub-plans**) not requiring the Planning Secretary's approval, but requiring ER endorsement, must be submitted to the **ER** no later than one (1) month before the commencement of construction or where construction is staged no later than one (1) month before the commencement of that stage. The **CEMPs** (and relevant **CEMP sub-plans**) must be endorsed by the **ER** as being consistent with the conditions of this approval and all undertakings made in the documents listed in **Condition A1**.

CONSOLIDATED APPROVAL

- C6 Except as provided by **Condition A17**, 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 A5**.

	Required CEMP Sub-plan	Relevant authorities to be consulted for each CEMP Sub-plan
(a)	Traffic, transport and access	TfNSW, FCNSW and relevant councils
(b)	Noise and Vibration	Relevant councils
(c)	Biodiversity	DPI Fisheries, BCS, Crown Lands, DCCEEW and relevant councils
(d)	Soil and Water	Relevant councils, DPE Water, BCS and Crown Lands
(e)	Heritage	Heritage NSW, RAPs, and relevant councils
(f)	Flood Emergency Management	SES, BCS and relevant councils
(h)	Borrow Sites	BCS, Crown Lands, relevant council and relevant roads authority

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.

- C7 The **CEMP Sub-plans** listed in **Condition C6** must state how:

- (a) the environmental performance outcomes identified in the documents 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 (including, but not limited to, the Grade Separating Road Interfaces Program sites located on Tomingley Road near Narromine, Eumungerie Road near Narromine, Oxley Highway near Collie and Castlereagh Highway near Curban, as well as concurrent activities in this CSSI), as identified through ongoing environmental risk analysis, will be managed.

- C8 The **Construction Noise and Vibration Sub-plan** must include, but not limited to:

- (a) an approach to assess and manage construction fatigue from noise impacts on an ongoing basis; and
- (b) 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.

- C9 The **Biodiversity Management Sub-plan** must be endorsed by a suitably qualified and experienced ecologist and include, but not be limited to:

- (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*;
- (d) procedures for the dewatering of farm dams and coffer dams, including the relocation of aquatic fauna; and
- (e) protocols for unexpected and incidental finds of threatened species and threatened ecological communities within the construction boundary including in accordance with

Condition E21, the requirement for all Work in the associated location to stop to prevent further impact and the Planning Secretary and BCS (and DCCEEW where relevant) notified in writing. Work must not recommence until the relevant state agencies have been consulted and any required approvals have been obtained.

C10 The **Traffic, Transport and Access Management Sub-plan** 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, borrow sites and other 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**;
- (e) provide any necessary road intersection treatments to accommodate construction traffic, including but not limited to the Newell Highway and Gibbons Street intersection at Narrabri;
- (f) ensure road repair is undertaken periodically before and during construction, and as identified in **Conditions E113 and E115**;
- (g) minimise concurrent and cumulative impacts from construction of adjoining Inland Rail Projects and operation of the Narwonah Materials Distribution Centre;
- (h) inform road users and freight operators of changes to traffic conditions;
- (i) maintain pedestrian and vehicular access to affected properties, including mechanisms to consult with affected landowners and implement measures prior to any access disruption;
- (j) identify construction vehicle routes not identified in the documents listed in **Condition A1**;
- (k) prepare a Waterway Traffic Management Plan to minimise adverse impacts to navigation on navigable waterways; and
- (l) prepare a Country Rail Network / Inland Rail Interface Management Plan to address potential impacts to Country Rail Network / Inland Rail interfaces

C11 The **Soil and Water Management Sub-plan** must include:

- (a) Measures to avoid erosion and sedimentation impacts to agricultural and forested land, including in 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) mitigation measures to address construction water resource shortages that arise;
- (e) a Construction Groundwater Management Plan (CGMP) that:
 - (i) is prepared in consultation with DPE Water;
 - (ii) includes provision of treatment facilities to ensure that water quality is suitable for the specified use;
 - (iii) obtains relevant approvals prior to extraction of groundwater for construction;
 - (iv) includes a bore census for existing bores within 1km of the proposals bore fields, where permitted by landholders; and
 - (v) records and reports groundwater extraction in accordance with the relevant requirements of the *Non-Urban Metering Policy* (DPIE 2020) and clause 21(6) of the *Water Management (General) Regulations 2018*;
- (f) a Borefield Management Plan as per **Condition E92**;
- (g) [a Groundwater and Surface Water Monitoring Program as per Conditions C18 and E93](#);
- (h) a dam dewatering protocol;
- (i) a spill response procedure; and
- (j) a Watercourse Rehabilitation Strategy as per **Condition E84**.

C12 The **Heritage Management Sub-plan** must include:

- (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 salvaging and safe keeping the Aboriginal objects identified in the documents listed in **Condition A1**, and their long-term management;

- (c) 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;
- (d) 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 targeted Aboriginal groups work shall be undertaken under the guidance of an appropriately qualified heritage specialist; and
- (e) an Unexpected Heritage Finds and Human Remains Procedure in accordance with **Condition E155**, 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.*

- C13 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.
- C14 The **Borrow Sites Management Sub-plan** must include:
- (a) details of construction/extraction methods and activities, including the crushing and screening of extractive materials, carried out at each borrow site;
 - (b) management and mitigation measures to be used to minimise surface and groundwater, Aboriginal and non-Aboriginal heritage, air quality, noise and vibration, biodiversity, traffic and access and visual impacts;
 - (c) management and mitigation measures to minimise groundwater inflow impacts to Borrow Pits;
 - (d) consultation with sensitive receivers consistent with the Communication Strategy required by **Condition B1**; and
 - (e) details of the rehabilitation of each borrow site, including future landform and use of the borrow site, landscaping and revegetation, and measures that would be implemented to minimise or manage the ongoing environmental effects of the site consistent with **Condition E160**.
- C15 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 A17**). 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**.

CONSTRUCTION MONITORING PROGRAMS

- C16 Except as provided by **Condition A17** 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**.

	Required Construction Monitoring Programs	Relevant government authorities to be consulted for each Construction Monitoring Program
(a)	Noise and vibration	Nil
(b)	Water usage	DPE Water
(c)	Surface Water and Groundwater	DPE Water, Crown Lands and relevant Councils
(e)	Air Quality	Nil
(f)	Physical condition of local and forestry roads	Relevant councils and FCNSW
(g)	Biodiversity	BCS

- C17 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;
 - (d) the parameters of the CSSI to be monitored;
 - (e) the frequency of monitoring to be undertaken;
 - (f) the location of monitoring;
 - (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 C18**.
- C18 The **Groundwater and Surface Water Monitoring Program** must be prepared in accordance with the requirements of **Condition E93**.
- C19 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 A17**.
- C20 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.
- C21 **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**.
- C22 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 A17**), and all relevant baseline data for the specific construction activity has been collected.
- C23 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.

CONSOLIDATED APPROVAL

- C24 The results of the **CMP(s)** must be submitted to the Planning Secretary, and relevant regulatory agencies, for information 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**.

PART D
OPERATIONAL ENVIRONMENTAL MANAGEMENT

OPERATIONAL ENVIRONMENTAL MANAGEMENT

- D1 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.
- D2 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 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 The **OEMP** or **EMS** or equivalent as agreed with the Planning Secretary, must be submitted to the Planning Secretary for information no later than one (1) month before the commencement of operation, or where operation is staged, no later than one (1) month before the commencement of operation of that stage.
- D4 The **OEMP** or **EMS** or equivalent as agreed with the Planning Secretary, as submitted to the Planning Secretary and amended from time to time, must be implemented for the duration of operation and the **OEMP** or **EMS** or equivalent must be made publicly available before the commencement of operation.

OPERATIONAL MONITORING PROGRAMS

- D5 The following **Operational Monitoring Programs** must be prepared in consultation with the relevant state agencies identified for each **Operational Monitoring Program** to compare actual operational performance against predicted performance. Details of all information requested by a state 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 state agencies as required by this condition.

	Operational Monitoring Programs	Relevant authority(s) and council(s) to be consulted for each Operational Monitoring Program
(a)	Rail Noise	EPA
(b)	Groundwater Monitoring Program	DPE Water, NRAR, relevant council(s)
(c)	Fauna Connectivity Monitoring, Predator Prevention and Mitigation Program	BCS, FCNSW and relevant council(s)

CONSOLIDATED APPROVAL

D6 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.

D7 The **Operational Groundwater Monitoring Program** must include:

- (a) monitoring of 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*.
- (b) treatment systems be designed to ensure relevant water quality criteria from the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* (ANZG, 2018), where required.
- (c) monitoring of groundwater levels, electrical conductivity and temperature in aquifers/groundwater bores adjacent to or intersected by the CSSI alignment, at an adequate depth, in consultation with DPE Water;
- (d) monitoring of the quantity, quality and reporting of groundwater at groundwater bores required by the CSSI (in particular Narromine North and Baradine worker accommodation sites) and inflow into Borrow Pit A;
- (e) monitoring geomorphological changes on watercourses physical structure on at least four cases of inundation to ensure mitigation measures are achieving desired outcomes;
- (f) a process for annually forwarding data on the monthly volume of groundwater discharged from the operational water treatment plant to DPE Water for a minimum period of two years, consistent with **Condition D8**.

Note: *The monitoring data to be provided to DPE Water must be both in a tabulated and electronic quality-controlled data (.csv, Excel) ready-to-use format.*

D8 Groundwater monitoring must continue for a period of at least two years (at intervals of six months) following the completion of construction. During the two year monitoring period at appropriate intervals, the Proponent must undertake a review of all collected and collated groundwater monitoring data, ascertain any measured or incidental impact against the predicted impacts from the groundwater modelling for the final design construction phase, and define future monitoring requirements in consultation with DPE Water. The review must determine if additional monitoring is required, and the time period for continued monitoring. The Proponent must notify the Planning Secretary within two weeks of the review as to the outcomes of the review and implement any requirements for future monitoring.

D9 The **Operational Monitoring Program(s)** must be submitted to the Planning Secretary for approval at least three (3) months before the commencement of operation.

D10 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.

D11 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, whichever is the greater.

CONSOLIDATED APPROVAL

- D12 The results of operational monitoring must be published in the form of an **Operational Monitoring Report** and provided on the Proponent's website at the frequency identified 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**. The Operational Monitoring Reports must summarise the trends in results and provide an interpretation of the results.
- D13 Where a relevant **OEMP Sub-plan** exists, the relevant **Operational Monitoring Program** may be incorporated into that **OEMP Sub-plan**.

PART E

KEY ISSUE CONDITIONS

NOISE AND VIBRATION

Work Hours

E1 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.

E2 Despite **Condition E1**, work (excluding the use of Borrow Sites, Narrabri multi-function compound, Narrabri structure compound, and construction related heavy vehicles travelling on any road not zoned RU1 or SP2 (where adjacent to land zoned RU1) and establishment of the temporary workforce accommodation facilities) may be undertaken during the hours of 6:00 am to 6:00 pm each day provided:

- (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 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** and as determined by the AA, 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) likely 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 AA and ER and provided to the Planning Secretary on request.

Note:

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

E3 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 $L_{Aeq(15\text{ minute})}$ 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 L_{AFmax} 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.

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 Noise Management Level 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 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 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.

Out-of-Hours Work Protocol – Work not subject to an EPL

- E5 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 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 and vibration criteria, including the determination of low and high-risk activities;

CONSOLIDATED APPROVAL

- (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** and **AA** review all proposed out of hours activities and confirm their risk levels;
 - (ii) low risk activities can be approved by the **ER**, and
 - (iii) 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 Noise generating work in the vicinity of potentially-affected community, religious, educational institutions and noise and vibration-sensitive businesses and critical working areas (such as theatres, laboratories and operating theatres) resulting in noise levels above the NMLs 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.

Noise and Vibration Mitigation

- E7 Mitigation measures must be implemented with the aim of achieving the following construction noise management levels and vibration criteria:
- (a) construction 'Noise affected' noise management levels established using the *Interim Construction Noise Guideline* (DECC, 2009);
 - (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";
 - (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 workforce temporary workforce accommodation facilities and borrow sites.

Any work identified as exceeding the noise management levels and/or vibration criteria must be managed in accordance with the **Construction Noise and Vibration Management Sub-plan** required by **Condition C6**.

Note: The *Interim Construction Noise Guideline* 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 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 C6**.

Construction Noise - Coordination and Respite

- E9 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.

CONSOLIDATED APPROVAL

Coordination and mitigation measures must be detailed in the **Noise and Vibration Management Sub-plan** required by **Condition C6**.

