


# 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 20 / 2 /2023

### SCHEDULE 1

<b>Application no.:</b>	SSI-9371
<b>Proponent:</b>	Australian Rail Track Corporation
<b>Approval Authority:</b>	Minister for Planning
<b>Land:</b>	Land between North Star and the New South Wales/Queensland border
<b>Description of Critical State Significant Infrastructure:</b>	<p>Development for the purposes of the Inland Rail – North Star to NSW/QLD Border proposal being the construction and operation of 30 kilometres of rail track to accommodate double-stacked freight trains up to 1,800 metres long and associated facilities between North Star and the NSW/QLD border including:</p> <ul style="list-style-type: none"><li>• a new rail track following the existing non-operational Boggabilla rail corridor for 25 kilometres;</li><li>• five kilometres of new rail track in a greenfield rail corridor to the NSW/QLD border;</li><li>• a crossing loop, new bridges and level crossing work;</li><li>• establishment and use of off-site borrow sites for construction materials;</li><li>• an accommodation camp at North Star; and</li><li>• ancillary infrastructure and associated earthworks, drainage and road works.</li></ul>
<b>Declaration as Critical State Significant Infrastructure:</b>	<p>The proposal is critical State Significant Infrastructure by virtue of Schedule 5, clause 7(3A) of <i>State Environmental Planning Policy (Planning Systems) 2011</i>.</p>

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## 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
1976 flood event	This is the event defined as the large design event in the Border Rivers Valley Floodplain Management Plan, 2020
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. In the PIR, this is considered for all areas not covered by the 1976 event,
2019 LiDAR levees	2019 levees data obtained from LiDAR survey as described in the EIS and PIR
Acquisition of land / acquire land	The same meaning as defined in the <i>Land Acquisition (Just Terms) Compensation Act 1991</i>
Aboriginal object or Aboriginal place	The same meaning as defined in the <i>National Parks and Wildlife Act 1974 (NSW)</i> .
Accommodation camp	The camp being established as part of the Project 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, EHG, the relevant council(s), state and local government agencies, etc
Ancillary facility	A temporary facility for construction of the CSSI including office and amenities compound, construction compound, material crushing and screening plant, materials storage compound, maintenance workshop, testing laboratory, car parking compound, a site used for assembly of infrastructure and 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 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
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 Directorate

<b>Term</b>	<b>Definition</b>
BCF Charge Amount	Means the amount which a person would be required to pay into the biodiversity Conservation Fund at a specified date to deliver the Outstanding Biodiversity Offsets on that date, as determined pursuant to the calculator established under Part 6 Division 6 of the BC Act for obligations to deliver biodiversity credits and otherwise as determined in accordance with the Biodiversity Offset Package for obligations to deliver other kinds of offsets.
Biodiversity Offsets Security Deed	The Deed of Agreement between the Planning Secretary executed on 13 February 2023
BRVFMP	Border Rivers Floodplain Management Plan 2020
BRVFMP levees	BRVFMP levees data obtained from the BRVFMP
CALD	Culturally and Linguistically Diverse
CEMP	Construction Environmental Management Plan as defined in <b>Conditions C1 and C2</b> .
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 all work required to construct the CSSI as defined in the Project Description provided in the documents listed in <b>Condition A1</b> , including commissioning trials of equipment and temporary use of any part of the CSSI, but excluding <b>low impact work</b> which is commenced prior to approval of the CEMP.
Construction Boundary	The area physically affected by work as described in the documents listed in <b>Condition A1</b>
Consultation	Actively engaging with, and considering the views of, the affected community and relevant authorities and agencies to manage potential project impacts. Consultation is not limited to one-way notification about the project. This definition must inform the Communication Strategy required under <b>Condition B1</b> .
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.
DAWE	Commonwealth Department of Agriculture, Water and Environment
DCCEEW	Commonwealth Department of Climate Change, Energy, the Environment and Water.
Department	NSW Department of Planning and Environment
DEC	Former NSW Department of Environment and Conservation
DECC	Former NSW Department of Environment and Climate Change
EHG	Environment and Heritage Group of the Department of Planning and Environment former Environment, Energy and Science Group
EIS	The Environmental Impact Statement 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 project

Term	Definition
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.
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>
ER	The Environmental Representative for the CSSI.
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 Premier and Cabinet
Highly noise affected	As defined in the Interim Construction Noise Guideline (DECC, 2009)
Highly noise intensive work	Work which is defined as annoying in the ICNG including: a) use of power saws, such as used for cutting timber, rail lines, masonry, road pavement or steel work; b) grinding metal, concrete or masonry; c) rock drilling; d) line drilling; e) vibratory rolling; f) bitumen milling or profiling; g) jackhammering, rock hammering or rock breaking; h) impact piling; and i) tamping.
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. <i>Note: "material harm" is defined in this approval</i>
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.
Local road	Any road that is not defined as a classified road under the <i>Roads Act 1993</i> .
LOTE	Language Other Than English

Term	Definition
Low Impact work	<p>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;</p> <p>b) investigations including investigative drilling, contamination investigations and excavation;</p> <p>c) site establishment work approved under a <b>Site Establishment Management Plan</b> in accordance with <b>Condition A20</b>;</p> <p>d) operation of ancillary facilities if the <b>ER</b> has determined the operational activities will have minimal impact on the environment and community;</p> <p>e) treatment of contaminated sites subject to the recommendations of a Remediation Report prepared in accordance with <b>Condition E147</b>;</p> <p>f) minor clearing and relocation of native vegetation, as identified in the documents listed in <b>Condition A1</b>;</p> <p>g) installation of mitigation measures including erosion and sediment controls, temporary exclusion fencing for sensitive areas and acoustic treatments;</p> <p>h) property acquisition adjustment work including installation of property fencing;</p> <p>i) relocation and connection of utilities where the relocation or connection has been determined by the <b>ER</b> to have a minor impact to the environment;</p> <p>j) establishing minor ancillary facilities in accordance with <b>Condition A24</b>;</p> <p>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;</p> <p>l) archaeological and cultural salvage undertaken in accordance with a strategy or salvage operation required by the conditions of this approval;</p> <p>m) maintenance work to existing buildings and structures as required to facilitate the carrying out of the CSSI; and</p> <p>n) other activities determined by the <b>ER</b> to have minimal environmental impact which may include construction of minor access roads, temporary relocation of pedestrian paths and the provision of property access.</p> <p>Despite the above, the following works are not Low Impact Work:</p> <p>a) 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, BCS or DPI Fisheries (in the case of impact upon fish, aquatic invertebrates or marine vegetation); and</p> <p>b) any night time work that exceeds noise management levels as defined in the ICNG.</p> <p>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</p>

Term	Definition
	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.  <i>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.</i>
ONCR	Operational Noise Compliance Report
ONVR	Operational Noise and Vibration Review
Outstanding Biodiversity Offsets	means those biodiversity offsets for the CSSI which are required to be delivered under the Biodiversity Offset Package and which have not been delivered.
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.
PIR	Preferred Infrastructure Report
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 <b>Condition B10</b> 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 b) zoned under an environmental planning instrument predominantly or solely for development for the purpose of a railway or rail infrastructure facilities.
RAPs	Registered Aboriginal Parties
Relevant council(s)	Gwydir Shire Council, Moree Plains Shire Council and Goondiwindi Regional Council (as relevant)



Term	Definition
Relevant Road Authority	The same meaning as the road authorities defined in the <i>Roads Act 1993</i> (NSW).
Relic	The same meaning as the definition of the term in section 4 of the <i>Heritage Act 1977</i> (NSW).
RIAR	Regions, Industry, Agriculture and Resources Group of the Department of Planning and Environment (former Department of Industry - Lands and Water)
Response to Submissions	The Proponent's response to issues raised in submissions received in relation to the application for approval for the CSSI under the EP&A Act
Sensitive land uses	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), and others as identified by the Planning Secretary.
SES	NSW State Emergency Services
SMART	Specific, Measureable, Achievable, Realistic and Timely
TALC	Toomelah Local Aboriginal Land Council
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 <b>Condition A1</b> 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 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 A8** 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 A43**).

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

Condition	Report / Notification	Timing <sup>1</sup>	Purpose
<b>Part A - Administrative</b>			
A9	Staging Report	One month prior to commencement of construction (or operation if only staged operation is proposed) of the first of the proposed stages	Information
A13	Revised Staging Report	One month prior to the proposed change in the staging	Information
A15	Construction Environmental Management Framework	One month before the lodgement of any <b>CEMP</b> , <b>CEMP sub plan</b> or <b>CMP</b>	Approval
A19	Accommodation Camp Management Plan	One month before occupation of the accommodation camp by construction personnel	Approval
A20	Site Establishment Management Plan	One month before the establishment of any ancillary facilities or accommodation camp	Approval
A29	Environmental Representative	One month prior to the commencement of works	Approval
A32(d)	Documents requiring ER endorsement only	As soon as practicable after endorsement by the <b>ER</b>	Information
A32(j)	Environmental Representative Monthly Reports	Within seven days following the end of each month for the duration of the <b>ER's</b> engagement for the CSSI	Information
A36	Compliance Reports	Within the timeframes set out in the <i>Compliance Reporting Post Approval Requirements (2020)</i>	Information
A37	Independent Auditors	Must be approved before the commencement of an Independent Audit	Approval
A40	Response to an independent audit	In accordance with the requirements <i>Independent Audit Post Approval Requirements (2020)</i>	Information
A41	Independent Audit Reports and Proponent's response	Within two (2) months of undertaking the independent audit site inspection	Information
A43	Notification of incidents	Immediately upon becoming aware of the incident	Information
A45	Written notification of non-compliance	Non-compliance notification required in writing seven (7) days after the Proponent becomes aware of the non-compliance	Information
<b>Part B - Communication Information and Reporting</b>			
B3	Communication Strategy	One month before the commencement of any work	Approval
B9	Complaints Register	Upon request of the Planning Secretary	Information
<b>Part C - Construction Environmental Management</b>			

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

Condition	Report / Notification	Timing <sup>1</sup>	Purpose
C4	CEMPs (except for any CEMPs expressly nominated by the Planning Secretary to be endorsed by the ER only)	One 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 month before the commencement of construction or where construction is staged no later than one (1) month before the commencement of that stage	Approval
C18	Construction Monitoring Programs (except for any programs expressly nominated by the Planning Secretary to be endorsed by the ER only)	One month before the commencement of construction or where construction is staged no later than one (1) month before the commencement of that stage	Approval
C22	Construction Monitoring Report	As specified in Construction Monitoring Programs	Information
<b>Part D - Operation Environmental Management</b>			
D3	OEMP or EMS	One month before the commencement of operation	Information
<b>Part E – Key Issues</b>			
<b>Noise and Vibration</b>			
E2	Evidence of consultation and outcomes	On request	information
E3(a)	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 month before the commencement of blasting	Information
E15	Operational Noise and Vibration Review	Before the implementation of any operational noise mitigation measures	Approval
E19	Operational Noise Compliance Report	Within 90 days of completing the operational noise monitoring	Information
<b>Biodiversity</b>			
E30	Five-clawed Worm Skink Management Plan	Before the commencement of work in Five-clawed Worm Skink habitat	Approval
<b>Flooding</b>			
E44	Independent hydrologist	Prior to commencing a peer review of the hydraulic and hydrological flood modelling.	Approval
E61	Independent hydrological, engineering and	Prior to commencement of any works that have the potential to result in non-compliance with <b>Condition E53</b>	Approval

