Cross River Rail project

Project-wide imposed conditions and recommendations

March 2022

COORDINATOR-GENERAL

Queensland Government

Department of State Development, Infrastructure, Local Government and Planning improves productivity and quality of life in Queensland by leading economic strategy, industry development, infrastructure and planning, for the benefit of all.

Copies of this publication are available on our website at **www.statedevelopment.qld.gov.au** and further copies are available upon request to:

Department of State Development, Infrastructure, Local Government and Planning
PO Box 15517 City East Qld 4002.
1 William Street Brisbane Qld 4000 (Australia)

Phone: 13 QGOV (13 7468)
Fax: 07 3220 6502
Email: **info@dsdilgp.qld.gov.au**
Web: **www.statedevelopment.qld.gov.au/crr**

Contents

Appendices

1. Introduction

The Cross River Rail project is a rail link from Dutton Park to Bowen Hills, including a 5.9 km tunnel under the Brisbane River and Central Business District. Construction of the project commenced on 19 September 2019.

On 20 December 2012, the Coordinator-General's evaluation report (CGER) on the environmental impact statement (EIS) was released which included Imposed Conditions and established the broader environmental management framework (EMF) for the project. Since then, 13 change applications have been evaluated by the Coordinator-General accounting for detailed design refinements to enhance constructability of the project.

This document provides the current imposed conditions and recommendations for the project which regulate project delivery.

2. About the project

2.1 The proponent

The proponent for the project is the Cross River Rail Delivery Authority (CRR Delivery Authority), an independent statutory body established under the *Cross River Rail Delivery Authority Act 2016* to facilitate and manage the delivery of the project. The CRR Delivery Authority commenced operation on 14 April 2017.

2.2 The project

The project is a 10.2 kilometre north-south rail line connecting Dutton Park to Bowen Hills with 5.9 kilometre of tunnel under the Brisbane River and Central Business District. The project also includes new underground stations at Boggo Road, Woolloongabba, Albert Street, and Roma Street, with upgrades to the existing Exhibition Railway Station and stations between Fairfield and Salisbury. Construction of the project commenced on 19 September 2019.

The CGER on the EIS was released on 20 December 2012. Since this time, the Coordinator-General has evaluated 13 change applications accounting for detailed design refinements to enhance constructability of the project.

Further information on the project and changes that have occurred since the project was originally approved in 2012 are detailed in:

- the CGER on the EIS, dated 20 December 2012
- the Coordinator-General's change report (CGCR) dated 8 June 2017
- the CGCR dated 30 August 2018
- the CGCR dated 13 March 2019
- the CGCR dated 26 June 2019

- the CGCR dated 4 October 2019
- the CGCR dated 7 May 2020
- the CGCR dated 16 July 2020
- the CGCR dated 19 November 2020 (as amended 21 December 2021).
- the CGCR dated 7 April 2021
- the CGCR dated 8 June 2021
- the CGCR dated 22 July 2021
- the CGCR dated January 2022
- the CGCR dated March 2022.

Collectively, these reports constitute the 'evaluated project'. These documents, the EIS and all subsequent change requests are available on the department's website at **www.statedevelopment.qld.gov.au/crr**.

2.2.1 Environmental management framework

Imposed conditions set by the Coordinator-General established an EMF for the project that the CRR Delivery Authority and their contractors must comply with. The EMF stipulates how potential environmental impacts during project construction, commissioning and operation are to be managed and is supported by a rigorous compliance and reporting regime which includes monitoring and auditing from independent entities.

Initially approved as part of the CGER on the EIS for the project in 2017, the EMF has been successfully implemented since September 2019, when the project commenced construction. An overview of the approved EMF is illustrated at Figure 2.1. The EMF comprises a number of elements, being:

- the Outline Environmental Management Plan (OEMP) which, in accordance with imposed conditions, establishes the overarching outcomes and performance criteria that must be achieved by the CRR Delivery Authority for each environmental element (imposed condition 2)
- the Construction Environmental Management Plans (CEMPs) (including sub-plans), which are progressively developed for all project works, and in some cases are required to be specifically developed for particular project works (imposed condition 4).

The EMF is supported by:

- a compliance and reporting regime, as set out in imposed conditions 5 and 6, and
- two appointed independent entities required by the imposed conditions that provide oversight of the project to increase rigour and transparency for the project. Both entities are required to be independent, appropriately skilled and experienced, and have been approved by the Coordinator-General to provide oversight for the implementation of the project's imposed conditions. Those entities are:
  - the Independent Environmental Monitor (imposed condition 7) and
  - the Independent Community Relations Monitor (imposed condition 8).