Blasting Management Strategy

E10 If blasting is proposed, 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) periods of relief; and
- (e) blasting program.

E11 The **Blast Management Strategy** must be endorsed by a suitably qualified and experienced person.

E12 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.

E13 The **Blast Management Strategy** must be submitted to the Planning Secretary for information 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.

E14 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 for safety or emergency reasons to avoid loss of life, property loss and/or to prevent environmental harm.

Noise Mitigation – Operational Noise Mitigation Measures

E15 The Proponent must prepare an **Operational Noise and Vibration Review (ONVR)** to confirm noise and vibration control measures that would be implemented for the operation of the CSSI. The **ONVR** and identification / 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. The **ONVR** must:

- (a) confirm the appropriate operational noise and vibration objectives and levels for each section at adjoining developments, 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 calibrated 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 posted speed, notch settings, dynamic braking, changes in speed, and gradients,
 - (v) safety devices such as warning horns and bells at level crossings.
- (c) Identify / confirm sensitive receivers at which the criteria set out in the Rail Infrastructure Noise Guideline (EPA, 2013) are predicted to be exceeded once the CSSI is operational and in 2040 as identified in documents in listed in **Condition A1**;

CONSOLIDATED APPROVAL

- (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 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 would render acoustic glazing and seals ineffective; and
 - (iii) all feasible barrier options including viaduct parapets and low profile barriers where there are two or more receivers grouped on the same side of the track.
- (e) Review the location of crossing loops, sidings, and level crossings, and investigate and implement practical measures to minimise adverse traffic, access and noise impacts;
- (f) describe the final suite of noise and vibration mitigation measures that will be implemented to achieve the noise criteria 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 E17**;
- (g) include a consultation strategy to seek feedback from directly affected landowners on the noise and vibration mitigation measures; and
- (h) procedures for the management of operational noise and vibration complaints.

The **ONVR** must be verified by an independent and suitably qualified acoustic expert and submitted to the Planning Secretary for approval before the implementation of any operational noise mitigation measures.

The Proponent must make the **ONVR** publicly available.

- E16 Noise and vibration control measures identified in the **ONVR** must be implemented.
- E17 Operational noise mitigation measures identified in **Condition E15** (such as at-property architectural treatments) that will not be affected by construction work, must be implemented:
 - (a) within six (6) 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.
- E18 Where implementation of operational noise mitigation measures are not proposed in accordance with **Condition E17**, the Proponent must 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** 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.
- E19 The Proponent must prepare an **Operational Noise Compliance Report Monitoring Plan** prior to commencement of the monitoring required in **Condition E20**. The monitoring plan must include, but not necessarily be limited to:
 - (a) Methodology including any proposed standards, guidelines or methods to be used
 - (b) Number and location of noise and vibration monitoring sites
 - (c) Selection criteria and justification for all monitoring locations including demonstration that the following matters have been considered:
 - (i) track features including bridges, curves, trackform, level crossings, turnouts, culverts, joints, crossing loops,
 - (ii) train operating characteristics including gradients, changes of speed, notch settings and dynamic braking,
 - (iii) predicted exceedances of airborne and groundborne performance criteria,
 - (iv) areas of receiver noise and/or vibration complaint,
 - (v) groups of sensitive receivers (e.g. towns, villages or clusters of receivers),
 - (vi) effectiveness of mitigation measures

CONSOLIDATED APPROVAL

- (d) The data and information to be collected at each monitoring location
- (e) Minimum duration and number of train passbys by type of train to be measured during day and night periods.
- (f) Contingencies in case of unsuitable weather conditions or unforeseen matters (e.g. extraneous noise, access to property).
- (g) Community engagement protocols for access to property

The **Operational Noise Compliance Report Monitoring Plan** must be submitted to the Planning Secretary for approval at least one (1) month before the commencement of the monitoring required by **Condition E20**.

E20 In 2028 and 2038, or as otherwise agreed with the Planning Secretary, the Proponent must undertake monitoring of operational noise to compare actual noise performance 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 (ONCR)** 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 the Leq and Lmax noise trigger levels and vibration trigger levels in the Rail Infrastructure Noise Guideline (EPA, 2013) 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** is to be verified by a suitably qualified and experienced noise and vibration expert. The **ONCR** 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** publicly available.

Note: 2028 and 2038 are specified as representing 12 months and 10 years after the anticipated commencement of the operations of the entire Inland Rail program. Should this timeframe change, the Proponent must seek the approval of the Planning Secretary to vary the timeframe in which to satisfy this condition.

BIODIVERSITY

E21 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.

E22 Prior to the commencement of construction, the Proponent must demonstrate to the satisfaction of the Planning Secretary that impacts to *Fuzzy Box woodland on colluvium and alluvial flats in the Brigalow Belt South Bioregion (including Pilliga)* and *Nandewar Bioregion* (PCT 202) have been avoided to the greatest extent possible. If impacts to PCT 202 as stated in Table 13.1 of the BDAR cannot be reduced, the Proponent must provide conservation measures additional to any offset requirements for this species detailed in **APPENDIX B B, SCHEDULE 1**. Avoidance, reduction and additional conservation measures must be documented in consultation with BCS and the Planning Secretary.

CONSOLIDATED APPROVAL

- E23 Impacts to plant community types and species credit species must not exceed the impacts specified in **APPENDIX B, SCHEDULE 1 (Table 1 and 2)**:
- (a) the vegetation zone impact area identified in **APPENDIX B, SCHEDULE 1 Table 1** Ecosystem Credits by Project Segment; and
 - (b) the species habitat impact area identified in **APPENDIX B, SCHEDULE 1 Table 2** Species Credits by Project Segment.
- in the *ARTC Inland Rail Narromine to Narrabri Biodiversity development assessment report – BAM 2020 Revision G dated 17/01/2023* (the BDAR Revision G).
- E24 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 BDAR Revision G, must be retired (unless a reduction in the number or classes of credits requirements has been approved in accordance with Condition E24A). The number and classes of ecosystem credits and species credits that must be retired if Condition E24A does not apply are detailed for each project segment in:
- (a) **APPENDIX B, SCHEDULE 1 Table 1** Ecosystem Credits by Project Segment; and
 - (b) **APPENDIX B, SCHEDULE 1 Table 2** Species Credits by Project Segment.
- E24A Prior to any impacts on biodiversity values occurring, the Proponent may seek the Planning Secretary's approval in writing, to reduce the number or classes of biodiversity credits required to be retired by Condition E24, only if:
- (a) the reduction in credits is due to:
 - (i) a reduction in impacts to biodiversity values from a revised construction footprint; and/or
 - (ii) the results of further targeted surveys to confirm the presence of species that were assumed present in the BDAR Revision G; and
 - (b) the proposed reduction in credits is undertaken in consultation with CPHR and DCCEEW(Cth); and
 - (c) the proposed reduction in credits is documented in a report that is accompanied by an updated Credit Report that was generated using the BAM-Calculator; and
 - (d) the report was prepared in accordance with the biodiversity assessment method, by a person accredited to apply the method; and
 - (e) for prescribed impacts, the reduced credit requirements were determined using the method used for the BDAR Revision G.
- Any reduced credit obligation may only be approved by the Planning Secretary after consulting with DCCEEW (NSW) Secretary (or delegate) and must be acquitted prior to any impacts on biodiversity values occurring.
- E24B Any proposals to stage the further surveys to confirm the presence of species credit species in accordance with Condition E24A must be prepared in consultation with CPHR and DCCEEW(Cth) and approved by the Planning Secretary prior to the survey commencing.
- E25 On the discovery of potential or actual impacts to any threatened communities or species not listed in **APPENDIX B, SCHEDULE 1**, all work which may impact the identified species or community must stop to prevent further impact and the Planning Secretary and BCS (and DCCEEW where relevant) notified in writing. Work must not recommence until the relevant agencies have been consulted and any required approvals have been obtained.
- E26 The retirement of the credits must be carried out in accordance with the *Biodiversity Conservation Act 2016*, 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.

CONSOLIDATED APPROVAL

- E27 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*.

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.

- E28 Evidence of the retirement of credits in satisfaction of **Condition E26** must be provided to the Planning Secretary prior to impacts to the biodiversity values occurring in each project segment.
- E29 For the purposes of retiring biodiversity credits, the CSSI's project segments are:

- (a) Segment 1 – Narromine South multi-function compound
- (b) Segment 2 – Curban multi-function compound
- (c) Segment 3 – Narrabri West multi-function compound
- (d) Segment 4 – Borrow pit A
- (e) Segment 5 – Borrow pit B
- (f) Segment 6 – Borrow pit C
- (g) Segment 7 – Borrow pit D
- (h) Segment 8 – Narromine to Curban alignment
- (i) Segment 9 – Curban to Pilliga alignment
- (j) Segment 10 – Pilliga alignment
- (k) Segment 11 – Pilliga to Narrabri alignment

Five-clawed Worm Skink Management Plan

- E30 The Proponent must prepare a **Five-clawed Worm Skink Management Plan (the FCWS Management Plan)** to detail how impacts on the Five-clawed Worm Skink and its habitat will be managed and minimised during the construction and operation of the CSSI. The FCWS Management Plan may be adapted from an existing FCWS Management Plan prepared by the Proponent. The FCWS Management Plan must be prepared in consultation with BCS and DCCEE. The FCWS Management Plan must be submitted to and approved by the Planning Secretary prior to Work commencing within potential FCWS habitat or prior to commencement of construction, whichever is earlier. The approved FCWS Management Plan must be implemented.

- E31 The **FCWS Management Plan** must include:

- (a) identification of potential habitat prior to Work commencing;
- (b) details of potential impacts on the species and its habitat from the construction and operation of the CSSI;
- (c) details of proposed management and mitigation measures that would be implemented during the construction and operation of the CSSI to minimise impacts to the species;
- (d) procedure for the relocation of individuals recovered before and during construction and details of the relocation sites;
- (e) goals and performance indicators to measure the success of the mitigation measures;
- (f) a procedure for recording discoveries of individuals and regular reporting to BCS and DCCEE; and
- (g) ongoing monitoring of the species and its habitat **during construction must occur**, and for a minimum of five monitoring events post-construction in suitable conditions with timing for each monitoring event being agreed with the Planning Secretary in consultation with BCS and DCCEE.

- E32 In the event that Work encounters the FCWS and the FCWS Management Plan required under **Condition E30** has not been approved by the Planning Secretary, the Proponent must stop all Work which may impact the FCWS. The Planning Secretary and BCS (and DCCEE where

relevant) must be notified in writing and Work must only recommence in accordance with **Condition E25**.

- E33 Should individual FCWS be harmed during Work, the Proponent must notify the Planning Secretary of such incidents in accordance with **Conditions A56 and A57**.

Fauna Connectivity Strategy

- E34 The Proponent must prepare and implement a **Fauna Connectivity Strategy**, to be submitted and approved by the Planning Secretary prior to the commencement of Work that will impact the biodiversity values of the CSSI.

The **Strategy** must describe the rationale for, and final design and location of, fauna connectivity structures and measures for the CSSI and must demonstrate the effectiveness of connectivity structures and measures for the targeted species.

The **Strategy** must be prepared by a suitably qualified and experienced person(s) who has expertise in the relevant targeted species, experimental design and statistical analysis in consultation with the Planning Secretary, FCNSW, BCS, DPI-Fisheries and DCCEEW.