Condition	Report / Notification	Timing <sup>1</sup>	Purpose
	agricultural experts and terms of reference		
E62	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
E66	Copy of any recommendation by the IFIAP and evidence of the Proponent's implementation	Following implementation of the recommendation	Information
E68	Program for review of an interim Flood Design Verification Report	One month before the date an Interim Flood Design Verification Report would be submitted	Information
E71	Flood Design Verification Report	At least two months prior to the commencement of construction of permanent works that may impact on flooding	Approval
E74	Copy of monitoring results and commentary	Within one month of completing the monitoring.	Information
E77	Flood Review Report	Within three months of finalising the report	Information
E78	Monitoring Methodology	Within six months before the commencement of operation of the CSSI	Information
<b>Traffic, Transport and Access</b>			
E91	Public Level Crossing Treatment Report and Private Level Crossing Treatment Report	One month before the closure or upgrade of a public level crossing	Information
E94	Level Crossing Performance Report	Within 60 days of its completion	Information
E106	Road Safety Audit	On request	Information
<b>Social Impacts</b>			
E110	Social Impact Management Plan	Two months prior to the commencement of construction	Approval
<b>Visual Amenity and Landscape Impacts</b>			
E124	Visual and Landscape Impact Mitigation Plan	Six (6) months after the commencement of construction	Approval
E125	Evidence of consultation and details of interpretation initiatives developed in consultation with Toomelah LALC	One (1) month prior to commencing construction of the Macintyre River bridge and Tucka Tucka Road rail bridge	Information
<b>Heritage</b>			
E134	Aboriginal Archaeological Test Excavation Methodology	One month before the test excavation commences	Approval

Condition	Report / Notification	Timing <sup>1</sup>	Purpose
E135	Aboriginal Cultural Heritage Excavation Report(s)	Within 24 months of the completion of Aboriginal archaeological excavations (both test and salvage)	Information
E137	Unexpected Heritage Finds and Human Remains Procedure	Before the commencement of Work	Information
<b>Soils</b>			
E150	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 – North Star to NSW/Queensland Border Environmental Impact Statement, Volumes 1-7 (ARTC / Future Freight Joint Venture, August 2020);
  - (b) Inland Rail – North Star to NSW/Queensland Border Response to Submissions (ARTC / Future Freight Joint Venture, received by the Department 9 June 2021);
  - (c) Inland Rail North Star to NSW/QLD Border Appendix B – Terrestrial Biodiversity Technical Report (Future Freight Joint Venture, Revision 10, 20 October 2021);
  - (d) Inland Rail – North Star to NSW/Queensland Border – Preferred Infrastructure Report (Future Freight Joint Venture, May 2021);
  - (e) Response to DPIE RFI regarding further modelling and assessment of velocities through culverts Technical Note (Future Freight Joint Venture, 5 November 2021);
  - (f) Response to DPIE RFI regarding further modelling and assessment of velocities through culverts Technical Note (Future Freight Joint Venture, 10 December 2021); and
  - (g) Biodiversity Offset Package for Inland Rail NS2B Project (ARTC, 19 December 2022 version 2).
- 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 A1(f) inclusive, the conditions of this approval will prevail to the extent of the inconsistency; and
  - (b) any document listed in **Condition A1(a) to A1(f)** inclusive, the most recent document will prevail to the extent of the inconsistency.
- Note:** For the purpose of this condition, there will be an inconsistency between a term of this approval and any document if it is not possible to comply with both the term and the document.
- 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 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 to the Planning Secretary with the document in accordance with Department's *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) 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.
- A6 References in the terms of this approval to any guideline, protocol, Australian Standard or policy are to such guidelines, protocols, Standards or policies in the form they are in as at the date of this approval.
- A7 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.
- A8 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 A43**.

## STAGING

- A9 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).
- A10 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.
- A11 The CSSI must be staged in accordance with the **Staging Report**, as submitted to the Planning Secretary.
- A12 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.

- A13 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.
- A14 Should a **Construction Environmental Management Framework (CEMF)** be submitted for approval under **Condition A15**, 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**

A15 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 A9**;
- (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 agency and council stakeholders is not mandatory,
  - (ii) Medium Risk Stage – endorsed by the **ER** and consultation with stakeholders required, and
  - (iii) High Risk Stage– endorsed by the Planning Secretary and consultation with 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 Method Statement or the like.

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.*

- A16 The approved **CEMF** must be implemented for the duration of construction.
- A17 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.



## ANCILLARY FACILITIES

A18 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.

## ACCOMMODATION CAMP

A19 The Proponent must prepare an **Accommodation Camp Management Plan** in consultation with Council, NSW Police and NSW Ambulance. The Plan must be submitted to the Planning Secretary for approval one (1) month before occupation of the accommodation camp by construction personnel. The Plan must include:

- (a) site layout including building locations, vehicle access and movement, site servicing and utilities infrastructure including the requirements of **Conditions E115 and E120**;
- (b) management and emergency provisions including staff roles and responsibilities, provision of security and paramedic staff required by **Condition E116**, communication procedures with emergency services, and community consultation and complaints processes consistent with the **Communication Strategy** required by **Condition B1** and the **Complaints Management System** required by **Condition B6**;
- (c) measures to minimise noise amenity impacts on North Star residents including limitations on use of outdoor recreation areas required by **Condition E118** and minimising through traffic in North Star; and
- (d) arrangements for servicing the camp (including in terms of food, water, wastewater, waste collection, cleaning and maintenance and measures to support local suppliers in servicing the camp) including:
  - (i) provisions for and anticipated frequency and timing of servicing (including food and water deliveries and waste collection)
  - (ii) location and facilities to store waste
  - (iii) cleaning and maintenance provisions, including frequency and range of duties and
  - (iv) measures to support local suppliers in servicing the accommodation camp.

**Note:** *The Accommodation Camp Management Plan is not part of the CEMP required by Condition C1.*

## SITE ESTABLISHMENT WORK

### Site Establishment Management Plan

A20 Before establishment of any ancillary facility or accommodation camp (excluding minor ancillary facilities established under **Condition A24**), 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 construction accommodation camp. The **Site Establishment Management Plan** must be prepared in consultation with the relevant council and TfNSW. The Plan must be submitted to the Planning Secretary for approval one (1) month before the establishment of any ancillary facilities or accommodation camp. The **Site Establishment Management Plan** must detail the management of the ancillary facilities and include:

- (a) a description of activities to be undertaken during establishment of the ancillary facility (including indicative scheduling and duration of work to be undertaken at the site);
- (b) figures illustrating the proposed operational site layout/s;
- (c) details of planned communication with the community consistent with the requirements of **Condition B2**;
- (d) a program for ongoing analysis of the key environmental risks arising from the site establishment activities described in subsection (a) of this condition, including an initial risk assessment undertaken prior to the commencement of site establishment work;
- (e) details of how the site establishment activities described in subsection (b) of this condition will be carried out to:
  - (i) meet the performance outcomes stated in the documents listed in **Condition A1**, and
  - (ii) manage the risks identified in the risk analysis undertaken in subsection (d) of this condition; and
- (f) a program for monitoring the performance outcomes, including a program for construction noise monitoring consistent with the requirements of **Conditions C6** and **C15**.

Nothing in this condition prevents the Proponent from preparing individual **Site Establishment Management Plans** for each ancillary facility or one **Site Establishment Management Plan** for all 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.

#### **Operation of Ancillary Facilities**

A21 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 C15** have been approved by the Planning Secretary.

This condition does not apply to minor Ancillary Facilities listed in **Condition A24** or the accommodation camp approved in accordance with **Condition A19**.

***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**

A22 Where possible, ancillary facilities must be accessed via existing public roads and/or the existing rail corridor. Where access via existing roads or the rail corridor is not possible, the Proponent may utilise existing private access tracks on private property but only with the written permission of the landowner. The Proponent must consult with each landowner whose property is required for access and agree on the terms and conditions relating to access arrangements. Nothing in this condition prevents the landowner from refusing the Proponent access to and via their land. New construction access tracks on private property must comply with the requirements of **Condition A18**.

A23 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 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.

#### **Minor Ancillary Facilities**

A24 Lunch sheds, office sheds, portable toilet facilities, material lay down sites, stockpile areas, areas used to assemble infrastructure and the like can be established 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**

A25 Boundary screening must be erected between ancillary facilities (excluding minor ancillary facilities) and 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 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).

### **INDEPENDENT APPOINTMENTS**

A26 All **Independent Appointments** required by this approval must be in accordance with the Department's guideline *Seeking approval from the Department for the appointment of independent experts* (DPIE, 2020).

A27 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 dismiss an **Independent Appointment** should they consider the **Independent Appointment** has not exercised their functions in accordance with this approval.

### **ENVIRONMENT REPRESENTATIVE**

A28 Work must not commence until an ER has been approved by the Planning Secretary and engaged by the Proponent.

A29 The Planning Secretary's approval of an **ER** must be before the commencement of Work.

A30 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, Department of Planning and Environment, October 2018*. The appointment of the **ER** must have regard to the Department's guideline *Seeking approval from the Department for the appointment of independent experts* (DPIE, 2020).

A31 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.

A32 For the duration of the works until 12 months after the completion of construction, the approved ER must:

- (a) receive and respond to communication from the Planning Secretary in relation to the environmental performance of the CSSI;
- (b) consider and inform the Planning Secretary on matters specified in the terms of this approval;
- (c) consider and recommend to the Proponent any improvements that may be made to work practices to avoid or minimise adverse impact to the environment and to the community;
- (d) review documents identified in **Conditions A9, A20, B10, C1, C6, C15 and E110**, 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 A9, A20, A36, B1, C1, C6, C15 and E110** 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 A37** of this approval;
- (g) as may be requested by the Planning Secretary, assist the Department in the resolution of community complaints;
- (h) assess the impacts of minor ancillary facilities as required by **Condition A24** 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.

A33 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 A32** (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).

## NOTIFICATION OF COMMENCEMENT

A34 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.

- A35 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

## COMPLIANCE REPORTING

- A36 Compliance Reports must be submitted to the Department in accordance with the timeframes set out in the *Compliance Reporting Post Approval Requirements (2020)*, unless otherwise agreed by the Planning Secretary.

## AUDITING

- A37 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 E107**.
- A38 Independent Audits of the CSSI must be conducted and carried out in accordance with the *Independent Audit Post Approval Requirements (2020)*.
- A39 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 (2020)*, upon giving at least 4 weeks' notice (or timing) to the Proponent of the date upon which the audit must be commenced.
- A40 In accordance with the specific requirements in the *Independent Audit Post Approval Requirements (2020)*, the Proponent must:
- (a) review and respond to each Independent Audit Report prepared under **Condition A39**;
  - (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.
- A41 Independent Audit Reports and the Proponent's response to audit findings must be submitted to the Planning Secretary within 2 months of undertaking the independent audit site inspection as outlined in the *Independent Audit Post Approvals Requirements (2020)* unless otherwise agreed by the Planning Secretary.
- A42 Notwithstanding the requirements of the *Independent Audit Post Approvals Requirements (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

- A43 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.
- A44 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**

- A45 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.
- A46 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), Toomelah Local Aboriginal Land Council, traditional owners and others directly impacted by the CSSI); and
- (b) relevant 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, Councils and government authorities to be consulted, during the design and work phases of the CSSI;
- (b) identify community demographics and approaches to address the needs of LOTE, CALD and vulnerable communities;
- (c) set out procedures and mechanisms for the regular distribution of accessible information about or relevant to the CSSI including use of construction hoardings, to provide information regarding construction. The information to be distributed must include information regarding current site construction activities, schedules and milestones at each construction site;
- (d) consider opportunities and make provision for the community to visit construction sites (taking into consideration workplace, health and safety requirements);
- (e) 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);
- (f) set out the procedures and mechanisms for consulting with relevant councils and government authorities required by **Condition A5**;
- (g) 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**;
- (h) 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; and
  - (iii) to resolve any issues and mediate any disputes that may arise in relation to 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 E96**.