- E35 The Strategy must provide:

- (a) details of existing fauna movement corridors, pathways and connectivity within the CSSI;
- (b) details of all connectivity structures for targeted species, including but not limited to, land bridges, bridge and culvert crossings and crossings for arboreal fauna;
- (c) details of all fauna connectivity facilitation measures, including but not limited to:
 - (i) vegetative landscaping of appropriate native flora species in the approach to connectivity structures;
 - (ii) fauna furniture both within and outside the connectivity structures; and
 - (iii) fauna exclusion fencing, including the location, design and length of fencing.
- (d) a map of the final location of each connectivity structure and associated connectivity measure;
- (e) justification for the location and design, and spacing of the connectivity structures, with reference to relevant State and Commonwealth threatened species guidelines, species biology and the results of on-ground surveys;
- (f) demonstration of the effectiveness of the connectivity structures and connectivity facilitation measures in terms of location, design and number to mitigate impacts to the relevant threatened species, and that the design will:
 - (iv) maintain or improve connectivity and movement pathways of species within regional, local and riparian corridors;
 - (v) reduce the risk of mortality for threatened species;
 - (vi) 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
 - (vii) consider the effects of connectivity structures on the maintenance or improvement of population viability and gene flow for targeted species;
- (g) the results of surveys undertaken to determine the habitat, species movement patterns, and distribution of species to confirm the design and location of the connectivity structures;
- (h) the pathways to connectivity structures must not be impeded by crossing loops, ancillary facilities, service roads and tracks, level crossings and roads that are realigned as part of the CSSI.
- (i) the maintenance of connectivity structures and measures for the life of the impact of the CSSI, including timing and frequency of maintenance actions, including after flooding events;
- (j) 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;
- (k) a seasonally-based program to monitor and report on the effectiveness of the **Strategy** and progress against the detailed performance and completion criteria which will:
 - (viii) identify the objectives, variables to be monitored, methods, performance criteria, pre-impact and post-impact periods of monitoring, ensuring that these parameters are specific, measurable, auditable, repeatable and time-bound (SMART)
 - (ix) be designed and have a sufficient pre-impact lead time to enable differentiation between:

CONSOLIDATED APPROVAL

- (a) the pre-impact situation,
 - (b) the effects of the activity (e.g. habitat clearing), and
 - (c) the effects of mitigation measures; and
- (x) include an associated Trigger Action Response Plan (TARP) for the initiation of remedial action and adaptive management if necessary;
- (l) detail who is responsible for monitoring, reviewing and implementing the Strategy; and
- (m) the outcomes of the biodiversity monitoring plan and individual threatened species management plans.

E36 The results of the monitoring under **Condition E35(k)** must be provided in an annual report and submitted to the Planning Secretary upon request to BCS, DCCEEW and relevant councils and made publicly available in accordance with **Condition B18**.

The fauna monitoring required under **Condition E35(k)** must be implemented for a period of 10 years following the commencement of operation of the CSSI to evaluate the effectiveness of fauna connectivity measures, or as otherwise agreed with the Planning Secretary.

E37 The Proponent must undertake further consultation with the Planning Secretary, FCNSW and BCS should the design of a connectivity structure in the approved **Fauna Connectivity Strategy** change. This may include changes in the dimensions, location and elevation of the approved structure. Construction of the new new/changed structure must not commence until the Planning Secretary and BCS have given their approval to the changes in the design of the connectivity structure.

Re-use of Timber

E38 Cleared native vegetation and other landscape features must be reused as part of the CSSI. 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.

FLOODING

E39 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.

Flood Modelling

E40 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 C SCHEDULE 2**. In addition the modelling must:

- (a) utilise a hydraulic model grid size no larger than 2.5m within 300m downstream of any CSSI culvert or bridge, and 100m upstream of any CSSI culvert or bridge; and
- (b) be to a standard equal to or better than that in the Preferred Infrastructure and Amendment Report referenced in **Condition A1**. In the event of any inconsistency between the flood modelling in the Preferred Infrastructure Report and the Flooding Modelling Specifications listed in **APPENDIX C SCHEDULE 2**, the Flood Modelling Specifications prevail.

Independent Peer Review of Hydraulic and Hydrological Modelling

E41 Hydraulic and hydrological flood modelling completed in accordance with **Condition E40** and **APPENDIX C SCHEDULE 2** must be independently peer reviewed.

CONSOLIDATED APPROVAL

- E42 The peer review required by **Condition E41** 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).
- E43 The peer reviewer must verify whether the flood model and the modelled final CSSI design complies with **Condition E40** and **APPENDIX C 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 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 E47**;
 - (e) review the monitoring methodologies required by **Condition E77**.
- E44 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**.
- E45 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 E69**.

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 E70**.*

Impacts on Flood Behaviour

- E46 The CSSI must be designed with the objective to meet or improve upon the flood performance identified in the PIAR referenced in **Condition A1**. Variation consistent with the requirements of this approval at the rail corridor is permitted to effect minor changes to the PIAR design with the intent of improving the flood performance of the CSSI.
- E47 The CSSI must be designed and constructed so changes in the flood behaviour comply with the following requirements, except as provided in **Condition E50** below:
- (a) will not exceed the Quantitative Design Limits (QDLs) listed in **APPENDIX CSCHEDULE 1**, as assessed in accordance with the flood modelling specifications in **APPENDIX CSCHEDULE 2**; and;
 - (b) will not redistribute peak flood flows by more than 5% at the locations shown in the Peak Flow Distribution Maps in any relevant Floodplain Management Plans.
- E48 The requirements of **Conditions E46 and E47** apply in any and all of the following circumstances:
- (a) on land located:
 - (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 PIR; and
 - (c) in any storm duration.

- E49 If the CSSI does not meet the requirements of **Condition E47** 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 E71**.
- E50 If it is not practical to modify the design of the CSSI to meet the requirements of **Condition E47**, the Proponent must, in instances of non-compliance with **Condition E47**:
- (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;
 - (e) all written agreements must be legally binding and meet any requirements of relevant legislation.

No work that may cause a non-compliance with **Condition E47** is to commence until the Flood Design Verification Report required by **Condition E67** is approved in accordance with **Condition E69**.

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.

- E51 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 E50**, to consult with landowners and roads authorities. 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;
 - (d) the process for mediation and resolution of disputes outlined in the Communications Strategy required by **Condition B2**; and
 - (e) the process for referring a disagreement to the IFIAP required by **Condition E57**;
- The Flood Design Consultation Protocol must be made publicly available in accordance with **Condition B18**.

Determination of Erosion Threshold Velocities (ETVs)

- E52 Should the Proponent seek to replace the default Erosion Threshold Velocity (**ETV**) of 0.5m/s (refer Velocity QDL in **APPENDIX CSCHEDULE 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 highly erosive floodplain soils, including black cracking clays, in Eastern Australia.
- E53 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) consider any local Floodplain Management Plans that interact with the CSSI;
 - (d) 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;
 - (e) if necessary, utilise soil classifications to infer ETVs (**Indirect Method**) from the ETVs determined using the Direct Method;
 - (f) assume worst case ground vegetation conditions, which for the majority of locations will be bare soil conditions;

CONSOLIDATED APPROVAL

- (g) 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;
 - (h) document the procedures used to determine the ETVs for all sites; and
 - (i) justify procedures used to determine the sites chosen for ETV determination using the Direct Method and the Indirect Method.
- E54 An independent peer reviewer must be appointed to review the proposed ETV methods and the Erosion Threshold Velocities Report. The independent peer reviewer must be a suitably qualified geomorphologist or scour/erosion specialist with experience in calculating the erosion threshold velocities of highly erosive floodplain soils, including black cracking clays, in Eastern Australia.
- The geomorphologist/specialist must be independent of the Proponent and the organisation(s) that prepared the flood model, 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).
- E55 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 E52** for the Planning Secretary's approval.
- E56 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 E67-E70, whichever occurs earlier.**

Independent Flood Impact Assessment Panel

- E57 Where an agreement cannot be reached in accordance with **Condition E50(d)**, either the affected landowner or the Proponent may, at any time, refer unresolved matters arising from potential and/or actual property impacts resulting from flooding exceeding the QDLs in **APPENDIX C, SCHEDULE 1** to an **Independent Flood Impact Assessment Panel (IFIAP)** for expert advice and recommendations to address the impacts of the non-compliance with the QDL.
- E58 The Proponent must establish an **Independent Flood Impact Assessment Panel (IFIAP)** before Work that has the potential to result in non-compliance with **Condition E47**. The **IFIAP** must comprise independent hydrological, engineering and agricultural experts (excluding the peer reviewer required by **Condition E44** and be chaired by an independent mediator with experience and qualifications in mediation and dispute resolution, having regard to the *Post Approval Guidance for Infrastructure Projects: Seeking Approval from the Department for the Appointment of Independent Experts* (DPIE, 2020) and approved by the Planning Secretary in accordance with **Condition A31**. All costs incurred in establishing and implementing the IFIAP must be borne by the Proponent regardless of which party makes a referral to the IFIAP.
- E59 The Proponent must draft Terms of Reference for the IFIAP that:
- (a) are consistent with the NSW Government Boards and Committees Guidelines (2015). as applicable;
 - (b) outline the frequency of meetings and timely provision of expert advice and recommendations; and
 - (c) identify cessation arrangements.
- E60 The Planning Secretary must approve the members, mediator and terms of reference of the IFIAP prior to the commencement of any works that have the potential to result in non-compliance with **Condition E47**. The approved terms of reference for the IFIAP must be endorsed by the IFIAP following the first meeting. The terms of reference must be made publicly available, as required by **Condition B18**, within one month of the establishment of the IFIAP.
- E61 Any changes requested by the IFIAP to the Terms of Reference must be submitted to the Planning Secretary for approval.
- E62 The IFIAP will be responsible for independently:

CONSOLIDATED APPROVAL

- (a) reviewing documents prepared under **Condition E50**;
 - (b) investigating landowner concerns including the procurement of supporting documentation to be prepared on behalf of landowners;
 - (c) making recommendations about the material impact of the non-compliance/s with the QDL on the use of affected land to both the landowner and Proponent; and
 - (d) preparing a report which contains reasonable recommendations about practicable design changes and/or mitigation and management measures to resolve material impacts of the non-compliance/s to both the landowner and Proponent. A copy of the report must be provided to the Planning Secretary for information upon finalisation of the report.
- E63 The Proponent must implement any recommendations of the IFIAP under **Condition E62** unless otherwise agreed in writing by the landowner. The proponent must make an offer to acquire land that would be required to mitigate or manage the impact of the non-compliance with the QDL where:
- (a) the landowner has refused or rejected the recommendations, or
 - (b) the Proponent cannot implement these recommendations other than for reasons where the landowner has refused or rejected the recommendations.
- E64 Any offer of acquisition in accordance with **Condition E63** must be made within six months of the IFIAP's recommendation, and the acquisition must be completed within 12 months of the acceptance of the offer, or as otherwise agreed between the parties. All reasonable costs associated with the acquisition must be borne by the Proponent.
- E65 A copy of any recommendation provided by the IFIAP under **Condition E63** and evidence of the Proponent's implementation of this recommendation in accordance with **Condition E63** must be provided to the Planning Secretary for information and, or if finalised, attached to the Flood Design Verification Report required by **Condition E67**.
- E66 Construction of permanent works that are the subject of or directly related to matters under consideration by the **IFIAP** (other than mitigation works recommended by the **IFIAP**) must not occur until the recommendation of the **IFIAP** has been implemented, or property acquisition processes are resolved, unless otherwise agreed by the Planning Secretary after consulting with the **IFIAP**.

Flood Design Verification Report

- E67 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 E46 to E50**.
- E68 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 CSCHEDULE 2**;
 - (v) a copy of the flood modelling outputs required to demonstrate compliance with **Condition E46 to E50**.
 - (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;
 - (d) an assessment of compliance of the final design of the CSSI with the requirements of **Conditions E46 to E48** including any site specific Erosion Threshold Velocities in accordance with **Conditions E52 to E56**, including a table of all non-compliances, and documentation of the process and outcomes required by **Condition E49 and E50**. Written agreements, in accordance with **Conditions E50(c) and E50(d)** may be provided to the Planning Secretary separate to the **FDVR**;

CONSOLIDATED APPROVAL

- (e) 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 CSCHEDULE 1** and causes the resultant velocity to exceed the erosive threshold velocity; or
 - (ii) is within an area that is actively eroding;
 - (f) identification of matters under consideration by the **IFIAP** in accordance with **Condition E57**;
 - (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*; and
 - (h) a detailed response outlining how recommendations of the independent peer reviews required by **Conditions E41 and E54** 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 E52 to E55**; and
 - (j) the **Operational Erosion Monitoring and Mitigation Program** required by **Conditions E71 to E73**.
- E69 The **Flood Design Verification Report** must be submitted to the Planning Secretary for approval at least one month prior to the commencement of construction. Construction cannot commence until the **Flood Design Verification Report** is approved by the Planning Secretary, unless the works are subject to the **IFIAP** process in accordance with **Conditions E57 to E65**.

The **Flood Design Verification Report** including the flood model and the model results must be submitted for review by EHG, DPE 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 **Conditions E41 or E54**, the Planning Secretary will consider how any findings or recommendations made by the Independent Peer Reviewer were addressed and resolved.

Interim Flood Design Verification Report

- E70 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, DPE Water and 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 E68(g)(i)**;
- (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 E41**; and
 - (ii) each of the requirements of the **FDVR** detailed in **Condition E68**; and
- (e) detail the process for revising the **FDVR** in response to comments provided on the interim **FDVR**.

The Final **FDVR** required by **Condition E68** must include a summary of comments received on the Interim **FDVR** and how these were addressed.

Operational Erosion Mitigation and Monitoring Program

CONSOLIDATED APPROVAL

- E71 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 CSCHEDULE 1** and causes the resultant velocity to exceed the erosive threshold; or
 - (b) is within an area that is actively eroding.
- E72 The **OEMMP** must be prepared in consultation with BCS, DPE Water, relevant council(s) and landowner(s).
- E73 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 E68** and any agreements for mitigation measures outside the rail corridor required by **Condition E50(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 E71 and E50**, 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 pre-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 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 E69**.

A copy of the monitoring results with appropriate commentary must be submitted to the Planning Secretary for information, within one month 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.

Note: The requirements of **Conditions E71 to E73** apply in addition to the requirements of **Condition E49**.

Flood Emergency Response Plan (FERP) for Flood Risks within the Rail Corridor

- E74 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 NSW Floodplain Development Manual.
 - (c) be appended to the Flood Design Verification Report.

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

CONSOLIDATED APPROVAL

E75 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;
- (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 E74**).

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.

Flood Review after Construction

E76 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. 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 PIR and the Flood Design Verification Report required by **Condition E67**;
- (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 E47**:
 - (i) determine if the exceedance is attributable to the CSSI, and
 - (ii) where the cause is attributable to the CSSI, identify measures that would be implemented to reduce future adverse impacts of flooding from similar events related to the CSSI, including the timing and 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.

E77 To analyse the lengths of rail corridor impacted by rainfall and consequential flood events for the purposes of **Condition E76**, the Proponent must develop spatially defined monitoring zones and associated monitoring methodologies for the flood catchments modelled in the PIR. The monitoring methodologies shall 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 DPE EHG and DPE Water and submitted to the Planning Secretary for information within six (6) months prior to the commencement of operation of the CSSI.

Information Sharing

E78 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, DPE EHG and the SES upon request. The relevant councils, TfNSW, DPE EHG 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, DPE EHG or the SES must be provided within three (3) months of the request.

WATER QUALITY AND DRAINAGE

E79 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.

E80 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 E50** and **E62**;
- (c) ensure that there is no permanent interception of, and/or connection with, groundwater;
- (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.

E81 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.

E82 Prior to construction, the Proponent must consult with the landowner and/or relevant roads authority that is located immediately adjacent to the new or upgraded culvert 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.

Construction Requirements

CONSOLIDATED APPROVAL

- E83 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.

Watercourse Rehabilitation Strategy

- E84 A **Watercourse Rehabilitation Strategy** must be prepared by a qualified geomorphologist, that sets out the rehabilitation of rivers, tributaries and watercourses impacted by the CSSI throughout construction and two months following construction completion. The **Watercourse Rehabilitation Strategy** must include, but not be limited to:

- (a) details of the existing environment;
- (b) details of the proposed rehabilitation measures; and
- (c) a staged timeframe for the implementation of the mitigation measures during construction and for two months following completion of construction.

The **Watercourse Rehabilitation Strategy** must be prepared based on *A Rehabilitation Manual of Australian Streams* (Rutherford et al. 2000) and in consultation with affected landowners/landholders, DPI Fisheries and DPE Water. The strategy must be applied during construction and two months following completion of construction or until the affected environment is appropriately rehabilitated.

The Rehabilitation Strategy must be submitted to and approved by the Planning Secretary prior to commencement of construction.

Water reuse

- E85 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 for water;
- (b) details of the preferred reuse option(s), including:
 - (i) volumes of water be reused;
 - (ii) proposed reuse locations and/or activities;
 - (iii) proposed treatment (if required); and
 - (iv) 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 timeframe for the implementation of the preferred reuse option(s).

The **Water Reuse Strategy** must be prepared based on best practice and in consultation with DPE Water, EPA and relevant council(s). The Strategy must be applied during construction and operation.

The **Water Reuse Strategy** for construction must be submitted to and approved by the Planning Secretary prior to the commencement of construction.

Note: *Nothing in this condition prevents the Proponent from preparing separate or combined **Water Reuse Strategies** for the construction and operational phases of the CSSI.*

- E86 Prior to the commencement of works that may intercept or extract groundwater or surface water, licensing and approvals under the *Water Management Act 2000* must be obtained.

GROUNDWATER

- E87 Further modelling must be undertaken of groundwater drawdown, borrow pit inflows and associated potential flow reductions to existing bores with 1km of bore pit fields before finalising the detailed design of the bores and undertaking any works that would impact on groundwater flows, interactions with surface water, hydraulic connectivity with underlying geology and groundwater levels. The modelling must be undertaken in consultation with DPE Water, include calibration to at least 12 continuous months of baseline groundwater monitoring data, unless otherwise agreed with the Planning Secretary, and provide quantitative analysis of predictive uncertainty.
- E88 The results of the modelling required by **Condition E87** must be documented in a **Groundwater Modelling Report** and submitted to the Planning Secretary for information. The **Groundwater Modelling Report** must be finalised in accordance with the Australian Groundwater Modelling Guidelines (National Water Commission, 2012), be independently peer reviewed by an expert (agreed to by DPE Water) and prepared in consultation with DPE Water. The **Groundwater Modelling Report** must include, but not be limited to:
- (a) justification for the conceptual model adopted and layer choice;
 - (b) specification and justification of the grid based hydraulic conductivity and storage parameters (specific yield and specific storage) assigned to each layer and/or zone with reference to those values determined from data analyses and relevant scientific literature;
 - (c) an explanation of how groundwater flow was simulated within each model layer with reference to confined, unconfined or variably saturated flow;
 - (d) details (including figures) of the expected changes in groundwater flow directions in the vicinity of proposed borefields and borrow sites, and existing licensed bores;
 - (e) cross-section diagrams of geology showing baseline groundwater levels in the monitoring piezometers, and for the predicted baseline condition groundwater levels in 2030;
 - (f) statistical evaluation of the model's calibration and model parameter uncertainty;
 - (g) details of the groundwater monitoring data inputs (levels and quality);
 - (h) details of the proposed groundwater model update and recalibration as additional data is collected;
 - (i) assessment of construction and/or ongoing impacts of groundwater drawdown and make good provisions, taking into consideration the trade dealing impact assessment criteria, including potential impacts on licensed bore water supply, quality or quantity and groundwater dependent ecosystems.
 - (j) a comparison of the results with the modelling results detailed in the documents referred to in **Condition E87**;
 - (k) documentation of the measures that would be implemented to manage and/or mitigate groundwater impacts and the resulting residual groundwater impacts, including impacts not previously identified or identified but at a smaller scale;

A copy of the **Groundwater Modelling Report** (including the independent peer review) must be submitted to the Planning Secretary for information prior to construction. The **Groundwater Modelling Report** must include details of consultation with DPE Water.

The calibration and modelling to be provided to the independent peer reviewer and DPE Water must be in an electronic quality-controlled data ready-to-use format.

Note: *The new modelling results could include analysis of the available field data and existing model calibration residuals to infer the differences between rock mass primary permeability (low) and secondary permeability (high) in areas where valley uplift has occurred and where dykes have intruded through weaker rock. The numerical model calibration could then be revised to potentially improve the calibration to observed data and local-scale predictions.*

Groundwater Bores

- E89 Impacts to existing licensed groundwater bores (i.e. decommissioning, water supply, quality or quantity of water) during construction or operation of the CSSI must be mitigated. Appropriate compensation must be provided, or alternative water supply arrangements made, as agreed with the relevant landowner/landholder.

CONSOLIDATED APPROVAL

- E90 Groundwater bores are to be constructed by appropriately licensed drillers in accordance with the *Minimum Construction Requirements for Water Bores in Australia* (National Uniform Drillers Licensing Committee, 2020) and the relevant requirements of each Water Sharing Plan.
- E91 In consultation with DPE Water, government monitoring bores that are decommissioned in accordance with the *Minimum construction Requirements for Water Bores in Australia* (National Uniform Drillers Licensing Committee, 2020) as part of the CSSI are to be replaced within 18 months of decommissioning.
- E92 Prior to construction of proposed bore fields, a **Borefield Management Plan** must be prepared by a qualified hydrogeologist, in consultation with DPE Water and submitted to the Planning Secretary for information, which must:
- (a) include locations, water source, depth and proposed potable and non-potable volumes of groundwater take per year;
 - (b) identify measures to minimise potential impacts of extracting groundwater, including mitigation of impacts to existing licenced groundwater bores in accordance with **Condition E89**;
 - (c) provide confirmation that water sharing plan rules have been met;
 - (d) provide details of metering; and
 - (e) include evidence that decommissioned government monitoring bores are replaced within 18 months in consultation with DPE Water.

The **Borefield Management Plan** must be implemented.

Groundwater and Surface Water Monitoring Program

- E93 A **Groundwater and Surface Water Monitoring Program** must be prepared in consultation with DPE Water for construction and operation. The **Groundwater and Surface Monitoring Program** must include, but not be limited to:
- (a) identify groundwater and surface water monitoring locations, frequency and duration at discharge points and selected watercourses where works are being undertaken;
 - (b) identify groundwater and surface water monitoring parameters;
 - (c) include water quality objectives, parameters and criteria from Technical Report 5 as per 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) a framework for periodic reviews of the groundwater monitoring network to determine its effectiveness and if additional monitoring bores are required. The review must be based on actual results of existing monitoring and groundwater modelling findings ensuring volumes stipulated within the license requirements are not exceeded;
 - (f) results from existing groundwater monitoring bores and from additional groundwater monitoring bores required following the review of the groundwater monitoring bore network required in **Condition E92**;
 - (g) daily measurement of the amount of water and quality discharged from the water treatment plants, where required;
 - (h) 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)
 - (i) design groundwater treatment systems to ensure relevant water quality criteria from the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* (AZNG, 2018);
 - (j) monitoring of groundwater levels, electrical conductivity and temperature in aquifers/groundwater bores adjacent to or intersected by the CSSI alignment, at an adequate depth, in consultation with DPE Water;
 - (k) monitoring of the quantity, quality and reporting of groundwater at groundwater bores required by the CSSI (in particular Narramine North and Baradine worker accommodation sites) and inflow into Borrow Pit A;
 - (l) 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;
- (m) methods to record or otherwise estimate and report groundwater inflows into bores and borrow pits;
 - (n) trigger points for responding to any monitored changes which adversely impact on groundwater dependent ecosystems or 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 DPE Water);
 - (o) methods for providing the data collected under (e) and (f) to the relevant water authority where discharges are directed to their assets; and
 - (p) a method for providing the groundwater and surface water monitoring data to DPE Water every six months during construction for a minimum period of two years, consistent with **Condition E94**.

Notes:

1. *The intent of (e) is to ensure that groundwater monitoring bores that no longer provide data suitable to determine changes to groundwater levels as a result of the CSSI are considered in a review of the groundwater monitoring bore network and additional monitoring bores installed where there are gaps. New monitoring locations or sites must be determined in accordance with **Condition E88**.*
2. *With regards to monitoring data to be provided to DPE Water, the format of the dataset must be both in a tabulated and electronic quality-controlled data (.csv, Excel) ready to use format.*

- E94 Groundwater monitoring must continue for a period of at least two years (at intervals of six months) following the completion of construction. During the two year monitoring period at appropriate intervals, the Proponent must undertake a review of all collected and collated groundwater monitoring data, ascertain any measured or incidental impact against the predicted impacts from the groundwater modelling for the final design construction phase, and define future monitoring requirements in consultation with DPE Water. The review must determine if additional monitoring is required, and the time period for continued monitoring. The Proponent must notify the Planning Secretary within two weeks of the review as to the outcomes of the review and implement any requirements for future monitoring.
- E95 The **Groundwater and Surface Water Monitoring Program** for construction must be submitted to and approved by the Planning Secretary before construction and the **Groundwater and Surface Water Monitoring Program** for operation must be submitted to and approved by the Planning Secretary before operation.

Note: Nothing in this condition prevents the Proponent from preparing separate or combined **Groundwater and Surface Water Monitoring Programs** for the construction and operational phases of the CSSI.

TRAFFIC, TRANSPORT AND ACCESS

- E96 Construction traffic must not use local roads or privately-owned roads (other than to avoid direct access from ancillary facilities and construction sites to the Newell Highway) unless no alternative access is available. Use of private access roads must be in accordance with **Conditions A26 and A27**. Local or privately owned roads used for access to ancillary facilities, construction sites, borrow sites and temporary accommodation must be identified in the Construction Traffic, Transport and Access Management Sub-plan required by **Condition C6**.
- E97 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.