*Note: The Proponent may continue 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 Work.

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 following information must be available to facilitate community enquiries and manage complaints one (1) month before the commencement of work and for 12 months following the completion of construction:
- (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) number of people affected in relation to a complaint; and
  - (c) means by which the complaint was addressed and whether resolution was reached, with or without mediation.
- B9 The **Complaints Register** must be provided to the Planning Secretary upon request, within the timeframe stated in the request.

### PROVISION OF ELECTRONIC INFORMATION

- B10 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;
  - (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 easy to navigate.

- B11 Where the agreement of the Planning Secretary is sought to cease providing information via a website or webpage in accordance with **Condition B10**, the Proponent must demonstrate:
- (a) operational compliance through independent audits completed in accordance with **Condition A38**;
  - (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 A15**, A **Construction Environmental Management Plan (CEMP)** must be prepared in accordance with the Department's *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 A15**;
  - (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 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 their relationship with the **ER**;
  - (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 CEMF approved by the Planning Secretary under **Condition A15**.
- C4 Where a **CEMP** (and relevant **CEMP sub-plans**) requires 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 month before the commencement of construction, or where construction is staged, no later than one 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**.
- C6 Except as provided by **Condition A15**, the following **CEMP Sub-plans** must be prepared in consultation with the relevant government agencies, relevant councils and RAPs identified for each **CEMP Sub-plan**. Evidence of consultation must be provided consistent with **Condition A5**.

	<b>Required CEMP Sub-plan</b>	<b>Relevant authorities to be consulted for each CEMP Sub-plan</b>
(a)	Traffic, transport and access	TfNSW and relevant councils
(b)	Noise and Vibration	Relevant councils
(c)	Biodiversity Management	DPI Fisheries, EHG, Crown Lands, DCCEEW and relevant councils
(d)	Soil and Water	Relevant councils, DPE Water, EHG BCS and Crown Lands
(e)	Heritage	Heritage NSW, RAPs, TALC and relevant councils
(f)	Flood Emergency Management	SES, EHG and relevant councils
(g)	Borrow Sites	EHG, EPA, 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. Nothing in this condition prevents the Proponent from combining any of the above **CEMP Sub-plans**.
2. **The Biodiversity Management Sub-Plan** must be consistent with goals and objectives, mitigation measures and monitoring requirements of the Commonwealth approved conservation advice and any Recovery Plans for all Matters of Environmental Significance.

- 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 coordination of concurrent activities of other projects as well as concurrent activities in this CSSI), as identified through ongoing environmental risk analysis, will be managed.
- C8 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;
  - (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) details of Murray Cod habitat improvement works required by **Condition E32E32**;
  - (d) the Five-clawed Worm Skink Management Plan required by **Condition E30**;
  - (e) a weed, pest and pathogen management plan consistent with the *Biosecurity Act 2015*;
  - (f) procedures for the dewatering of farm dams and coffer dams, including the relocation of aquatic fauna; and

- (g) protocols for unexpected and incidental finds of threatened species and threatened ecological communities within the construction boundary including in accordance with **Condition E22E22**, 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 agencies have been consulted and any required approvals have been obtained.

C9 The **Traffic, Transport and Access Management Sub-plan** must be consistent with any agreements with the relevant local roads authority about the use and management of local roads and include measures to:

- (a) minimise impacts on seasonal traffic, including harvest-related vehicles, and public transport (including school buses and bus stops) and freight operators;
- (b) minimise concurrent and cumulative impacts from construction of adjoining Inland Rail Projects;
- (c) inform road users and freight operators of changes to traffic Conditions;
- (d) maintain pedestrian and vehicular access to affected properties, including mechanisms to consult with affected landowners and implement measures prior to any access disruption; and
- (e) prepare a Waterway Traffic Management Plan to minimise adverse impacts to navigation on navigable waterways.

C10 The **Soil and Water Management Sub-plan** must include:

- (a) Measures to avoid erosion and sedimentation impacts to agricultural land, including in areas of high salinity and high erosion potential;
- (b) a draft water balance for the project;
- (c) the Construction Groundwater Management and Monitoring Plan (CGMMP);
- (d) information demonstrating that the required construction water resources are legally and physically available; and
- (e) mitigation measures to address construction water resource shortages that may arise.

C11 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 areas, objects or places of moderate to high significance are found to be present. Where impacts cannot be avoided, 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, work must be undertaken under the guidance of an appropriately qualified heritage specialist;
- (e) an Unexpected Heritage Finds and Human Remains Procedure in accordance with **Condition E137E137**, with the requirement that Heritage NSW is 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.*

C12 The **Flood Emergency Management Sub-plan** must include:

- (a) Consideration of the flood risks associated with the construction works;
- (b) mitigation measures for managing flood risks during construction;
- (c) flood recovery measures;
- (d) be reviewed and endorsed by the Independent Peer Reviewer who is a suitably qualified and experienced hydrologist.

- C13 The **Borrow Sites Management Sub-plan** must include:
- (a) details of construction/extraction methods and activities 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 visual impacts;
  - (c) consultation with sensitive receivers consistent with the Communication Strategy required by **Condition B1**; and
  - (d) 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 E142E142**.
- C14 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 A15**). 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

- C15 Except as provided by **Condition A15** the following **Construction Monitoring Programs** must be prepared in consultation with the relevant government 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**.

	<b>Required Construction Monitoring Programs</b>	<b>Relevant government authorities to be consulted for each Construction Monitoring Program</b>
(a)	Noise and vibration	Nil
(b)	Water usage	DPE Water
(c)	Surface Water and Groundwater	DPE Water and Crown Lands
(d)	Air Quality	Nil
(e)	Physical condition of local roads	Relevant councils

- C16 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 project to be undertaken;
  - (d) the parameters of the project 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; and
  - (j) any consultation to be undertaken in relation to the monitoring programs.
- C17 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 A15**.

- C18 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 month before the commencement of construction, or where construction is staged, no later than one month before the commencement of each stage.
- C19 **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**.
- C20 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 A15**), and all relevant baseline data for the specific construction activity has been collected.
- C21 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.
- C22 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**.
- C23 **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 Department's *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**:
- (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.
- 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 month before the commencement of operation.
- 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.

## 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 and establishment of the accommodation camp) may be undertaken during the hours of 6:30 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; and
- (b) consultation with affected receivers occurs at least every three months 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) 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 provided to the ER and 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.

On becoming aware of the need for emergency work in accordance with **(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; or

- (b) **Low impact noise activities**, including:
  - (i) construction that causes  $L_{Aeq(15\text{ minute})}$  noise levels:



1. no more than 5 dB(A) above the rating background level at any residence in accordance with the ICNG, and
  2. no more than the 'Noise affected' NMLs specified in Table 3 of the ICNG at other sensitive land uses; and
- (ii) construction that causes:
1. 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
  2. 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.

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, 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 the out-of-hours work. The Protocol must be prepared in consultation with the EPA. The Protocol must:
- (a) justify why out-of-hours work need to occur;
  - (b) 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;
  - (c) 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;
  - (d) identify procedures to facilitate the coordination of out-of-hours work approved by an EPL to ensure appropriate respite is provided;
  - (e) identify an approval process that considers the risk of activities, proposed mitigation, management, and coordination, including where:
    - (i) low risk activities can be approved by the **ER**, and

- (ii) high risk activities that are approved by the Planning Secretary; and
- (f) identify Department, EPA and community notification arrangements for approved out-of-hours work, as 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 are made at no cost to the affected institution 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"; and
- (e) the vibration limits set out in the German Standard DIN 4150-3: Structural Vibration-effects of vibration on *structures* (for structural damage).

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 adjoining Inland Rail Projects, including any work to relocate or connect utilities, to minimise cumulative and consecutive noise and vibration impacts and maximise respite for affected sensitive receivers. Coordination and mitigation measures must be detailed in the **Noise and Vibration Management Sub-plan** required by **Condition 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 adjoining development, 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 calibration purposes).
  - (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**;
  - (d) review the suitability of the operational noise mitigation measures identified in the documents listed in **Condition A1** after commencement of operation as notified in accordance with **Condition A34**, and, where necessary, investigate and identify additional noise and vibration mitigation measures required to achieve the noise criteria outlined in the Rail Infrastructure Noise Guideline once the CSSI is operational and in 2040. This review must consider local climate and impacts on existing cooling devices, and alternative at-property mitigation measures where the physical condition of a receiver building would render acoustic glazing and seals ineffective;
  - (e) 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**;
  - (f) include a consultation strategy to seek feedback from directly affected landowners on the noise and vibration mitigation measures; and
  - (g) procedures for the management of operational noise and vibration complaints.

The **ONVR** must be verified by an independent 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 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 below criteria (a)-(d) at levels defined in the documents listed under **Condition A1**:
    - (i) day time rail noise: LAeq(15hour),
    - (ii) night time rail noise: LAeq(9hour),
    - (iii) night time level crossing noise: LAeq(9hour),
    - (iv) maximum noise level: LMax.
  - (c) details of any complaints and enquiries received in relation to operational noise 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.

**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

- E20 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.

- E21 Impacts to plant community types and species credit species must not exceed those identified in the documents listed in **Tables B1 to B4** in **SCHEDULE 2** of **APPENDIX B**.
- E22 On the discovery of potential or actual impacts to any threatened communities or species not listed in **Tables B1 to B4** in **SCHEDULE 2** of **APPENDIX B**, 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 management plans or approvals have been obtained.
- E23 Any proposal to apply variation rules in the implementation of the **Biodiversity Offset Package**, as updated as required by **Condition E24** must comply with the *Ancillary rules: Reasonable steps to seek like-for-like biodiversity credits (OEH, 2017)*. Evidence of compliance with the ancillary rules must be provided to the Planning Secretary when seeking to apply the variation rules.