Level Crossing Treatment Reports

- E98 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:

CONSOLIDATED APPROVAL

- (a) illustrate the location of all public level crossings which traverse the CSSI.
- (b) identify all level crossings proposed for grade separation under separate planning approvals;
- (c) demonstrate that the design and location of level crossings does not preclude future upgrades such as grade separation of those crossings;
- (d) list, and identify on a figure, any public level crossings that will be closed or upgraded, including the type of treatment proposed where a level crossing is to be upgraded;
- (e) where no works are proposed at a public crossing, provide reason for the decision;
- (f) include measures to avoid potential short-stacking at level crossings; and
- (g) 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.

- E99 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 E105**, noting that any new, closure, relocation or modification must be in accordance with *AS/R/ISSB 7658:2012 Railway Infrastructure – Railway Level Crossing* and relevant rail safety legislation. The Proponent must consult with relevant landowners on the design of the crossing and where consistent with relevant safety standards and legislation, incorporate reasonable landowner requirements into the design.

- E100 The **Public Level Crossing Treatment Report** and **Private Level Crossing Treatment Report** must be submitted to the Planning Secretary for approval 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.

Level Crossing Performance Report

E101 In 2026 and 2038, 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 E98**;
- (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.

Note: 2028 and 2038 are specified as representing 12 months and 10 years after the anticipated commencement of operation of the entire Inland Rail project. Should this timeframe change, the Proponent should seek the approval of the Planning Secretary to vary the timeframe in which to satisfy this condition.

E102 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.

E103 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 submitted to the Planning Secretary, TfNSW and relevant road authority for information within 60 days of its completion.

Property Access

E104 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 E105**.

CONSOLIDATED APPROVAL

- E105 **Individual Property Management Plans** must be prepared to document the results of consultation with each landowner 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.*

- E106 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.

- E107 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.

- E108 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.

- E109 The Proponent must implement and maintain a communication system for the advanced real-time tracking and warning of train movements for landowners and stock operators to minimise impacts to business and livestock operations with new or altered access arrangements resulting from the CSSI. The advanced warning system must be developed in consultation with stakeholders, landowners, stock operators and Local Land Services, and be operational prior to the commencement of operation.

Travelling Stock Routes

- E110 The Proponent must provide a safe and functional stock route to the stock crossings of the CSSI and the Newell Highway as an alternative to the stock route upgrade proposed for TSR R27999 described in the documents listed in **Condition A1**. This may include additionally acquired land to enable the TSR to achieve equivalent functionality to TSR R27999 and maintain animal and human comfort and safety. The alternative crossings must be designed with sufficient capacity for anticipated stock movements and be located to maintain convenient access for existing users of TSR R27999.

- E111 The stock route outcomes required by **Condition E110** must be designed in consultation with North West Local Land Services, TfNSW and TSR users and be peer reviewed by an independent veterinarian livestock behaviourist. Details of the alternative stock route arrangement must be provided to the Planning Secretary for approval within 24 months of the date of this CSSI approval and must be implemented prior to operation of the CSSI.

- E112 All other Travelling Stock Reserves impacted by the alignment must be provided underpasses with appropriate dimensions (height and width clearances), and be maintained to those clearances, to ensure animal and human comfort and safety, in consultation with Local Land Services.

Road Safety

- E113 Before any 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. A copy of the Road

CONSOLIDATED APPROVAL

Dilapidation Report must be provided to the relevant road authority(ies) and landowners 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.

E114 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 before heavy haulage commences, at no cost to the owner.

E115 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 (or one month for private and Forestry Corp managed roads), either (at the landowner or 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 E113**; or
- (b) compensate the relevant road authority(ies) and landowner for the damage so caused. The amount of compensation may be agreed with the relevant road authority(ies) and landowners, 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.

E116 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.

E117 The design of any new road overbridges or new or modified roads must be endorsed by the relevant roads authority prior to construction of the new road overbridges or new or modified roads.

E118 For all new overbridges, new or modified roads, and new or modified level crossings provided as part of the CSSI, the Proponent must undertake a Safe System Assessment in accordance with the Austroads *Safe System Assessment Framework* and Austroads Guide to Traffic Management Part 13: *Safe Systems Approach to Transport Management* in consultation with the relevant roads authority.

For all areas identified by the Safe Systems Assessment as requiring further assessment, 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*. Audit findings and recommendations must be actioned before construction of the relevant infrastructure and must be made available to the Planning Secretary on request.

Pedestrian and Cyclist Access

E119 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.

CONSOLIDATED APPROVAL

Country Rail Network Interface

E120 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.

SOCIAL IMPACTS

Social Impact Management Plan

E121 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 2021) by suitably qualified and experienced person(s) in the social sciences in accordance with Appendix B of the *Social Impact Assessment Guideline* (DPE 2021);
- (b) be developed with involvement from directly affected communities and businesses, LALC/s, community organisations and representative groups, and councils identified in consultation with the **SA**;
- (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
- (f) include the requirements of **Condition A44**; 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 C4 and C5**. The SIMP must be implemented.

E122 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 (a) 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 *SIA Guideline* (DPIE 2021), 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 adaptive management measures implemented or proposed.

Reporting on the social impact performance of the CSSI, including monitoring results, must be reported quarterly and reviewed by the **Social Advisor** with the results made publicly accessible in accordance with **Condition B18**.

Temporary Workforce Accommodation Facilities

E123 Temporary workforce accommodation facilities (including the mobile accommodation facilities at general compound sites) must be established prior to any construction requiring non-local labour (excluding establishment of the accommodation facilities). The accommodation facilities must be designed to ensure sufficient capacity to house the peak workforce and operated so as to ensure for the surrounding community and accommodation facility occupants:

CONSOLIDATED APPROVAL

- (a) environmental amenity, particularly in relation to noise, air quality and lighting; and
- (b) security, in particular for vulnerable community members and workers.

- E124 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.
- E125 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**.
Note: Delivery servicing refers to activities associated with providing goods and services to an operational temporary workforce accommodation facility.
- E126 Outdoor recreation areas of the accommodation facilities can only be used between 7.00am and 10.00pm daily.
- E127 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.
- E128 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.

CODE OF CONDUCT

- E129 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 endorsed by the SA prior to submission to the Planning Secretary for information 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.
- E130 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 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) Processes for responding to and addressing community complaints about the behaviour and conduct of employees.
- E131 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 made with the SA and approved by the ER. The updated Code of Conduct must be provided to the Planning Secretary for information within one month of approval.

BUSHFIRE MANAGEMENT

- E132 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) 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

CONSOLIDATED APPROVAL

- 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);
- (iii) incorporates the recommendations of a fire risk assessment as per TfNSW design standards;
- (b) ensure that buildings within the compounds and temporary workforce accommodation facilities comply with Australian Standard AS3959-2018 Construction of buildings in bushfire-prone areas (or equivalent) and RFS's Planning for Bushfire Protection 2019;
- (c) develop procedures to manage fire hazard and potential fires on site, in consultation with the RFS, FCNSW and FRNSW;
- (d) assist the RFS, FRNSW and emergency services as much as practicable if there is a fire in the vicinity of the site; and
- (e) notify the relevant local emergency management committee following completion of construction of the development, and prior to commencing operations.

Bushfire Emergency Plan

E133 Prior to commencing construction, the Proponent must develop and implement a comprehensive **Bushfire Emergency Plan** and detailed emergency procedures for the development, in consultation with RFS and FCNSW, and provide a copy of the plan to the local Fire Control Centre. The plan must be consistent with:

- (a)
 - (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;
- (k) include bushfire emergency management planning;
- (l) include details of the how RFS and FCNSW 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.

SPOIL MOUNDS

E134 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

CONSOLIDATED APPROVAL

- (d) outside the drip lines of trees located on private property.

Note: For the purpose of Condition E134(d), the Proponent must not affect trees outside of the rail corridor for the purpose of preventing those trees' driplines overhanging spoil mounds.

E135 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**;
- (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 prior to operation of the CSSI.

VISUAL AMENITY AND LANDSCAPE IMPACTS

E136 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 4282-1997 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.

E137 The Proponent must prepare 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 in 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 provided to the Planning Secretary for approval no later than six (6) months after the commencement of construction of the CSSI.

HERITAGE

- E138 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.
- E139 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 E155**.
- E140 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 C6**.

Non-Aboriginal Heritage

- E141 The Proponent must undertake **Heritage Photographic Archival Recordings** of heritage items and potential heritage items associated with the CSSI which have been identified for demolition in the documents listed in **Condition A1**.
- E142 Archival recording must be undertaken by a suitably qualified heritage specialist and prepared in accordance with *NSW Heritage Office's How to Prepare Archival Records of Heritage Items* (1998) and *Photographic Recording of Heritage Items Using Film or Digital Capture* (2006). A copy must be provided to Heritage NSW and the relevant Council.
- The photographic recording of items with potential heritage significance but no statutory listing may be undertaken in accordance with ARTC's Archival Recording Standard.

Aboriginal Cultural Values and Heritage

- E143 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.
- E144 The Registered Aboriginal Parties (RAPs) must be kept involved in the CSSI in accordance with **Conditions B1** and **B2**. The RAPs must continue to be provided with regular opportunities to be consulted about the Aboriginal cultural heritage management requirements of the CSSI.
- E145 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.

Aboriginal Cultural Values Plan

- E146 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.

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.

CONSOLIDATED APPROVAL

- E147 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.
- E148 The Proponent is to avoid impacting on potential Aboriginal heritage as a result of cumulative impacts with other Inland Rail projects. Where avoidance is not possible, justification and mitigation measures to be provided to the Planning Secretary.
- E149 Prior to the commencement of any work within areas identified as requiring archaeological investigation or salvage identified in documents listed in **Condition A1**, the Proponent must prepare an **Aboriginal Archaeological Test Excavation Methodology**. Following analysis of the test excavation results, the Proponent must prepare an **Aboriginal Archaeological Salvage Excavation Methodology**.
- E150 The **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.
- E151 At the completion of Aboriginal cultural heritage 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 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).
- E152 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** (ACHAR; JacobsGHD, 2020) and Addendum ACHAR (JacobsGHD;2022) have been completed.
- E153 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.
- E154 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 E155** and include registration in the Aboriginal Heritage Information Management System (AHIMS).

Unexpected Heritage Finds

- E155 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.
- E156 The **Unexpected Heritage Finds and Human Remains Procedure**, as submitted to the Planning Secretary, must be implemented for the duration of Work.

CONSOLIDATED APPROVAL

***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.*

LAND USE AND PROPERTY

Condition Surveys and Rectification

- E157 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.
- E158 After completion of construction, condition surveys of all items for which condition surveys were undertaken in accordance with **Condition E157** 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.
- E159 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.

Rehabilitation of Borrow Sites

- E160 Borrow sites must be rehabilitated consistent with the Rehabilitation Strategy prepared as part of the documents listed in **Condition A1** and in accordance with the Borrow Sites Management Plan required in **Condition C14**.

Borrow sites must be rehabilitated within six (6) months of the site/s no longer being required for the CSSI.

***Note:** This approval does not permit use of the borrow sites for any purpose other than this CSSI project. Any proposed other future use is subject to any required approvals under the EP&A Act.*

- E161 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.

SUSTAINABILITY

- E162 The CSSI must achieve a minimum 'excellent' rating for both 'Design' and 'As built' civil works, under the Infrastructure Sustainability Council infrastructure rating tool [version 1.2], or through the use of an equivalent process or an equivalent level of performance using a demonstrated equivalent rating tool.

SOILS

- E163 Prior to the commencement of any work, 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'.

Contaminated sites

- E164 In the event that soils suspected to be contaminated are unexpectedly found, the Proponent must engage a suitably experienced and qualified contaminated land consultant to undertake further investigations to determine the type and extent of any contamination. The investigation must be

CONSOLIDATED APPROVAL

undertaken in accordance with guidelines made or approved under the *Contaminated Land Management Act 1997* (NSW). The results of the investigation must be documented in a Site Contamination Assessment Report.

- E165 Where the results of site investigations required by **Condition E164** indicate that the contamination poses unacceptable risks to human health or the environment under either the present or proposed land use, the Proponent must engage a suitably experienced and qualified contaminated land consultant to develop and implement any necessary remediation measures. The remediation measures must be documented in a Remediation Report
- E166 If remediation is required under **Condition E165**, a Site Audit Statement and Site Audit Report must be prepared by a NSW EPA Accredited Site Auditor. Contaminated land must not be used for the purpose approved under the terms of this approval until a Site Audit Statement determines the land is suitable for that purpose and any conditions on the Site Audit Statement have been complied with.
- E167 Nothing in **Conditions E164** to **E166** prevents the Proponent from preparing a single Site Contamination Report or Remediation Report or obtaining a single Site Audit Statement and Site Audit Report for the entire CSSI.
- E168 An **Unexpected Finds Procedure for Contamination** must be prepared before the commencement of Work and must be followed should unexpected contamination or asbestos (or suspected contamination) be excavated or otherwise discovered. The procedure must include details of who will be responsible for implementing the unexpected finds procedure and the roles and responsibilities of all parties involved. The procedure must be submitted to the Planning Secretary for information.
- E169 The **Unexpected Finds Procedure for Contamination** must be implemented throughout Work.