**Note:** Variation rules do not apply to Matters of National Environmental Significance under the Environment Protection and Biodiversity Conservation Act 1999

### **Biodiversity Offset Obligations**

- E24 The **Biodiversity Offset Package** listed in **Condition A1** must be updated to include **Project Plans** for each compensatory measure identified in Section 5 of the **Biodiversity Offset Package**. The updated **Biodiversity Offset Package** must be submitted to and approved by the Planning Secretary for approval within three months of the date of this approval. Each Project Plan must include, but not limited to:
- (a) project objectives;
  - (b) responsible parties including agencies, key stakeholders and delivery partners;
  - (c) activities to be completed including identification of the specific project sites and/or project area in which activities will be undertaken;
  - (d) funding required for each activity;
  - (e) timing for completion of each activity and where, relevant, reporting milestones to ensure completion of each measure within 2 years from the date of this approval;
  - (f) identification of potential risks to achieving project objectives, and how these risks will be managed; and
  - (g) monitoring activities related to the project objectives.
- Note:** The intent of this condition is to ensure the **Project Plans** are approved by the Planning Secretary and included in the **Biodiversity Offset Package** listed in **Condition A1** for completeness. This condition does not otherwise provide for the revision of the **Biodiversity Offset Package** listed in **Condition A1**.
- E25 The **Biodiversity Offset Package**, as approved in accordance with **Condition E24**, must be implemented no later than two (2) years from the date of this approval.
- E26 All activities completed in compliance with the **Biodiversity Offset Package** must be reported to the Planning Secretary every three months in a **Biodiversity Offset Report**. The **Biodiversity Offset Report** must include:
- (a) evidence of specific biodiversity offset measures that have been delivered, including retirement of credits and payment into the Biodiversity Conservation Fund;
  - (b) progress of remaining biodiversity offset measures and the preparation and implementation of the project plans required by **Condition E24**;
  - (c) the residual biodiversity offset obligation; and
  - (d) confirmation that the residual biodiversity offset obligation will be satisfied no later than two years from the date of this approval.

- E27 A **Final Biodiversity Offset Report** demonstrating how the **Biodiversity Offset Package**, as approved in accordance with **Condition E24**, was implemented, project objectives achieved and activities completed, must be prepared in consultation with BCS and submitted to the Planning Secretary for information no later than one month after 2 years from the date of this approval.

- E28 Within three (3) months of the date of this approval or prior to the commencement of construction, whichever occurs earlier, the Proponent must:
- (a) establish a Security Account; and
  - (b) pay the BCF Charge Amount into the Security Account in accordance with the Deed.
- The Proponent must provide evidence to support the payment of the BCF Charge Amount to the satisfaction of the Planning Secretary.

**Note:** this condition provides security to the Minister for the performance of the Proponent's obligations under this approval in relation to biodiversity offsets and release funds for payment into the Biodiversity Conservation Trust in the event that the biodiversity offsets (either in whole or part) are not delivered in accordance with the Package by the Proponent. A variation to the amount required by the condition must reflect the value of any measures within the Biodiversity Offset Package that have not been completed at the date of payment into the Security Account, determined by the offsets payment calculator established in accordance with section 6.32 of the Biodiversity Conservation Act 2016.

- E29 Construction must not commence until the Security Account is established and the BCF Charge Amount is paid into the Security Account. Evidence of payment of the BCF Charge Amount must be provided to the Planning Secretary.

#### **Five-clawed Worm Skink Management Plan**

- E30 The Proponent must prepare a Five-clawed Worm Skink Management Plan (the FCSW 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 FCSW 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 DCCEEW. The FCWS Management Plan must be submitted to and approved by the Planning Secretary prior to Work. The approved FCWS Management Plan must be implemented.

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 DCCEEW; and
- (g) where individuals are recorded on site, 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 agreed by BCS and DCCEEW.

#### **Murray Cod Habitat**

- E31 High risk construction activities must not be carried out in known Murray Cod habitat during the Murray Cod spawning period between September – November (inclusive), unless otherwise agreed by DPI Fisheries.

High risk construction activities in known Murray Cod habitat are defined as:

- (a) piling within the waterway and within the bed and banks;
- (b) construction and/or removal of temporary work platforms within the waterway; and
- (c) installation and removal of temporary waterway crossings.

- E32 Prior to Operation of the CSSI, beneficial aquatic habitat for Murray Cod must be provided within one kilometre downstream of the bridge crossing of the MacIntyre River. The beneficial aquatic habitat must be placed on the southern bank of the MacIntyre River within NSW and must include

the placement of woody debris (snags) to provide Murray Cod breeding habitat. Consultation must be undertaken with DPI Fisheries on the location, type and timing of Murray Cod habitat improvement works, prior to the commencement of the habitat improvement works.

### Key Fish Habitat

E33 Impacts to Key Fish Habitat (KFH) as defined in *Policy and Guidelines for Fish Habitat Conservation and Management* (DPI, 2013 update) must be minimised. Residual impacts to KFH must be offset at a ratio of 2:1 habitat offset requirement in accordance with the *Policy and Guidelines for Fish Habitat Conservation and Management* (DPI, 2013 update) and in consultation with DPI Fisheries.

**Note:** *The monetary offset (i.e. contribution to the DPI Fish Conservation Trust) should be the last alternative and only be pursued if all on-ground offset opportunities have been investigated at length and determined to be unachievable.*

E34 Payment of the habitat offset requirement must be made to the DPI Fish Conservation Trust Fund prior to the commencement of work that impacts KFH.

E35 A receipt confirming payment to the DPI Fish Conservation Trust Fund must be provided to the Planning Secretary within one (1) month of making the payment.

### Fauna Connectivity Design Principles

E36 A minimum width of three (3) metres and a minimum height of 1.5 metres must be provided to maintain fauna passage beneath the Mobbindry Creek, Back Creek, Forest Creek, Whalan Creek and Macintyre River rail bridges. The three-metre wide passage must be provided on both banks of the watercourses and consist of a natural substrate or other surface type that will not hinder fauna movement. The Macintyre River bridge fauna passage must be provided on the southern bank within NSW.

### Re-use of Timber

E37 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 government 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.

### Traditional Plant Resources

E38 The collection, propagation and replanting of traditional plant resources must be undertaken where these are impacted by the CSSI. Consultation with RAPs and LALCs must be undertaken in identifying these resources and areas for replanting, including identifying locations for replanting that allow for unrestricted access to the traditional plant resources, prior to the commencement of construction. If sites are owned or controlled by Council, the relevant Council must also be consulted on the locations identified in consultation with the RAPs and LALC.

**Note:** *the intent of this condition is to identify locations in consultation with the RAPs and LALCs for planting of traditional plant resources. The location selected must allow for safe access apart from the operational rail corridor.*

E39 Vegetation used in rehabilitation and / or landscaping must consider the use of traditional plant resources collected in accordance with **Condition E38**.

### FLOODING

E40 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.

- E41 The accommodation camp must be designed and configured to comply with the Quantitative Design Limits (QDLs) as specified in **SCHEDULE 1** of **APPENDIX C** during all flood events up to and including the 5% AEP event.

### **Flood Modelling**

- E42 The hydraulic and hydrological flood modelling undertaken during the design of the CSSI and the assessment of its flood impacts are to be undertaken to a standard equal to or better than those in the Preferred Infrastructure Report referenced in **Condition A1(d)**, the responses to the Request for Information referenced in **Condition A1(e)** and **A1(f)**, and in accordance with the Flood Modelling Specifications listed in **SCHEDULE 2** of **APPENDIX C**.

### **Independent Peer Review of Hydraulic and Hydrological Modelling**

- E43 Hydraulic and hydrological flood modelling completed in accordance with **Condition E42** and **SCHEDULE 2** of **APPENDIX C** must be independently peer reviewed.

- E44 The peer review 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, 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).

- E45 The peer reviewer must verify whether the flood model and the modelled CSSI design complies with **Condition E42** and **SCHEDULE 2** of **APPENDIX C**. The peer review includes undertaking the following tasks:

- (a) a comprehensive review of 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 required by **Condition E53**;
- (e) review of the monitoring methodologies required by **Condition E78**.

*Note: the review of the monitoring methodologies required by (e) above can be completed separately.*

- E46 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.

- E47 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 E71**.

### **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 E68**.*



### **Independent Peer Review of site specific erosion threshold velocity methods**

- E48 The method(s) to be used to determine site specific erosion threshold velocities are to be independently peer reviewed.
- E49 The peer review must be undertaken by a suitably qualified and experienced geomorphologist or scour/erosion specialist with experience in calculating erosion threshold velocities of erosive floodplain soils using both laboratory and field based approaches to calculating erosion threshold velocity. The geomorphologist/specialist must be independent of the Proponent and the organisation(s) that prepared the flood model or detailed design, 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).
- E50 The peer reviewer must verify:
- (a) whether the proposed method(s) used are appropriate for determining the erosion threshold velocities for a worst case scenario;
  - (b) that the direct and indirect method(s) utilised for selection of erosion threshold velocities were appropriate; and
  - (c) that the calculated erosion threshold velocities are suitable for adoption in the flood assessment and design process.
- E51 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 E71**.

### **Impacts on Flood Behaviour**

- E52 The CSSI must be designed with the objective to meet or improve upon the flood performance identified in the Preferred Infrastructure Report referenced in **Condition A1(d)**, and the response to the Requests for Information referenced in **Condition A1(e)** and **A1(f)**. Variation consistent with the requirements of this approval at the rail corridor is permitted to effect minor changes to the Preferred Infrastructure Report referenced in **Condition A1(d)**, and the response to the Requests for Information referenced in **Condition A1(e)** and **A1(f)** design with the intent of improving the flood performance of the CSSI.
- E53 The CSSI must be designed and constructed so changes in the flood behaviour comply with the following requirements, except as provided in **Condition E56** below:
- (a) will not exceed the Quantitative Design Limits (QDLs) listed in **SCHEDULE 1 of APPENDIX C**, as assessed in accordance with the flood modelling specifications in **SCHEDULE 2 of APPENDIX C**; and;
  - (b) will not redistribute peak flood flows by more than 5% at the locations shown in the *Peak Flow Distribution (1976) Map for the Floodplain Management Plan for the Border Rivers Valley Floodplain 2020*.
- E54 The requirements of **Conditions E52** and **E53** 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:
    - (i) the 1976 flood event as described in the PIR; or
    - (ii) the 1% AEP event as described in the PIR;whichever is the larger,
  - (c) in any storm duration; and
  - (d) under floodplain conditions comprising the larger flood impact of the:
    - (i) 2019 levees data obtained from Lidar survey as described in the EIS and PIR (2019 Lidar levees); or
    - (ii) BRVFMP levees data obtained from the BRVFMP (BRVFMP levees).
- E55 If the CSSI does not meet the requirements of **Condition E53** in relation to resultant velocity that exceeds the erosion threshold value (ETV), the Proponent must prepare and implement the **Operational Erosion Mitigation and Management Program** required by **Condition E72**.

E56 If it is not practical to modify the design of the CSSI to meet the requirements of **Condition E53**, the Proponent must, in instances of non-compliance with **Condition E53**:

- (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 E53** is to commence until the Flood Design Verification Report required by **Condition E69** is approved in accordance with **Condition E71**.

No work subject of a non-compliance with **Condition E53** is to commence until agreement is reached with a roads authority (where relevant) or an affected landowner. Where agreement cannot be reached, all relevant recommendations of the Independent Flood Impact Assessment Panel must be implemented in accordance with the IFIAP recommendations and **Conditions E64** and **E65**.

#### **Notes**

*1: Nothing in this condition prevents the use of mediation in accordance with the Communication Strategy required by **Condition B2**.*

*2: The process for land acquisition must be consistent with any land acquisition policy or protocol held by the Applicant that is current at the time of acquisition.*

*3: 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.*

E57 The proponent must prepare a **Flood Design Consultation Protocol**, to outline the steps the Proponent will take where there are non-compliances with the QDLs, in accordance with **Condition E56**, 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 E58**;

The Flood Design Consultation Protocol must be made publicly available in accordance with **Condition B10**.

#### **Independent Flood Impact Assessment Panel**

E58 Should an agreement not be reached in accordance with **Condition E56(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 **SCHEDULE 1** of **APPENDIX C** to an **Independent Flood Impact Assessment Panel (IFIAP)** for expert advice and recommendations to address the impacts of the non-compliance with the QDL.

- E59 The Proponent must establish an **IFIAP** before Work that have the potential to result in non-compliance with **Condition E53**. 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 E61**. 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**.
- E60 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.
- E61 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 E53**. 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 B10**, within one month of the establishment of the **IFIAP**.
- E62 Any changes requested by the **IFIAP** to the Terms of Reference must be submitted to the Planning Secretary for approval.
- E63 The **IFIAP** will be responsible for independently:
- (a) reviewing documents prepared under **Condition E56**;
  - (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.
- E64 The Proponent must implement any recommendations of the **IFIAP** under **Condition E63(d)** unless otherwise agreed 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 can not implement these recommendations other than for reasons where the landowner has refused or rejected the recommendations.
- E65 Any offer of acquisition in accordance with **Condition E64** 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.
- Note:** *The process for land acquisition must be consistent with any land acquisition policy or protocol held by the Proponent that is current at the time of acquisition.*
- E66 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 E64** must be provided to the Planning Secretary for information and, or if finalised, attached to the **Flood Design Verification Report** required by **Condition E69**.

- E67 Construction of permanent works that are the subject of or directly related to matters under consideration 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**.

### Interim Flood Design Verification Report

- E68 The Proponent may provide a program for review by the Planning Secretary of an interim **FDVR** at defined point/s of project design development, 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) allow each agency and the Planning Secretary at least one month for each review of the interim **FDVR**;
- (c) 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 E45**; and
  - (ii) each of the requirements of the **FDVR** detailed in **Condition E70**; and
- (d) detail the process for revising the **FDVR** in response to comments provided on the interim **FDVR**.

### Flood Design Verification Report

- E69 A **Flood Design Verification Report (FDVR)** must be prepared to detail the flood behaviour under existing conditions and with the final detailed design of the approved CSSI. The **FDVR** must demonstrate compliance (or otherwise) with **Conditions E52 to E56**.

- E70 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 **SCHEDULE 2 of APPENDIX C**;
  - (v) a copy of the flood modelling outputs required to demonstrate compliance with **Condition E52 to E56**;
- (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 E52 to E54**, including a table of all non-compliances, and documentation of the process and outcomes required by **Condition E55 and E56**. Written agreements, in accordance with **Condition E56**, may be provided to the Planning Secretary separate to the **FDVR**;
- (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 **SCHEDULE 1 of APPENDIX C** and causes the resultant velocity to exceed the erosive threshold; or
  - (ii) is within an area that is actively eroding.
- (f) identification of matters under consideration by the IFIAP in accordance with **Condition E58**;
- (g) a sensitivity analysis that considers conditions that lead to different spatial distribution of flows arriving at the greenfield component of the project for all flooding events up to

and including the 1976 flood to determine consistency with the requirements of **Condition E53**;

- (h) 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 including blockage of cross drainage structures;
  - (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
- (i) a detailed response outlining how recommendations of the independent peer reviews required by **Conditions E43** and **E48** have been incorporated into the flood modelling or justification for why recommendations have not been incorporated;
- (j) the Operational Erosion Monitoring and Mitigation Program required by **Conditions E72** to **E74**; and
- (k) a summary of comments received on the Interim **FDVR** and how these were addressed where an Interim **FDVR** has been prepared in accordance with **Condition E68**.

E71 The **Flood Design Verification Report** must be submitted to the Planning Secretary for approval at least one month prior to the commencement of construction of permanent works that may impact on flooding. Works that may impact on flooding 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 E58** to **E67**.

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 **Condition E43** or **E48**, the Planning Secretary will consider how any findings or recommendations made by the Independent Peer Reviewer were addressed and resolved.*

#### **Operational Erosion Mitigation and Monitoring Program**

E72 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 **SCHEDULE 1** of **APPENDIX C** and causes the resultant velocity to exceed the erosive threshold; or
- (b) is within an area that is actively eroding.

E73 The OEMMP must be prepared in consultation with EHG, DPE Water, relevant council(s) and landowner(s).

E74 The OEMMP must include:

- (a) All design and mitigation measures implemented within the project corridor as identified in **Condition E70** and any agreements for mitigation measures outside the rail corridor required by **Condition E56(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 E72**, 50 metres in the upstream or downstream direction 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;
  - (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 E72 to E74 apply in addition to the requirements of Condition E56.*

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

E75 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.

- (a) The FERP must be prepared by an experienced flood emergency response specialist who has extensive experience in preparation of these plans.
- (b) This specialist 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) The FERP must 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**

E76 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 and 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, 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 local council, 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 the FERP (required by **Condition E75**).

**Note:** *affected parties include but are not limited to:*

- a) *land and property owners;*
- b) *infrastructure owners;*
- c) *EHG;*
- d) *SES; and*
- e) *the relevant council(s), state and local government agencies.*

#### **Flood Review after Construction**

E77 Following substantial completion of a section or stage of the project 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%, 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 E69**;
- (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 E53**:
  - (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 for information, EHG and relevant council(s) 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.

- E78 To analyse the lengths of rail corridor impacted by rainfall and consequential flood events for the purposes of **Condition E77**, 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 rainfall monitoring stations suitable for each catchment, as well as utilising the available streamflow data, water level records, weather radar and other hydrological/meteorological data sources. 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. The methodology must also be reviewed by the Independent Peer Reviewer required by **Condition E45**.

### Information Sharing

- E79 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

- E80 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.
- E81 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 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 E56**;
- (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.

E82 Unless an EPL is in force in respect to the CSSI and that licence specifies alternative criteria, discharges from construction water treatment plants 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.

E83 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.

## TRAFFIC, TRANSPORT AND ACCESS

E84 Construction traffic must prioritise the use of Bruxner Way and North Star Road for site access and must not use other local roads or privately-owned roads unless no alternative access is available. Use of private access roads must be in accordance with **Conditions A22 and A23**. Local or privately owned roads used for access to ancillary facilities and construction sites must be identified in the Construction Traffic, Transport and Access Management Sub-plan required by **Condition C6**.

E85 Before any non-State road is used by a heavy vehicle for the purposes of construction of the CSSI, a Road Dilapidation Report must be prepared for the road. A copy of the Road Dilapidation Report must be provided to the relevant road authority(ies) and landowners within one (1) month of completion of the survey and at least two weeks before the road is used by heavy vehicles associated with the construction of the CSSI.



- E86 If damage to roads occurs as a result of the construction of the CSSI, the Proponent must, within six months of the completion of construction, either (at the 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 E85**; 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.
- E87 Damage to roads that affects road safety or trafficability as a result of the construction of the CSSI must be rectified as soon as practicable after the damage is identified.
- E88 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**

- E89 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 relevant councils. The report must:
- (a) illustrate the location of all public level crossings which traverse the CSSI;
  - (b) 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;
  - (c) where no works are proposed at a public crossing, provide reason for the decision;
  - (d) include measures to avoid potential short-stacking at level crossings; and
  - (e) provide justification for any proposed closures.

The assessment of level crossings must utilise 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** and the Traffic Impact Assessment Appendix M of the EIS.

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.

- E90 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 closure or upgrading of a private level crossing. The report must:
- (a) illustrate the location of all private level crossings which traverse the CSSI, including informal level crossings that have been used following the closure of the existing non-operational rail line;
  - (b) list, and identify on a figure, any private level crossings that will be closed or upgraded;
  - (c) describe the treatments that will be implemented at 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.

Closures, relocations or modifications of formal private level crossings must be included in the **Individual Property Management Plans** required by **Condition E96**, noting that any closure, relocation or modification must be in accordance with *AS/RISSB 7658:2012 Railway Infrastructure – Railway Level Crossing* and relevant rail safety legislation. The Proponent must consult with relevant landowners on the design of the crossing and where consistent with relevant safety standards and legislation, incorporate reasonable landowner requirements into the design.

- E91 The **Public Level Crossing Treatment Report** and **Private Level Crossing Treatment Report** must be submitted to the Planning Secretary for information at least one (1) month prior to the 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**

- E92 In 2028 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 E89**;
- (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.*

- E93 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.

- E94 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, RMS and relevant councils for information within 60 days of its completion.

#### **Property Access**

- E95 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, safe and convenient stock and machinery movement across the rail corridor.

- E96 **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 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.*

- E97 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.
- E98 The Proponent must maintain existing access to properties during the entirety of work where practicable.
- E99 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 road determined through consultation with the landowner, at no cost to the property landowner, unless otherwise agreed with the landowner.
- E100 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.
- E101 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.

### **Road Safety**

- E102 The CSSI (including any new overbridges, new or modified roads, and new or modified level crossings) must be designed to meet relevant design, engineering and safety guidelines, including the Austroads Guide to Traffic Management, agreed in consultation with the roads authority..
- E103 The design of any new road overbridges or new or modified roads must be developed in consultation with the relevant roads authority prior to construction of the new road overbridges or new or modified roads.
- E104 New road overbridges on Bruxner Way must allow at least 5.8 metre clearance and on Tucka Tucka Road must allow at least 5.675 metre clearance for oversized vehicles and must be designed in consultation with and endorsed by the relevant roads authority.
- E105 The Bruxner Way realignment must be designed and constructed with a minimum design speed of 110km/h. The design must be finalised in consultation with and endorsed by the relevant roads authority.
- E106 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.
- E107 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 *Austrroads 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**

E108 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.

## **SOCIAL IMPACTS**

E109 Social impacts associated with the CSSI must be minimised and managed, and social benefits maximised, particularly in relation to:

- (a) way of life, including how people live, how they get around, how they work, how they play, and how they interact each day;
- (b) community, including composition, cohesion, character, how the community functions, resilience, and people's sense of place;
- (c) accessibility, including how people access and use infrastructure, services and facilities, whether provided by a public, private, or not-for-profit organisation;
- (d) culture, both Aboriginal and non-Aboriginal, including shared beliefs, customs, practices, obligations, values and stories, and connections to Country, land, waterways, places and buildings;
- (e) health and wellbeing, including physical and mental health especially for people vulnerable to social exclusion or substantial change, psychological stress resulting from financial or other pressures, access to open space and effects on public health;
- (f) surroundings, including ecosystem services such as shade, pollution control, erosion control, public safety and security, access to and use of the natural and built environment, and aesthetic value and amenity;
- (g) livelihoods, including people's capacity to sustain themselves through employment or business; and
- (h) decision-making systems, including the extent to which people can have a say in decisions that affect their lives, and have access to complaint, remedy and grievance mechanisms.

### **Social Impact Management Plan**

E110 A Social Impact Management Plan (SIMP) must be prepared for the CSSI. The Plan must guide the management of the social impacts of the CSSI prior to and during construction, and for at least three years following the commencement of operation, and be prepared by suitably qualified and experienced person/s. The SIMP must:

- (a) identify any revisions to or refinement of the assessment of social impacts in the documents listed in **Condition A1**;
- (b) be developed with involvement from affected communities and businesses, LALC/s, community organisations and representative groups, and councils;
- (c) include mitigation measures, commitments and actions informed by SMART principles; and
- (d) include a Code of Conduct for employees and contractors.