AIR QUALITY

- E170 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.

WASTE

- E171 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 E173**.
- E172 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.
- E173 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 if in Queensland, to any site meeting applicable Queensland legislation and regulations, or to any other place that can lawfully accept such waste.

CONSOLIDATED APPROVAL

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.

- E174 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.

APPENDIX A WRITTEN INCIDENT NOTIFICATION AND REPORTING REQUIREMENTS

- 1) 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 A56** or, having given such notification, subsequently forms the view that an incident has not occurred.
- 2) Written notification of an incident must:
 - (a) identify the CSSI and application number;
 - (b) provide details of the incident (date, time, location, a brief description of what occurred and why it is classified as an incident);
 - (c) identify how the incident was detected;
 - (d) identify when the Proponent became aware of the incident;
 - (e) identify any actual or potential non-compliance with conditions of approval;
 - (f) describe what immediate steps were taken in relation to the incident;
 - (g) identify further action(s) that will be taken in relation to the incident; and
 - (h) identify a project contact for further communication regarding the incident.
- 3) Within 30 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.
- 4) The Incident Report must include:
 - (a) a summary of the incident;
 - (b) outcomes of an incident investigation, including identification of the cause of the incident;
 - (c) details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence; and
 - (d) details of any communication with other stakeholders regarding the incident.

APPENDIX B BIODIVERSITY

SCHEDULE 1 BIODIVERSITY CREDIT REQUIREMENTS

Table 1 Ecosystem Credits by Project Segment

Vegetation zones by segment	Impact area (ha)	Ecosystem credits required	Additional prescribed impact credits	Total ecosystem credits required with prescribed impacts
SEGMENT 1 – Narromine multi-function compound				
PCT 49 Partly derived Windmill Grass - copperburr alluvial plains shrubby grassland of the Darling Riverine Plains Bioregion and Brigalow Belt South Bioregion (Good)	11.7	437	0	437
PCT 88 Pilliga Box - White Cypress Pine - Buloke shrubby woodland in the Brigalow Belt South Bioregion (Good)	3.6	66	0	66
SEGMENT 1 – TOTAL ecosystem credits required		503	0	503
SEGMENT 2 – Curban multi-function compound				
PCT 88 Pilliga Box - White Cypress Pine - Buloke shrubby woodland in the Brigalow Belt South Bioregion (Good)	1.5	37	0	37
SEGMENT 2 – TOTAL ecosystem credits required		37	0	37
SEGMENT 3 – Narrabri multi-function compound				
PCT 78 River Red Gum riparian tall woodland / open forest wetland in the Nandewar Bioregion and Brigalow Belt South Bioregion (Good)	0.2	9	0	9
PCT 148 Dirty Gum - Buloke - White Cypress Pine - ironbark shrubby woodland on deep sandy soils in the Liverpool Plains region of the Brigalow Belt South Bioregion (Good)	6.4	164	0	164

CONSOLIDATED APPROVAL

Vegetation zones by segment	Impact area (ha)	Ecosystem credits required	Additional prescribed impact credits	Total ecosystem credits required with prescribed impacts
PCT 148 Dirty Gum - Buloke - White Cypress Pine - ironbark shrubby woodland on deep sandy soils in the Liverpool Plains region of the Brigalow Belt South Bioregion (DNG)	86.6	1,357	0	1,357
SEGMENT 3 – TOTAL ecosystem credits required		1,530	0	1,530
SEGMENT 4 – Borrow pit A and haul road				
PCT 185 Dwyer's Red Gum - White Cypress Pine - Currawang shrubby woodland mainly in the NSW South Western Slopes Bioregion (Good)	1.4	50	0	50
SEGMENT 4 – TOTAL ecosystem credits required		50	0	50
SEGMENT 5 – Borrow pit B and haul road				
PCT 255 Mugga Ironbark - Buloke - Pilliga Box - White Cypress Pine shrubby woodland on sandstone in the Dubbo region, south-western Brigalow Belt South Bioregion (Good)	4.3	99	0	99
SEGMENT 5 – TOTAL ecosystem credits required		99	0	99
SEGMENT 6 – Borrow pit C and haul road				
PCT 88 Pilliga Box - White Cypress Pine - Buloke shrubby woodland in the Brigalow Belt South Bioregion (Good)	0.4	7	0	7
PCT 255 Mugga Ironbark - Buloke - Pilliga Box - White Cypress Pine shrubby woodland on sandstone in the Dubbo region, south-western Brigalow Belt South Bioregion (Good)	7.9	127	0	127
SEGMENT 6 – TOTAL ecosystem credits required		134	0	134
SEGMENT 7 – Borrow pit D and haul road				
PCT 398 Narrow-leaved Ironbark - White Cypress Pine - Buloke tall open forest on lower slopes and flats in the Pilliga Scrub and surrounding forests in the central north Brigalow Belt South Bioregion (Good)	2.6	61	0	61

CONSOLIDATED APPROVAL

Vegetation zones by segment	Impact area (ha)	Ecosystem credits required	Additional prescribed impact credits	Total ecosystem credits required with prescribed impacts
PCT 746 Brown Bloodwood - cypress - ironbark heathy woodland in the Pilliga region of the Brigalow Belt South Bioregion (Good)	2.1	36	0	36
SEGMENT 7 – TOTAL ecosystem credits required		97	0	97
SEGMENT 8 – Alignment (Narromine to Curban)				
PCT 36 River Red Gum tall to very tall open forest / woodland wetland on rivers on floodplains mainly in the Darling Riverine Plains Bioregion (Good)	5.8	132	0	132
PCT 49 Partly derived Windmill Grass - copperburr alluvial plains shrubby grassland of the Darling Riverine Plains Bioregion and Brigalow Belt South Bioregion (Good)	113.8	3,526	0	3,526
PCT 55 Belah woodland on alluvial plains and low rises in the central NSW wheatbelt to Pilliga and Liverpool Plains regions (Good)	3.1	72	0	72
PCT 56 Poplar Box - Belah woodland on clay-loam soils on alluvial plains of north- central NSW (Good)	19.8	670	0	670
PCT 56 Poplar Box - Belah woodland on clay-loam soils on alluvial plains of north- central NSW (DNG)	18.4	369	0	369
PCT 78 River Red Gum riparian tall woodland / open forest wetland in the Nandewar Bioregion and Brigalow Belt South Bioregion (Good)	3.1	76	0	76
PCT 81 Western Grey Box - cypress pine shrub grass shrub tall woodland in the Brigalow Belt South Bioregion	0.9	36	0	36
PCT 88 Pilliga Box - White Cypress Pine - Buloke shrubby woodland in the Brigalow Belt South Bioregion (Good)	142	2,346	0	2,346
PCT 88 Pilliga Box - White Cypress Pine - Buloke shrubby woodland in the Brigalow Belt South Bioregion (DNG)	49.0	556	0	556
PCT 88 Pilliga Box - White Cypress Pine - Buloke shrubby woodland in the Brigalow Belt South Bioregion (Low)	1.7	28	0	28

CONSOLIDATED APPROVAL

Vegetation zones by segment	Impact area (ha)	Ecosystem credits required	Additional prescribed impact credits	Total ecosystem credits required with prescribed impacts
PCT 202 Fuzzy Box woodland on colluvium and alluvial flats in the Brigalow Belt South Bioregion (including Pilliga) and Nandewar Bioregion (Good)	3.6	179	0	179
PCT 206 Dirty Gum - White Cypress Pine tall woodland of alluvial sand (sand monkeys) in the Darling Riverine Plains Bioregion and Brigalow Belt South Bioregion (Good)	10.1	269	0	269
PCT 244 Poplar Box grassy woodland on alluvial clay-loam soils mainly in the temperate (hot summer) climate zone of central NSW (wheatbelt) (Good)	15.4	274	0	274
PCT 248 Mixed box eucalypt woodland on low sandy-loam rises on alluvial plains in central western NSW (Good)	16.3	481	0	481
PCT 394 Narrow - leaved Ironbark - White Cypress Pine woodland on slopes and flats in the Coonabarabran - Pilliga Scrub regions (Good)	4.2	70	0	70
PCT 394 Narrow - leaved Ironbark - White Cypress Pine woodland on slopes and flats in the Coonabarabran - Pilliga Scrub regions (DNG)	15.4	233	0	233
PCT 469 White Cypress Pine - Narrow-leaved Ironbark - Buloke grassy open forest of the Dubbo region, southern Brigalow Belt South Bioregion	1.0	14	0	14
PCT 599 Blakely's Red Gum - Yellow Box grassy tall woodland on flats and hills in the Brigalow Belt South Bioregion and Nandewar Bioregion (Good)	3.0	118	0	118
SEGMENT 8 – TOTAL ecosystem credits required		9,449	0	9,449
SEGMENT 9 – Alignment (Curban to Pilliga)				
PCT 27- Weeping Myall open woodland of the Darling Riverine Plains bioregion and Brigalow Belt South Bioregion (Good)	6.5	173	0	173
PCT 49 Partly derived Windmill Grass - copperburr alluvial plains shrubby grassland of the Darling Riverine Plains Bioregion and Brigalow Belt South Bioregion (Good)	166.3	5,087	0	5,087

CONSOLIDATED APPROVAL

Vegetation zones by segment	Impact area (ha)	Ecosystem credits required	Additional prescribed impact credits	Total ecosystem credits required with prescribed impacts
PCT 78 River Red Gum riparian tall woodland / open forest wetland in the Nandewar Bioregion and Brigalow Belt South Bioregion (Good)	14.1	319	0	319
PCT 88 Pilliga Box - White Cypress Pine - Buloke shrubby woodland in the Brigalow Belt South Bioregion (Good)	84.9	1,516	0	1,516
PCT 88 Pilliga Box - White Cypress Pine - Buloke shrubby woodland in the Brigalow Belt South Bioregion (DNG)	4.6	62	0	62
PCT 145 Western Rosewood - Wilga - Wild Orange - Belah low woodland of the Brigalow Belt South Bioregion and eastern Darling Riverine Plains bioregion (Good)	65.1	900	0	900
PCT 145 Western Rosewood - Wilga - Wild Orange - Belah low woodland of the Brigalow Belt South Bioregion and eastern Darling Riverine Plains bioregion (DNG)	5.8	92	0	92
PCT 244 Poplar Box grassy woodland on alluvial clay-loam soils mainly in the temperate (hot summer) climate zone of central NSW (wheatbelt) (Good)	28.5	1,015	0	1,015
PCT 397 Poplar Box - White Cypress Pine shrub grass tall woodland of the Pilliga-Warialda region, Brigalow Belt South Bioregion (Good)	2.9	57	0	57
PCT 435 White Box – White Cypress Pine shrub grass hills woodland in the Brigalow Belt South bioregion and Nandewar bioregion (Good)	0.3	20	0	20
PCT 435 White Box – White Cypress Pine shrub grass hills woodland in the Brigalow Belt South bioregion and Nandewar bioregion (DNG)	5.1	128	0	128
PCT 444 Silver-leaved Ironbark grassy tall woodland on clay-loam soils on plains in	1.7	74	0	74
PCT 589 White Box - White Cypress Pine - Silver-leaved Ironbark grassy woodland on mainly clay loam soils on hills mainly in the Nandewar Bioregion (Good)	0.6	14	0	14
SEGMENT 9 – TOTAL ecosystem credits required		9,457	0	9,457
SEGMENT 10 – Alignment (Pilliga)				
PCT 49 Partly derived Windmill Grass - copperburr alluvial plains shrubby grassland of the Darling Riverine Plains Bioregion and Brigalow Belt South Bioregion (Good)	4.3	95	0	95