The SIMP must be submitted to the Planning Secretary at least two months prior to the commencement of construction and approved by the Planning Secretary prior to the commencement of construction.

The approved SIMP must be implemented by adequately resourced and suitably qualified and experienced person/s.

E111 Following the period of three years post operation, the Proponent must, :

- (a) demonstrate how the objectives of the SIMP have been met through an independent audit completed in accordance with **Condition A38**; or
- (b) advise the Planning Secretary of an additional duration for the implementation of the SIMP in order to achieve the objectives of the SIMP.

E112 The SIMP must include specific details of the commitments, programs and timing to secure and enhance positive social outcomes associated with the CSSI, including but not limited to those identified in the documents listed in **Condition A1** and:

- (a) objectives for economic participation and capacity building of local, youth and Aboriginal people through training, employment, and business participation and specific measures to be implemented;
- (b) direct (e.g. construction workforce, Aboriginal cultural responsiveness training, collaboration in the management of social impacts) and indirect (e.g. servicing of the accommodation camp and construction sites, landscaping, fencing) local community and Aboriginal participation in the CSSI;
- (c) gender equity in the construction workforce;
- (d) delivery of tangible and identifiable legacy benefits to affected communities;
- (e) improvements in community wellbeing (e.g. sponsorships and donations programs);
- (f) improvements in social and cultural cohesion within the local community.

E113 The SIMP must include specific details of the management and mitigation measures to avoid, minimise and/or mitigate negative social impacts, including but not limited to:

- (a) identification of affected communities and social impacts, including cumulative social impacts to be mitigated;
- (b) impacts of the construction workforce on local housing availability and affordability, demand for local services and emergency services, including contingency measures if the accommodation camp is not utilised;
- (c) targeted mitigation measures to address social impacts including but not limited to those committed to in the Social Impact Assessment accompanying the EIS, the documents listed in **Condition A1**, and as required by conditions of this approval; and
- (d) details of how these measures will be targeted and adapted to meet the needs of affected communities, with a particular focus on the needs of vulnerable communities.

E114 The SIMP must include a Social Impact Monitoring Program to monitor, review, and communicate the effectiveness of the measures in **Conditions E112** and **E113**, including, but not limited to:

- (a) a description of the objectives (i.e. the desired social outcomes), methodology and timing of the program;
- (b) a description of the parameters or indicators that indicate the SIMP's success and person/s responsible for monitoring performance;
- (c) ongoing analysis of social risks and opportunities;
- (d) undertaking additional research, if necessary, to address new or changed social risks and impacts;
- (e) procedures for analysing and comparing the results of monitoring against the predicted social impacts and results of previous monitoring;
- (f) details about how the potentially affected communities can participate in the implementation and review of the monitoring program;
- (g) mechanisms for data-sharing for cumulative impacts;
- (h) a program for independent auditing and reporting to the Planning Secretary that reflects the project's construction program or stages; and
- (i) adaptive management processes where social outcomes do not meet success criteria.

### **Accommodation Camp**

E115 The accommodation camp must be established prior to any construction requiring non-local labour (excluding establishment of the camp). The accommodation camp must be designed to ensure sufficient capacity to house the peak workforce and operated so as to ensure for the surrounding community and camp occupants:

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

E116 The accommodation camp must be managed and appropriately staffed to minimise amenity and social impacts associated with the running of the camp, both within and outside of the camp.

Suitably qualified and experienced resident camp manager(s), security and paramedic staff must be employed and be available while the accommodation camp is running.

- E117 Delivery servicing is limited to the work hours specified in **Conditions E1** and **E2**, unless any out of hours noise related to the the delivery servicing complies with **Condition E3**.
- E118 Outdoor recreation areas of the accommodation camp can only be used between 7.00am and 10.00pm daily.
- E119 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.
- E120 Telecommunications upgrades undertaken for the Accommodation Camp must consider the ability to provide long-term improvements to mobile telephone and internet capacity in North Star.

## SPOIL MOUNDS

- E121 Permanent spoil mounds are to be located:
- within the rail corridor;
  - at least 50 metres from any watercourse or culvert or where there is a risk of erosion or flood impacts during any flood event ;
  - at least 500 metres from any residence; and
  - outside the drip lines of trees located on private property.

**Note:** For the purpose of **Condition E121(d)**, the Proponent must not affect trees outside of the rail corridor for the purpose of preventing those trees' driplines overhanging spoil mounds.

- E122 Permanent spoil mounds are to comply with the following requirements:
- 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);
  - not result in the clearing or covering of native vegetation beyond that described in the documents listed in **Condition A1**;
  - not result in heritage impacts beyond that described in the documents listed in **Condition A1**;
  - not result in additional changes to the upstream flooding regime beyond those described in the documents listed in **Condition A1**;
  - not affect the downstream flood regime;
  - not impede the flow of water through culverts;
  - not contain any contaminated soil classified as unsuitable for the proposed land use, acid sulphate soils or green waste;
  - are to be stabilised during construction of the CSSI; and
  - are to be stabilised prior to operation of the CSSI.

## VISUAL AMENITY AND LANDSCAPE IMPACTS

- E123 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.
- E124 The proponent must prepare a **Visual and Landscape Impact Mitigation Plan** to mitigate operational visual and landscape impacts of the CSSI. In preparing the plan, the Proponent must:
- consult landowners and residents within 100 metres of the CSSI in North Star village and within 500 metres of the CSSI elsewhere ;
  - 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;
  - 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 information no later than six (6) months after the commencement of construction of the CSSI.

- E125 Design of the Macintyre River bridge and Tucka Tucka Road rail bridge must be informed by consultation with Toomelah LALC and the local community to consider opportunities for interpretation, including the use of Aboriginal designs, patterns and motifs or other appropriate visual interpretations. Evidence of consultation and details of interpretation initiatives developed in consultation with Toomelah LALC must be provided to the Planning Secretary for information one (1) month prior to commencing construction of the bridges.

## HERITAGE

- E126 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.
- E127 The Proponent must not harm, modify, or otherwise impact human remains uncovered during the construction of the CSSI.
- E128 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**.
- E129 The Proponent must undertake **Heritage Photographic Archival Recordings** (of heritage items and potential heritage items associated with the existing rail line (including culverts/underbridges with timber components) and culturally modified trees which have been identified for demolition in the documents listed in **Condition A1**).
- E130 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 Heritage

- E131 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.
- E132 The Registered Aboriginal Parties (RAPs) must be kept informed about 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.
- E133 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**.
- E134 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 approval prior to any test or salvage excavation.

- E135 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, Toomelah LALC and the RAPs within 24 months of the completion of the Aboriginal archaeological excavations (both test and salvage).

- E136 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 E137** and include registration in the Aboriginal Heritage Information Management System (AHIMS).

#### **Unexpected Heritage Finds**

- E137 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.
- E138 The **Unexpected Heritage Finds and Human Remains Procedure**, as submitted to the Planning Secretary, must be implemented for the duration of Work.

*Note: Human remains that are found unexpectedly during the carrying out of Work may be under the jurisdiction of the NSW State Coroner and must be reported to the NSW Police immediately.*

## **LAND USE AND PROPERTY**

### **Condition Surveys and Rectification**

- E139 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.
- E140 After completion of construction, condition surveys of all items for which condition surveys were undertaken in accordance with **Condition E139** 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.
- E141 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

E142 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 C13**.

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.*

E143 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

E144 The CSSI must achieve a minimum 'excellent' rating for both 'Design' and 'As built', 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

E145 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

E146 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 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.

E147 Where the results of site investigations required by **Condition E146** 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

E148 If remediation is required under **Condition E147**, 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.

E149 Nothing in **Conditions E146** to **E148** 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.

E150 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.

E151 The **Unexpected Finds Procedure for Contamination** must be implemented throughout Work.

## AIR QUALITY

E152 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

E153 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 E155**.

E154 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.

E155 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.

**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.*

E156 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 A43** 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    Project Segments**

#### **Greenfields Segment**

Approximately 5 kilometres in length from a point approximately 3.8 kilometres south of the Bruxner Way and Tucka Tucka Road intersection to the Queensland – New South Wales border the midway point of the Macintyre River.

#### **Brownfields Segment**

Extends approximately 25 kilometres from North Star to approximately 3.8 kilometres south of the Bruxner Way and Tucka Tucka Road intersection.

#### **Early Works Segment**

Comprised of specific areas used during construction such as laydown areas, temporary accommodation and setup areas.

#### **Borrow Pits**

New and existing borrow pits to source construction material for the CSSI with each potential borrow pit numbered.

The location of each of these project segments is shown in **Figure B1 in Schedule 1 of Appendix B.**

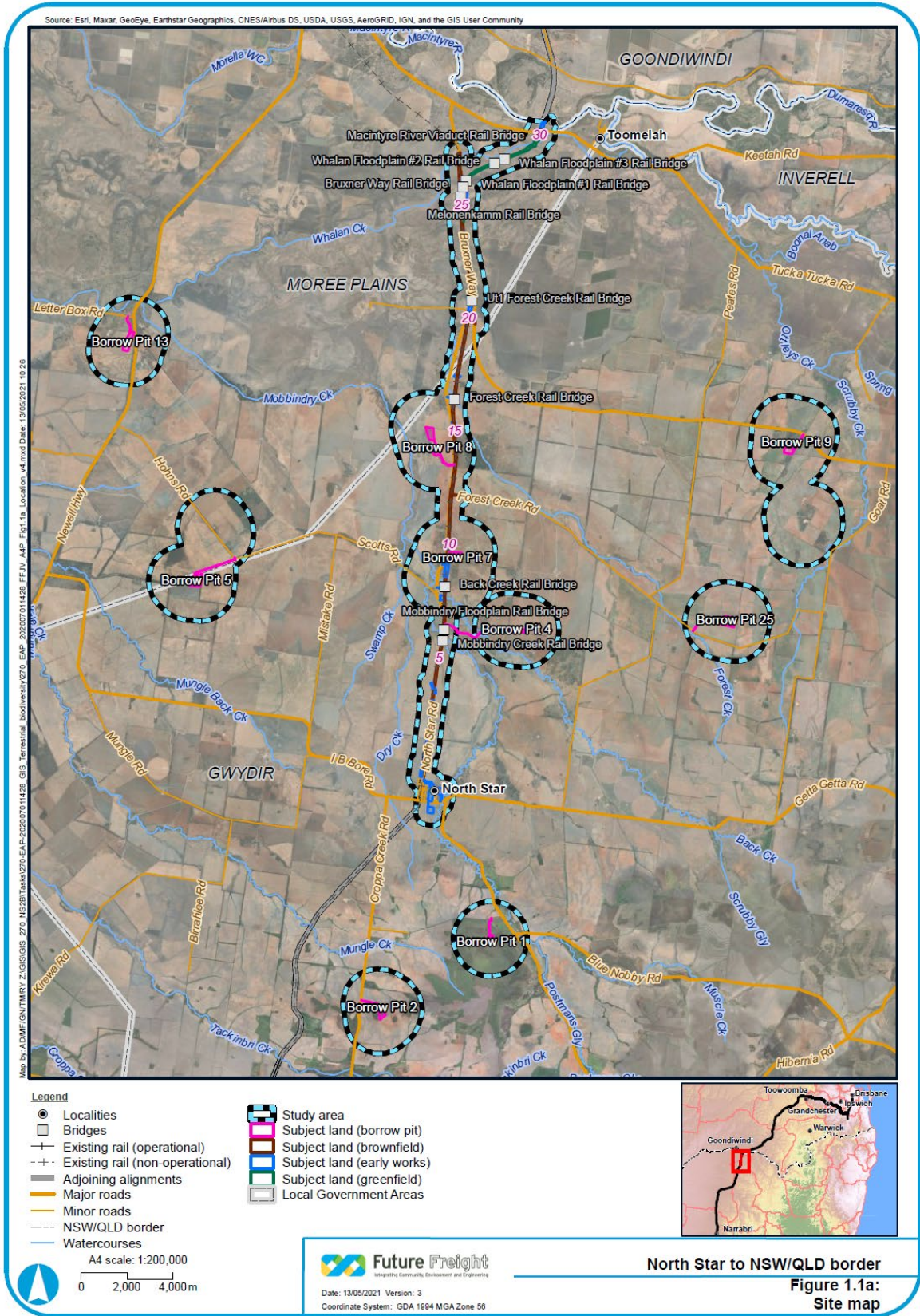


Figure B1 Map of Project Segments

## SCHEDULE 2 Biodiversity Impacts

Table B1 Biodiversity impacts within the project Greenfield segment

Segment – Greenfield alignment segment	Native vegetation impacted (ha)
<b>Ecosystems</b>	
■ PCT 36 - River Red Gum tall to very tall open forest/woodland wetland on rivers on floodplains mainly in the Darling Riverine Plains Bioregion	0.84
■ PCT 52 - Queensland Bluegrass +/- Mitchell Grass grassland on cracking clay floodplains and alluvial plains mainly the northern-eastern Darling Riverine Plains Bioregion	26.1
■ PCT 192 - Silver-leaved Ironbark - Poplar Box +/- Ironwood shrub - grass woodland on rises in the north-western plains of NSW – Low	1.6
■ PCT 192 - Silver-leaved Ironbark - Poplar Box +/- Ironwood shrub - grass woodland on rises in the north-western plains of NSW – Medium	2.3
■ PCT 244 - Poplar Box grassy woodland on alluvial clay-loam soils mainly in the temperate (hot summer) climate zone of central NSW (wheatbelt). – Medium	3.8
■ PCT 247 - Lignum shrubland wetland on regularly flooded alluvial depressions in the Brigalow Belt South Bioregion and Darling Riverine Plains Bioregion – Low	2.2
■ PCT 628 - Carbeen +/- Coolabah grassy woodland on floodplain clay loam soil on north-western NSW floodplains, mainly Darling Riverine Plain Bioregion – Low	1.2
<b>Threatened species</b>	
■ <i>Desmodium campylocaulon</i> (Creeping tick-trefoil)	29.9
■ <i>Dichanthium setosum</i> (Bluegrass)	26.1
■ <i>Digitaria porrecta</i> (Finger panic grass)	32.1
■ <i>Homopholis belsonii</i> (Belson's panic)	29.9
■ <i>Lepidium monoplocoides</i> (Winged peppergrass)	25.82
■ <i>Swainsona murrayana</i> (Slender Darling pea)	29.9
■ <i>Calyptorhynchus lathamii</i> (Glossy black-cockatoo)	6.94
■ <i>Hoplocephalus bitorquatus</i> (Pale-headed snake)	6.94
■ <i>Tyto novaehollandiae</i> (Masked owl)	6.94
■ <b>Total</b>	<b>38.04</b>

Table B2 Biodiversity impacts within the project Brownfield segment

Segment – Alignment Brownfield	Native vegetation impacted (ha)
<b>Ecosystems</b>	
■ PCT 27 - Weeping Myall open woodland of the Darling Riverine Plains Bioregion and Brigalow Belt South Bioregion – Medium	0.02
■ PCT 27 - Weeping Myall open woodland of the Darling Riverine Plains Bioregion and Brigalow Belt South Bioregion - Low	4
■ PCT 35 - Brigalow - Belah open forest/woodland on alluvial often gilgaied clay from Pilliga Scrub to Goondiwindi, Brigalow Belt South Bioregion - High	5.64
■ PCT 35 - Brigalow - Belah open forest/woodland on alluvial often gilgaied clay from Pilliga Scrub to Goondiwindi, Brigalow Belt South Bioregion – Low	2.4
■ PCT 36 - River Red Gum tall to very tall open forest/woodland wetland on rivers on floodplains mainly in the Darling Riverine Plains Bioregion - High	0.51
■ PCT 36 - River Red Gum tall to very tall open forest/woodland wetland on rivers on floodplains mainly in the Darling Riverine Plains Bioregion – Medium	1.83
■ PCT 52 - Queensland Bluegrass +/- Mitchell Grass grassland on cracking clay floodplains and alluvial plains mainly the northern-eastern Darling Riverine Plains Bioregion – Medium	7.4
■ PCT 53 - Shallow freshwater wetland sedgeland in depressions on floodplains on inland alluvial plains and floodplains – Medium	3
■ PCT 55 - Belah woodland on alluvial plains and low rises in the central NSW wheatbelt to Pilliga and Liverpool Plains regions. – High	0.64
■ PCT 56 - Poplar Box - Belah woodland on clay-loam soils on alluvial plains of north-central NSW - High	32.07
■ PCT 56 - Poplar Box - Belah woodland on clay-loam soils on alluvial plains of north-central NSW - Medium	4.46
■ PCT 56 - Poplar Box - Belah woodland on clay-loam soils on alluvial plains of north-central NSW – Low	74.5
■ PCT 98 - Poplar Box - White Cypress Pine - Wilga - Ironwood shrubby woodland on red sandy-loam soils in the Darling Riverine Plains Bioregion and Brigalow – High	2.2
■ PCT 244 - Poplar Box grassy woodland on alluvial clay-loam soils mainly in the temperate (hot summer) climate zone of central NSW (wheatbelt). – Medium	3.6
■ PCT 244 - Poplar Box grassy woodland on alluvial clay-loam soils mainly in the temperate (hot summer) climate zone of central NSW (wheatbelt). – Low	3.7
■ PCT 247 - Lignum shrubland wetland on regularly flooded alluvial depressions in the Brigalow Belt South Bioregion and Darling Riverine Plains Bioregion - Medium	6.2
■ PCT 247 - Lignum shrubland wetland on regularly flooded alluvial depressions in the Brigalow Belt South Bioregion and Darling Riverine Plains Bioregion – Low	2.3
■ PCT 628 - Carbeen +/- Coolabah grassy woodland on floodplain clay loam soil on north-western NSW floodplains, mainly Darling Riverine Plain Bioregion - Medium	2.9
■ PCT 628 - Carbeen +/- Coolabah grassy woodland on floodplain clay loam soil on north-western NSW floodplains, mainly Darling Riverine Plain Bioregion – Low	8.2
<b>Threatened species</b>	
■ <i>Desmodium campylocaulon</i> (Creeping tick-trefoil)	0.28
■ <i>Dichanthium setosum</i> (Bluegrass)	-
■ <i>Digitaria porrecta</i> (Finger panic grass)	103.87
■ <i>Homopholis belsonii</i> (Belson's panic)	0.07
■ <i>Calyptorhynchus lathami</i> (Glossy black-cockatoo)	47.57
■ <i>Hoplocephalus bitorquatus</i> (Pale-headed snake)	1.56
■ <i>Petaurus norfolcensis</i> (Squirrel glider)	32.24
■ <i>Phascolarctos cinereus</i> (Koala)	22.9
■ <i>Tyto novaehollandiae</i> (Masked owl)	50.8
<b>Total</b>	<b>165.57</b>

Table B3 Biodiversity impacts within the project Early works segment

Segment – Alignment Early works	Native vegetation impacted (ha)
<b>Ecosystems</b>	
■ PCT 27 - Weeping Myall open woodland of the Darling Riverine Plains Bioregion and Brigalow Belt South Bioregion – Low	4.6
■ PCT 35 - Brigalow - Belah open forest/woodland on alluvial often gilgaied clay from Pilliga Scrub to Goondiwindi, Brigalow Belt South Bioregion - High	5.53
■ PCT 35 - Brigalow - Belah open forest/woodland on alluvial often gilgaied clay from Pilliga Scrub to Goondiwindi, Brigalow Belt South Bioregion – Low	1.7
■ PCT 36 - River Red Gum tall to very tall open forest/woodland wetland on rivers on floodplains mainly in the Darling Riverine Plains Bioregion - High	0.66
■ PCT 36 - River Red Gum tall to very tall open forest/woodland wetland on rivers on floodplains mainly in the Darling Riverine Plains Bioregion - Medium	1.6
■ PCT 53 - Shallow freshwater wetland sedgeland in depressions on floodplains on inland alluvial plains and floodplains _Medium	1.2
■ PCT 56 - Poplar Box - Belah woodland on clay-loam soils on alluvial plains of north-central NSW - High	4.3
■ PCT 56 - Poplar Box - Belah woodland on clay-loam soils on alluvial plains of north-central NSW - Medium	4.7
■ PCT 56 - Poplar Box - Belah woodland on clay-loam soils on alluvial plains of north-central NSW – Low	13
■ PCT 192 - Silver-leaved Ironbark - Poplar Box +/- Ironwood shrub - grass woodland on rises in the north-western plains of NSW – Medium	1.5
■ PCT 192 - Silver-leaved Ironbark - Poplar Box +/- Ironwood shrub - grass woodland on rises in the north-western plains of NSW – Low	1.5
■ PCT 628 - Carbeen +/- Coolabah grassy woodland on floodplain clay loam soil on north-western NSW floodplains, mainly Darling Riverine Plain Bioregion - Medium	3.1
■ PCT 628 - Carbeen +/- Coolabah grassy woodland on floodplain clay loam soil on north-western NSW floodplains, mainly Darling Riverine Plain Bioregion – Low	11
<b>Threatened species</b>	
■ <i>Digitaria porrecta</i> (Finger panic grass)	17.18
■ <i>Homopholis belsonii</i> (Belson's panic)	2
■ <i>Polygala linariifolia</i> (Native Milkwort)	
■ <i>Calyptorhynchus lathamii</i> (Glossy black-cockatoo)	16.3
■ <i>Hoplocephalus bitorquatus</i> (Pale-headed snake)	4.26
■ <i>Petaurus norfolcensis</i> (Squirrel glider)	2.66
■ <i>Phascolarctos cinereus</i> (Koala)	4.86
■ <i>Tyto novaehollandiae</i> (Masked owl)	15.23
■ <b>Total</b>	<b>54.89</b>