CONSOLIDATED APPROVAL

Vegetation zones by segment	Impact area (ha)	Ecosystem credits required	Additional prescribed impact credits	Total ecosystem credits required with prescribed impacts
PCT 88 Pilliga Box - White Cypress Pine - Buloke shrubby woodland in the Brigalow Belt South Bioregion (Good)	69.9	1,281	1,050	2,331
PCT 88 Pilliga Box - White Cypress Pine - Buloke shrubby woodland in the Brigalow Belt South Bioregion (DNG)	2.4	36	0	36
PCT 141 Broombush - wattle very tall shrubland of the Pilliga to Goonoo regions, Brigalow Belt South Bioregion (Good)	29.0	433	355	788
PCT 256 Green Mallee tall mallee woodland on rises in the Pilliga - Goonoo regions, southern Brigalow Belt South Bioregion (Good)	0.3	5	4	9
PCT 394 Narrow-leaved Ironbark - White Cypress Pine woodland on slopes and flats in the Coonabarabran - Pilliga Scrub regions (Good)	50.4	926	759	1,685
PCT 394 Narrow-leaved Ironbark - White Cypress Pine woodland on slopes and flats in the Coonabarabran - Pilliga Scrub regions (Good, fire affected)	11.1	102	84	186
PCT 397 Poplar Box - White Cypress Pine shrub grass tall woodland of the Pilliga-Warialda region, Brigalow Belt South Bioregion (Good)	14.9	286	235	521
PCT 398 Narrow-leaved Ironbark - White Cypress Pine - Buloke tall open forest on lower slopes and flats in the Pilliga Scrub and surrounding forests in the central north Brigalow Belt South Bioregion (Good)	371.2	8,779	7,199	15,978
PCT 398 Narrow-leaved Ironbark - White Cypress Pine - Buloke tall open forest on lower slopes and flats in the Pilliga Scrub and surrounding forests in the central north Brigalow Belt South Bioregion (Moderate, shrubs removed)	8.4	157	129	286
PCT 399 Red gum - Rough-barked Apple +/- tea tree sandy creek woodland (wetland)	46.2	977	801	1,778
PCT 404 Red Ironbark - White Bloodwood +/- Burrows Wattle heathy woodland on sandy soil in the Pilliga forests (Good)	25.1	481	394	875
PCT 406 White Bloodwood - Motherumbah - Red Ironbark shrubby sandstone hill woodland / open forest mainly in east Pilliga forests (Good)	2.4	51	42	93

CONSOLIDATED APPROVAL

Vegetation zones by segment	Impact area (ha)	Ecosystem credits required	Additional prescribed impact credits	Total ecosystem credits required with prescribed impacts
PCT 409 Dirty (Baradine) Gum - White Bloodwood - White Cypress Pine - Motherumbah shrubby woodland on sandy soils in the Pilliga Scrub and surrounding region, Brigalow Belt South Bioregion (Good)	0.8	13	11	24
PCT 414 White Mallee - Dwyer's Red Gum mallee heath on sands in the Goonoo - Pilliga region, Brigalow Belt South Bioregion (Good)	7.3	79	65	144
PCT 589 White Box - White Cypress Pine - Silver-leaved Ironbark grassy woodland on mainly clay loam soils on hills mainly in the Nandewar Bioregion (Good)	0.4	9	7	16
PCT 1384 White Cypress Pine - Bulloak - ironbark woodland of the Pilliga area of the Brigalow Belt South Bioregion (Good)	8.8	354	290	644
SEGMENT 10 – TOTAL ecosystem credits required		14,064	11,425	25,489
SEGMENT 11 – Alignment (Pilliga to Narrabri)				
PCT 35 Brigalow- Belah open forest/woodland on alluvial plains often gilgaied clay from Pilliga Scrub to Goondiwindi, Brigalow Belt South Bioregion (Good)	1.4	45	0	45
PCT 35 Brigalow- Belah open forest/woodland on alluvial plains often gilgaied clay from Pilliga Scrub to Goondiwindi, Brigalow Belt South Bioregion (DNG)	5.9	110	n	110
PCT 49 Partly derived Windmill Grass - copperburr alluvial plains shrubby grassland of the Darling Riverine Plains Bioregion and Brigalow Belt South Bioregion (Good)	34	690	0	690
PCT 55 Belah woodland on alluvial plains and low rises in the central NSW wheatbelt to Pilliga and Liverpool Plains regions (Good)	0.9	29	n	29
PCT 78 River Red Gum riparian tall woodland / open forest wetland in the Nandewar Bioregion and Brigalow Belt South Bioregion (Good)	11.9	424	0	424
PCT 78 River Red Gum riparian tall woodland / open forest wetland in the Nandewar Bioregion and Brigalow Belt South Bioregion (DNG)	1.3	24	n	24
PCT 88 Pilliga Box - White Cypress Pine - Buloke shrubby woodland in the Brigalow Belt South Bioregion (Good)	9.2	181	0	181

CONSOLIDATED APPROVAL

Vegetation zones by segment	Impact area (ha)	Ecosystem credits required	Additional prescribed impact credits	Total ecosystem credits required with prescribed impacts
PCT 148 Dirty Gum - Buloke - White Cypress Pine - ironbark shrubby woodland on deep sandy soils in the Liverpool Plains region of the Brigalow Belt South Bioregion (Good)	39.8	1,021	0	1,021
PCT 148 Dirty Gum - Buloke - White Cypress Pine - ironbark shrubby woodland on deep sandy soils in the Liverpool Plains region of the Brigalow Belt South Bioregion (DNG)	8.8	138	0	138
PCT 168 Derived Copperburr shrubland of the NSW northern inland alluvial floodplains (Good)	7.3	244	0	244
PCT 399 Red gum - Rough-barked Apple +/- tea tree sandy creek woodland (wetland) in the Pilliga - Goonoo sandstone forests, Brigalow Belt South Bioregion (Good)	8.7	185	0	185
PCT 473 Red gum - Rough-barked Apple - Narrow-leaved Ironbark - cypress pine grassy open forest on flats and drainage lines in the Goonoo and surrounding forests, southern Brigalow Belt South Bioregion (Good)	19.2	400	0	400
SEGMENT 11 – TOTAL ecosystem credits required		4,007	0	4,007
GRAND TOTAL – TOTAL ecosystem credits required (all segments)		39,427	11,425	50,852

CONSOLIDATED APPROVAL

Table 2 Species Credits by Project Segment

Species	Habitat impact (ha)	Risk rating	Species credits required	Total with prescribed impacts
Segment 3 – Narrabri multi-function compound				
Bush Stone-curlew (<i>Burhinus grallarius</i>)	0.23	2	10	10
<i>Cyperus conicus</i>	5.49	2	162	162
Eastern Pygmy-possum (<i>Cercartetus nanus</i>)	1.12	2	33	33
Glossy Black-cockatoo (<i>Calyptorhynchus lathami</i>)	6.47	2	191	191
Native Milkwort (<i>Polygala linariifolia</i>)	92.75	2	1,732	1,732
Pine Donkey Orchid (<i>Diuris tricolor</i>)	92.75	1.5	1,299	1,299
Scant Pomaderris (Pomaderris queenslandica)	5.49	2	162	162
Spiny Peppercress (<i>Lepidium aschersonii</i>)	92.75	2	1,733	1,733
Squirrel Glider (<i>Petaurus norfolcensis</i>)	6.31	2	186	186
Winged Peppercress (<i>Lepidium monoplacoides</i>)	92.75	2	1,733	1,733
Segment 3 – total species credits		-	7,241	7,241
Segment 5 – Borrow pit B				
Little Eagle (<i>Hieraaetus morphnoides</i>)	3.26	1.5	66	66
Square-tailed Kite (<i>Lophoictinia isura</i>)	3.26	1.5	66	66
Segment 5 – total species credits			132	132
Segment 6 – Borrow pit C				
Bush Stone-curlew (<i>Burhinus grallarius</i>)	0.09	2	2	2
Eastern Pygmy-possum (<i>Cercartetus nanus</i>)	8.08	2	150	150
Squirrel Glider (<i>Petaurus norfolcensis</i>)	8.11	2	150	150
Segment 6 – total species credits			302	302

CONSOLIDATED APPROVAL

Species	Habitat impact (ha)	Risk rating	Species credits required	Total with prescribed impacts
Segment 7– Borrow pit D				
Bush Stone-curlew (<i>Burhinus grallarius</i>)	0.58	2	17	17
Eastern Pygmy-possum (<i>Cercartetus nanus</i>)	4.18	2	112	112
Square-tailed Kite (<i>Lophoictinia isura</i>)	2.12	1.5	36	36
Squirrel Glider (<i>Petaurus norfolcensis</i>)	4.33	2	116	116
Segment 7 – total species credits			281	281
Segment 8 – Narromine to Curban				
Barking Owl (<i>Ninox connivens</i>)	22.38	2	599	599
Bluegrass (<i>Dichanthium setosum</i>)	3.50	2	174	174
Bush Stone-curlew (<i>Burhinus grallarius</i>)	101.5	2	2,248	2,248
Cobar Greenhood (<i>Pterostylis cobarensis</i>)	55.43	2	1,261	1,261
Eastern Pygmy-possum (<i>Cercartetus nanus</i>)	112.81	2	2,478	2,478
Glossy Black-cockatoo (<i>Calyptorhynchus lathami</i>)	42.59	2	1,020	1,020
Koala (<i>Phascolarctos cinereus</i>)	12.0	2	440	440
Little Eagle (<i>Hieraaetus morphnoides</i>)	81.60	1.5	1,467	1,467
Masked Owl (<i>Tyto novaehollandiae</i>)	22.38	2	598	598
Native Milkwort (<i>Polygala linariifolia</i>)	46.73	2	991	991
Pale-headed Snake (<i>Hoplocephalus bitorquatus</i>)	55.93	2	1,450	1,450
Pine Donkey Orchid (<i>Diuris tricolor</i>)	59.55	1.5	982	982
Silky Swainsona-pea (<i>Swainsona sericea</i>)	27.17	2	761	761
Slender Darling-pea (<i>Swainsona murrayana</i>)	34.99	2	1,374	1,374

CONSOLIDATED APPROVAL

Species	Habitat impact (ha)	Risk rating	Species credits required	Total with prescribed impacts
Spiny Peppercress (<i>Lepidium aschersonii</i>)	57.43	2	1,170	1,170
Square-tailed Kite (<i>Lophoictinia isura</i>)	72.77	1.5	1,332	1,332
Squirrel Glider (<i>Petaurus norfolcensis</i>)	112.11	2	2,511	2,511
<i>Tylophora linearis</i>	3.50	2	174	174
Winged Peppercress (<i>Lepidium monoplacoides</i>)	26.09	2	663	663
Segment 8 – total species credits			21,693	21,693
Segment 9 – Curban to Pilliga				
Barking Owl (<i>Ninox connivens</i>)	13.13	2	367	367
Bush Stone-curlew (<i>Burhinus grallarius</i>)	93.37	2	2,401	2,401
Cobar Greenhood (<i>Pterostylis cobarensis</i>)	11.82	2	310	310
<i>Commersonia procumbens</i>	0.33	2	9	9
Eastern Pygmy-possum (<i>Cercartetus nanus</i>)	63.80	2	1,459	1,459
Glossy Black-cockatoo (<i>Calyptorhynchus lathami</i>)	19.81	2	455	455
Koala (<i>Phascolarctos cinereus</i>)	30.39	2	110	110
Little Eagle (<i>Hieraaetus morphnoides</i>)	67.32	1.5	1,240	1,240
Masked Owl (<i>Tyto novaehollandiae</i>)	13.67	2	396	396
Native Milkwort (<i>Polygala linariifolia</i>)	0.69	2	18	18
Pale-headed Snake (<i>Hoplocephalus bitorquatus</i>)	28.76	2	830	830
Rufous Bettong (<i>Aepyprymnus rufescens</i>)	2.56	2	67	67
Pine Donkey Orchid (<i>Diuris tricolor</i>)	11.14	2	219	219
Slender Darling-pea (<i>Swainsona murrayana</i>)	15.00	2	647	647