Table B4 Biodiversity impacts within the project Borrow pits segment

<b>Segment – Borrow Pits</b>	<b>Native vegetation impacted (ha)</b>
<b>Borrow Pit 1</b>	<b>6.17</b>
<b>Ecosystems</b>	
<ul style="list-style-type: none"> <li>■ PCT 35 - Brigalow - Belah open forest/woodland on alluvial often gilgaied clay from Pilliga Scrub to Goondiwindi, Brigalow Belt South Bioregion – Medium</li> </ul>	0.67
<ul style="list-style-type: none"> <li>■ PCT 35 - Brigalow - Belah open forest/woodland on alluvial often gilgaied clay from Pilliga Scrub to Goondiwindi, Brigalow Belt South Bioregion – Low</li> </ul>	0.9
<ul style="list-style-type: none"> <li>■ PCT 147 - Mock Olive - Wilga - Peach Bush - Carissa semi-evergreen vine thicket (dry rainforest) mainly on basalt soils in the Brigalow Belt South Bioregion - High</li> </ul>	1.2
<ul style="list-style-type: none"> <li>■ PCT 147 - Mock Olive - Wilga - Peach Bush - Carissa semi-evergreen vine thicket (dry rainforest) mainly on basalt soils in the Brigalow Belt South Bioregion - Medium</li> </ul>	3.4
<b>Threatened species</b>	
<ul style="list-style-type: none"> <li>■ <i>Digitaria porrecta</i> (Finger panic grass)</li> </ul>	-
<ul style="list-style-type: none"> <li>■ <i>Homopholis belsonii</i> (Belson's panic)</li> </ul>	-
<ul style="list-style-type: none"> <li>■ <i>Tyto novaehollandiae</i> (Masked owl)</li> </ul>	-
<b>Total</b>	<b>6.17</b>
<b>Borrow Pit 2</b>	<b>13.57</b>
<b>Ecosystems</b>	
<ul style="list-style-type: none"> <li>■ PCT 35 - Brigalow - Belah open forest/woodland on alluvial often gilgaied clay from Pilliga Scrub to Goondiwindi, Brigalow Belt South Bioregion -Low</li> </ul>	0.67
<ul style="list-style-type: none"> <li>■ PCT 418 - White Cypress Pine - Silver-leaved Ironbark - Wilga shrub grass woodland of the Narrabri-Yetman region, Brigalow Belt South Bioregion - High</li> </ul>	6.1
<ul style="list-style-type: none"> <li>■ PCT 418 - White Cypress Pine - Silver-leaved Ironbark - Wilga shrub grass woodland of the Narrabri-Yetman region, Brigalow Belt South Bioregion - Medium</li> </ul>	6.8
<b>Threatened species</b>	
<ul style="list-style-type: none"> <li>■ <i>Digitaria porrecta</i> (Finger panic grass)</li> </ul>	-
<ul style="list-style-type: none"> <li>■ <i>Homopholis belsonii</i> (Belson's panic)</li> </ul>	-
<ul style="list-style-type: none"> <li>■ <i>Calyptorhynchus lathamii</i> (Glossy black-cockatoo)</li> </ul>	-
<b>Total</b>	<b>13.57</b>
<b>Borrow Pit 5</b>	
<b>Ecosystems</b>	
<ul style="list-style-type: none"> <li>■ PCT 192 - Silver-leaved Ironbark - Poplar Box +/- Ironwood shrub - grass woodland on rises in the north-western plains of NSW</li> </ul>	12.4
<b>Threatened species</b>	
<ul style="list-style-type: none"> <li>■ <i>Polygala linariifolia</i> (Native Milkwort)</li> </ul>	-
<ul style="list-style-type: none"> <li>■ <i>Calyptorhynchus lathamii</i> (Glossy black-cockatoo)</li> </ul>	-
<ul style="list-style-type: none"> <li>■ <i>Hoplocephalus bitorquatus</i> (Pale-headed snake)</li> </ul>	-
<b>Total</b>	<b>12.4</b>

Segment – Borrow Pits	Native vegetation impacted (ha)
<b>Borrow Pit 7</b>	
<b>Ecosystems</b>	
<ul style="list-style-type: none"> <li>PCT 56 - Poplar Box - Belah woodland on clay-loam soils on alluvial plains of north-central NSW - Northern Outwash Vegetation Zone</li> </ul>	0.13
<ul style="list-style-type: none"> <li>PCT 56 - Poplar Box - Belah woodland on clay-loam soils on alluvial plains of north-central NSW - Northern Basalts Scattered Trees</li> </ul>	
<b>Threatened species</b>	
<ul style="list-style-type: none"> <li><i>Calyptorhynchus lathami</i> (Glossy black-cockatoo)</li> </ul>	-
<b>Total</b>	<b>0.13</b>
<b>Borrow Pit 8</b>	
<b>Ecosystems</b>	
<ul style="list-style-type: none"> <li>PCT 56 - Poplar Box - Belah woodland on clay-loam soils on alluvial plains of north-central NSW</li> </ul>	21.1
<b>Threatened species</b>	
<ul style="list-style-type: none"> <li><i>Calyptorhynchus lathami</i> (Glossy black-cockatoo)</li> </ul>	-
<ul style="list-style-type: none"> <li><i>Tyto novaehollandiae</i> (Masked owl)</li> </ul>	-
<b>Total</b>	<b>21.1</b>
<b>Borrow Pit 9</b>	
<b>Ecosystems</b>	
<ul style="list-style-type: none"> <li>PCT 418 - White Cypress Pine - Silver-leaved Ironbark - Wilga shrub grass woodland of the Narrabri-Yetman region, Brigalow Belt South Bioregion</li> </ul>	7.9
<b>Threatened species</b>	
<ul style="list-style-type: none"> <li><i>Calyptorhynchus lathami</i> (Glossy black-cockatoo)</li> </ul>	-
<ul style="list-style-type: none"> <li><i>Tyto novaehollandiae</i> (Masked owl)</li> </ul>	-
<b>Total</b>	<b>7.9</b>
<b>Borrow Pit 13</b>	
<b>Ecosystems</b>	
<ul style="list-style-type: none"> <li>PCT 98 - Poplar Box - White Cypress Pine - Wilga - Ironwood shrubby woodland on red sandy-loam soils in the Darling Riverine Plains Bioregion and Brigalow</li> </ul>	0.57
<b>Total</b>	<b>0.57</b>
<b>Borrow Pit 25</b>	
<b>Ecosystems</b>	
<ul style="list-style-type: none"> <li>PCT 418 - White Cypress Pine - Silver-leaved Ironbark - Wilga shrub grass woodland of the Narrabri-Yetman region, Brigalow Belt South Bioregion</li> </ul>	3
<b>Threatened species</b>	
<ul style="list-style-type: none"> <li><i>Calyptorhynchus lathami</i> (Glossy black-cockatoo)</li> </ul>	-
<b>Total</b>	<b>3</b>

Note 1 - Scattered tree credits expressed separately to PCT 56 vegetation zone due to location within the Northern Basalts side of the IBRA sub-region boundary

## 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 noise<sup>2</sup>)

Parameter	Location or Land Use	Limit
<b>Afflux</b> i.e. increase in flood level resulting from implementation of CSSI.	Habitable floors and sensitive infrastructure <sup>3</sup>	10mm increase <sup>4</sup>
	Non-habitable floors	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 <sup>6</sup>	50mm on areas flooded under existing conditions. Otherwise, no increase. <sup>5</sup>
	Highways and sealed roads >80km/hr. <sup>6</sup>	No afflux where aquaplaning risk exists and remains unmitigated. Otherwise 50mm increase <sup>5</sup>
	Unsealed roads and sealed roads <80km/hr <sup>6</sup>	100mm increase <sup>5</sup>

<sup>2</sup> 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 E44**.

<sup>3</sup> 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.

<sup>4</sup> 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.

<sup>5</sup> Any variation must be negotiated with the roads authority in accordance with **Condition E55**

<sup>6</sup> Including where located within CSSI corridor.

Parameter	Location or Land Use	Limit	
<p><b>Velocity</b> i.e. Increase in flood velocity resulting from the implementation of the CSSI (Both Flow Distribution and the Scour/Erosion velocity QDLs apply)</p>			
	<u>Flow Distribution</u>	All areas	20% increase in velocity <sup>7</sup>
	<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	<p>An erosion threshold velocity (ETV) is to be determined through a site specific assessment(s) conducted by an experienced geotechnical or scour/erosion specialist.<sup>8</sup> An ETV of 0.5m/s is to be adopted in the absence of a site specific assessment(s).</p> <p>Where existing velocity exceeds ETV, velocity is limited to a 0.025m/s increase<sup>9</sup>.</p> <p>Where existing velocity is less than ETV, velocity is limited to the lesser of:</p> <ul style="list-style-type: none"> <li>• ETV</li> <li>• 20% increase or 0.5m/s whichever is greater</li> </ul>
<p><b>Flood Hazard</b> i.e. increase in velocity~depth product (<b>vd</b>) and/or flood hazard category resulting from implementation of CSSI. (Does not apply where <math>vd &lt; 0.1m^2/s</math>).</p>	Urban, commercial, industrial, highways <sup>6</sup> and sealed roadways <sup>6</sup>	10% increase in vd	
	Classified roads managed by TfNSW <sup>6</sup>	10% increase in vd where this does not result in an increase in hazard category. Otherwise, no increase. <sup>5</sup>	
	Elsewhere	20% increase in vd	
	Habitable floors <sup>3</sup>	Where existing above floor flooding is:	

<sup>7</sup> 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%.

<sup>8</sup> The methods used to calculate the erosion threshold velocity must be independently peer reviewed in accordance with **Conditions E47 to E50**. Shear stress assessments may be used as an alternative method from which to describe the erosion threshold in a specific environment (i.e. soil type, depth, velocity). An erosion threshold shear stress (**ETSS**) can be used as an alternative to the ETV to ensure the erosion threshold is not exceeded beyond the limits of this velocity QDL. (If the ETSS is used, compliance with the limiting increases in velocities specified within this QDL are also required).

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

Parameter	Location or Land Use	Limit
<p><b>Flood Duration</b> i.e. increase in duration of inundation resulting from implementation of CSSI.</p>		<ul style="list-style-type: none"> <li>• less than 1 hour in flood duration, the post-development flood duration shall not exceed 1 hour</li> <li>• greater than 1 hour in duration, up to 5% increased inundation duration</li> </ul> <p>Where existing below floor flooding is:</p> <ul style="list-style-type: none"> <li>• less than 1 hour in flood duration, the post-development flood duration shall not exceed 1 hour</li> <li>• greater than 1 hour in duration, up to 10% increased inundation duration</li> </ul>
	Classified roads managed by TfNSW <sup>6</sup>	<p>No increase in duration of flood inundation to sections of road not already inundated<sup>5</sup>.</p> <p>Otherwise 10% increase in inundation duration.</p>
	Highways and sealed roads >80km/hr <sup>6</sup>	10% increase in inundation duration.
	Elsewhere	<p>Where existing inundation is less than 1 hour in flood duration, the post-development flood duration shall not exceed 1 hour.</p> <p>Where existing inundation is greater than 1 hour in flood duration, up to 10% increase in duration of inundation</p> <p>No duration limits apply to newly flooded land no greater than 1000m<sup>2</sup> in area</p>

## 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 EHG on the application of ARR within NSW.
- 2) Flood modelling in all subcatchments, including those where the 1976 flood is larger than the 1% AEP event, 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 E52 to E56** to occur.
- 5) Simulation of not only watercourses but all overland flowpaths, including new overland flowpaths resulting from the construction of the CSSI.
- 6) 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.
- 7) 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 E52 to E56**. This is to include prediction of flood height changes to a resolution no coarser than 10mm.
- 8) 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.
- 9) 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*.

- 10) Where bridges are proposed for cross-drainage, appropriate freeboard is to be included having regard to the structural and hydraulic design of the bridge. The minimum freeboard to be used is 0.3m.