CONSOLIDATED APPROVAL

Spiny Peppercress (<i>Lepidium aschersonii</i>)	0.69	2	18	18
Square-tailed Kite (<i>Lophoictinia isura</i>)	63.55	1.5	1,170	1,170
Squirrel Glider (<i>Petaurus norfolcensis</i>)	65.35	2	1,496	1,496
Winged Peppercress (<i>Lepidium monoplacoides</i>)	10.79	2	299	299
Segment 9 – total species credits			11,511	11,511
Segment 10 – Pilliga				
Barking Owl (<i>Ninox connivens</i>)	218.82	2	6,314	10,102
Bush Stone-curlew (<i>Burhinus grallarius</i>)	337.28	2	9,986	18,973
Cobar Greenhood (<i>Pterostylis cobarensis</i>)	343.46	2	9,005	9,005
<i>Commersonia procumbens</i>	572.56	2	16,725	16,725
<i>Cyperus conicus</i>	5.06	2	119	119
Eastern Pygmy-possum (<i>Cercartetus nanus</i>)	596.18	2	17,111	42,778
Glossy Black-cockatoo (<i>Calyptorhynchus lathami</i>)	223.95	2	6,571	6,768
Koala (<i>Phascolarctos cinereus</i>)	222.41	2	5,704	10,838
Little Eagle (<i>Hieraaetus morphnoides</i>)	277.04	1.5	6,118	6,302
Masked Owl (<i>Tyto novaehollandiae</i>)	146.04	2	4,385	7,016
Native Milkwort (<i>Polygala linariifolia</i>)	82.33	2	2,390	2,390
Pale-headed Snake (<i>Hoplocephalus bitorquatus</i>)	168.97	2	4,895	7,832
Pine Donkey Orchid (<i>Diuris tricolor</i>)	178.64	1.5	3,913	3,913
Rufous Bettong (<i>Aepyprymnus rufescens</i>)	355.25	2	10,530	26,325
Silky Swainsona-pea (<i>Swainsona sericea</i>)	51.77	2	1,711	1,711
Spiny Peppercress (<i>Lepidium aschersonii</i>)	144.92	2	4,359	4,359
Square-tailed Kite (<i>Lophoictinia isura</i>)	235.57	1.5	5,241	5,398

CONSOLIDATED APPROVAL

Squirrel Glider (<i>Petaurus norfolcensis</i>)	419.32	2	12,079	30,198
<i>Tylophora linearis</i>	32.1	2	1,062	1,062
Winged Peppercress (<i>Lepidium monoplocoides</i>)	8.76	2	216	216
<i>Zieria ingramii</i>	48.62	2	1,605	1,605
Segment 10 – total species credits		-	130,039	213,635
Segment 11 – Pilliga to Narrabri				
Barking Owl (<i>Ninox connivens</i>)	4.02	2	168	168
Bush Stone-curlew (<i>Burhinus grallarius</i>)	16.35	2	501	501
Cobar Greenhood (<i>Pterostylis cobarensis</i>)	31.85	2	680	680
<i>Commersonia procumbens</i>	0.14	2	4	4
<i>Cyperus conicus</i>	40.20	2	883	883
Pine Donkey Orchid (<i>Diuris tricolor</i>)	46.08	1.5	763	763
Eastern Pygmy-possum (<i>Cercartetus nanus</i>)	49.56	2	1,458	1,458
Glossy Black-cockatoo (<i>Calyptorhynchus lathami</i>)	31.84	2	1,059	1,059
Koala (<i>Phascolarctos cinereus</i>)	93.44	2	1,373	1,373
Little Eagle (<i>Hieraaetus morphnoides</i>)	36.20	1.5	874	874
Masked Owl (<i>Tyto novaehollandiae</i>)	3.87	2	164	164
Native Milkwort (<i>Polygala linariifolia</i>)	40.74	2	892	892
Pale-headed Snake (<i>Hoplocephalus bitorquatus</i>)	33.17	2	1,102	1,102
Rufous Bettong (<i>Aepyprymnus rufescens</i>)	0.072		3	3
Scant Pomaderris (<i>Pomaderris queenslandica</i>)	3.562		105	105
Spiny Peppercress (<i>Lepidium aschersonii</i>)	42.94	2	952	952
Square-tailed Kite (<i>Lophoictinia isura</i>)	29.84	1.5	741	741

CONSOLIDATED APPROVAL

Squirrel Glider (<i>Petaurus norfolcensis</i>)	35.73	2	1,084	1,084
Winged Peppercress (<i>Lepidium monoplocoides</i>)	37.74	2	799	799
Segment 11 – total species credits			13,605	13,605
GRAND TOTAL SPECIES CREDITS – all segments			184,804	268,400

APPENDIX C FLOODING QUANTITATIVE DESIGN LIMITS AND MODELLING REQUIREMENTS

SCHEDULE 1 QUANTITATIVE DESIGN LIMITS

TABLE 1: QUANTITATIVE DESIGN LIMITS (QDLs)

(These QDLs are only applicable beyond the CSSI corridor, unless otherwise noted, and do not apply to model noise²)

Parameter	Location or Land Use	Limit
Afflux i.e. increase in flood level resulting from implementation of CSSI.	Habitable floors and sensitive infrastructure ³	10mm increase ⁴
	Non-habitable floors ³	20mm increase
	Surrounds of residential buildings, other urban, open space recreational land and infrastructure (excluding sensitive infrastructure)	100mm increase
	Agricultural	200mm increase
	Forest and unimproved grazing land	300mm increase
	Classified roads managed by TfNSW ⁶	50mm on areas flooded under existing conditions. Otherwise, no increase. ⁵
	Highways and sealed roads >80km/hr ⁶	No afflux where aquaplaning risk exists and remains unmitigated. Otherwise 50mm increase ⁵
	Unsealed roads and sealed roads <80km/hr ⁶	100mm increase ⁵
Velocity ie. Increase in flood velocity resulting from the		

² Model noise is an artefact of the modelling process and does not provide any useful information and is not the same as model tolerance. Modelling noise is to be ignored when assessing compliance with the QDLs. All modelling noise exclusions are to be reviewed by the independent reviewer required under **Condition E43**.

³ Habitable floors/rooms are defined consistent with the use of this term in the NSW Floodplain Development Manual. In a residential situation this comprises a living or working area such as a lounge room, dining room, rumpus room, kitchen, bedroom or workroom. In an industrial, commercial or other building, this comprises an area used for an office or to store valuable possessions, goods or equipment susceptible to flood damage in the event of a flood.

⁴ 10 mm has been set to provide a margin for modelling uncertainties/tolerances. The intent of this requirement is that existing flood levels above floor level do not increase and there is no new flooding of floors.

⁵ Any variation must be negotiated with the roads authority in accordance with **Condition E50**

⁶ Including where located within CSSI corridor.

CONSOLIDATED APPROVAL

Parameter	Location or Land Use	Limit
implementation of the CSSI (Both Flow Distribution and the Scour/Erosion velocity QDLs apply)		
<u>Flow Distribution</u>	All areas	20% increase in velocity ⁷
<u>Scour/Erosion Potential</u>	Ground surfaces that have been sealed or otherwise protected against erosion. This includes roads and most urban, commercial, industrial, recreational and forested land	Velocities are not to exceed the limiting velocities which would erode the sealing or remove the protection that has been applied to the surface.
	Other areas including watercourses, agricultural land, unimproved grazing land and other unsealed or unprotected areas	An erosion threshold velocity (ETV) is to be determined through a site specific assessment(s) conducted by an experienced geotechnical or scour/erosion specialist in accordance with Conditions E52 to E55.⁸ An ETV of 0.5m/s is to be adopted in the absence of a site specific assessment(s). Where existing velocity exceeds ETV, velocity is limited to a 0.025m/s increase⁹. Where existing velocity is less than ETV, velocity is limited to the lesser of: • ETV • 20% increase or 0.5m/s whichever is greater
<u>Flood Hazard</u> i.e. increase in velocity~depth product (vd) resulting from implementation of CSSI. (Does not apply where $vd < 0.1 \text{ m}^2/\text{s}$).	Urban, commercial, industrial, highways ⁶ and sealed roadways ⁶	10% increase in vd
	Classified roads managed by TfNSW ⁶	10% increase in vd where this does not result in an increase in hazard category. Otherwise, no increase. ⁵
	Elsewhere	20% increase in vd
<u>Flood Duration</u> i.e. increase in duration of inundation resulting	Habitable floors ³	Where existing above floor flooding is: • less than 1 hour in flood duration, the post-development flood duration shall not exceed 1 hour • greater than 1 hour in duration, up to 5% increased inundation duration

⁷ Local variations in velocity can exceed a 20% change provided that when assessed over a 30m wide flowpath, the velocity change within the flowpath does not exceed 20%.

⁸ An equivalent shear stress may be substituted for an ETV determined through this process.

⁹ Where velocity exceeds this QDL, the **Operational Erosion Mitigation and Monitoring Program** required by **Condition E71** must be prepared and implemented.

CONSOLIDATED APPROVAL

Parameter	Location or Land Use	Limit
from implementation of CSSI.		Where existing below floor flooding is: - less than 1 hour in flood duration, the post-development flood duration shall not exceed 1 hour - greater than 1 hour in duration, up to 10% increased inundation duration
	Classified roads managed by TfNSW ⁶	No increase in duration of flood inundation to sections of road not already inundated ⁵ . Otherwise 10% increase in inundation duration.
	Highways and sealed roads >80km/hr ⁶	10% increase in inundation duration.
	Elsewhere	Where existing inundation is less than 1 hour in flood duration, the post-development flood duration shall not exceed 1 hour. Where existing inundation is greater than 1 hour in flood duration, up to 10% increase in duration of inundation No duration limits apply to newly flooded land no greater than 1000m ² in area

SCHEDULE 2 FLOOD MODELLING SPECIFICATIONS

The minimum requirements for the flood modelling are:

- 1) 2D flood modelling consistent with current best practice and:
 - (i) the 2019 version (or later version) of *Australian Rainfall and Runoff: A guide to flood estimation (ARR)*;
 - (ii) *Floodplain Risk Management Guide – Incorporating 2016 Australian Rainfall and Runoff in studies* (OEH 2018) or any subsequent update to this document, or additional guidance provided by EES on the application of ARR within NSW.
- 2) Flood modelling in all subcatchments are to include simulation of:
 - (i) the 1% AEP flood event;
 - (ii) at least two other events more frequent than 1% AEP;
 - (iii) at least one other event less frequent than 1% AEP;
 - (iv) additional events required at any specific location in order to allow a full understanding of the variation in flood behaviour between flood events of 1% AEP and 0.5EY;
 - (v) additional events required at any specific location in order to allow full consideration of flood behaviour in events rarer than 1% AEP and up to the probable maximum flood (**PMF**) having regard to the potential risks to life and the requirements of the *NSW Floodplain Development Manual*.
- 3) Inclusion of at least five durations including the critical duration for each flood event. These durations are to be selected to be representative of the range of durations that could occur and include all durations that will be relevant to the design of the CSSI and the assessment of flood impacts for all simulated flood events.
- 4) Spatial coverage of the model to include all parts of the CSSI corridor where inundation could occur and extending a sufficient distance upstream and downstream of the corridor in order to simulate:
 - (i) alternative flow distributions arriving at the rail corridor as a result of differing spatial distributions of rainfall over the upstream catchment; and
 - (ii) changes in flood behaviour upstream and downstream of the corridor where there is potential for any of the flood impacts identified in **Conditions E46 to E49** to occur.
- 5) Spatial resolution of the hydraulic model at a maximum of 2.5 metres to model velocity at the entry and exit of culverts and bridges up to a distance of 100 metres upstream and 300m downstream from these structures.
- 6) Simulation of not only watercourses but all overland flowpaths, including new overland flowpaths resulting from the construction of the CSSI.
- 7) Consideration of low tailwater levels on the downstream side of the rail corridor which may be produced by different spatial and temporal distributions of rainfall. Whilst these conditions may produce lower flood levels on the upstream side of the corridor, in some circumstances these conditions may result in larger flood impacts for some hydraulic metrics (e.g. velocity changes). Significant investigation and modelling is to be undertaken to ensure that the maximum flood impacts that could potentially occur have been simulated.
- 8) The model structure and its calibration and validation, are to be fit-for-purpose and are to provide sufficient accuracy and spatial resolution for both the design of the CSSI and the accurate identification of all the flood impacts identified in **Conditions E46 to E49**. This is to include prediction of flood height changes to a resolution no coarser than 10mm.
- 9) The design of all cross-drainage structures (including bridges, culverts and pipes) are to include for blockage calculated in accordance with the procedures in ARR. The sensitivity of the flood immunity of CSSI and its flood impacts to changes in ARR blockage used in the design is to be considered. This is to include at least zero blockage and double blockage scenarios.
- 10) The sensitivity of the flood immunity of CSSI and its flood impacts to climate change is to be considered having regard to guidance provided within the documents in 1)(i) and 1)(ii) above, and the most recent advice from the NSW Government including its Floodplain Risk Management Guideline entitled Practical Consideration of Climate Change.
- 11) Where bridges are proposed for cross-drainage, appropriate freeboard is to be included having

CONSOLIDATED APPROVAL

regard to the structural and hydraulic design of the bridge. The minimum freeboard to be used is 0.3m.

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