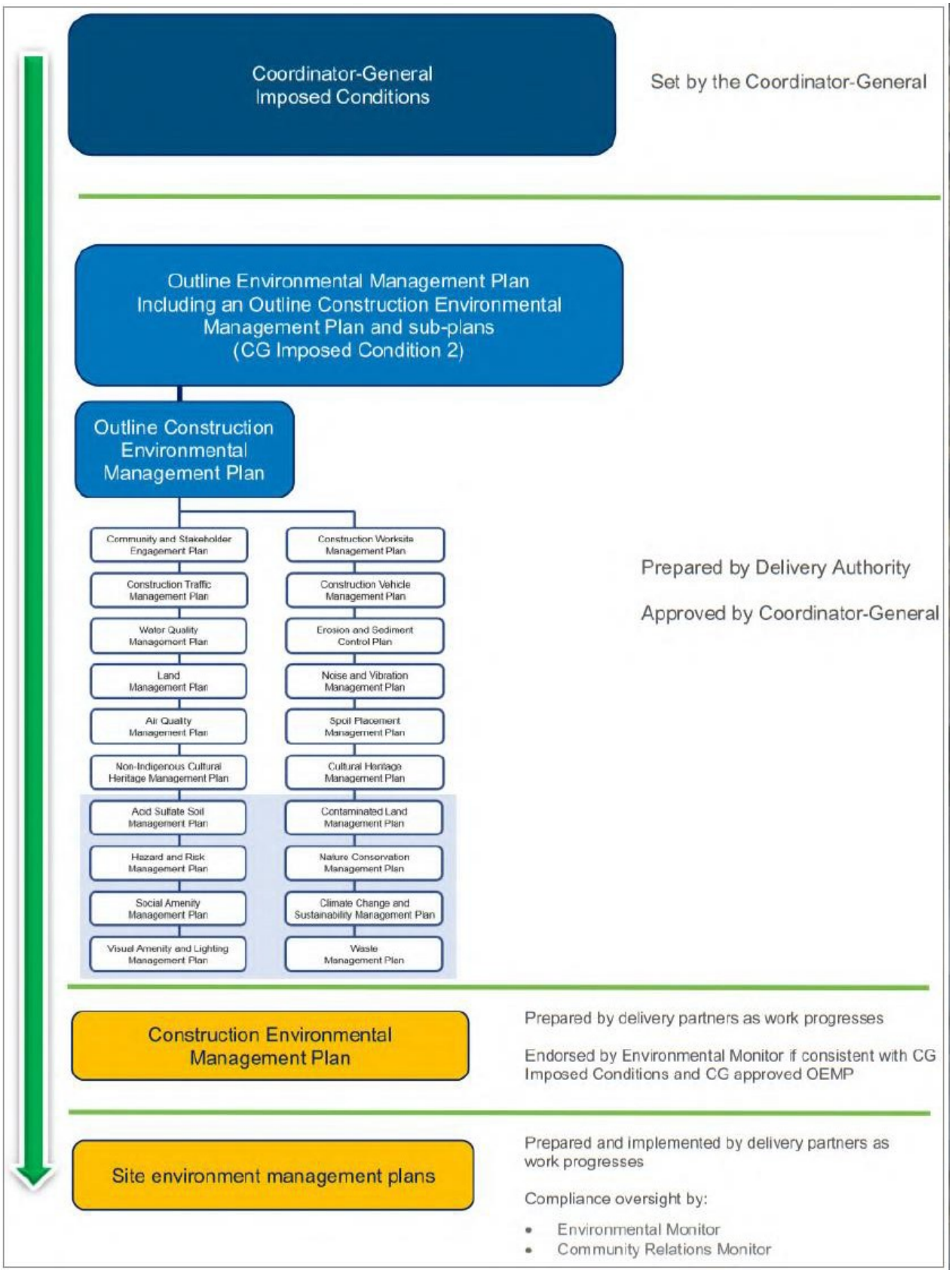

Figure 2.1 Cross River Rail Project approved EMF

CEMPs must be consistent with the OEMP and demonstrate how compliance with imposed conditions (construction) will be achieved prior to the commencement of relevant construction works. As outlined in the project's approved OEMP, each CEMP and sub-plan required for the project must include the following components:

- environmental outcome (for each environmental element; the aspect of project implementation to be managed as it affects environmental values e.g. air quality)
- performance criteria
- mitigation measures
- monitoring requirements
- reporting requirements
- corrective actions.

Flexibility is provided in the EMF to enable updates to the OEMP and CEMPs to address unforeseen work programs or refine mitigation measures to better manage project impacts. The EMF has been updated to reflect approved changes to the project since 2017, with the Coordinator-General approving amendments to the OEMP and the environmental monitor progressing amendments to CEMPs.

Appendices

Appendix 1. Project-wide imposed conditions

Part A. Imposed Conditions (General)

Condition 1. General conditions

(a) The project must be carried out generally in accordance with:

(i) the Cross River Rail request for Project Change dated April 2021, as amended by the Response to Submissions Report for the Cross River Rail Request for project Change dated June 2021;

(ii) the drawings provided at Volume 2, Cross River Rail Request for Project Change dated April 2021;

(iii) the Cross River Rail Request for Project Change dated March 2021;

(iv) the Cross River Rail Request for Project Change dated November 2020;

(v) the Cross River Rail Request for Project Change dated August 2020;

(vi) the Cross River Rail Request for Project Change dated May 2020;

(vii) amendments to the Project identified in the Cross River Rail Request for Project Change dated June 2018;

(viii) amendments to the Project identified in the Cross River Rail Request for Project Change dated November 2018;

(ix) the Cross River Rail Request for Project Change dated April 2019.

(b) The proponent must notify the Coordinator-General and all nominated entities in Schedule 2 in writing of the commencement of Project Works and the commencement of the commissioning and operational phases of each 'construction site' at least 20 business days prior to the relevant commencement date.

Condition 2. Outline Environmental Management Plan

(a) Two months prior to the commencement of Project Work submit a final Outline Environmental Management Plan to the Coordinator-General for approval.

(b) The Outline Environmental Management Plan must:

(i) Include the environment outcomes and performance criteria for each environmental element from the draft outline EMP except as amended by these conditions;

(ii) include possible mitigation measures, monitoring and reporting for each environmental element to achieve the environmental outcomes;

(iii) include an outline of:

(A) the Construction Environmental Management Plan

(B) the Commissioning Environmental Management Plan

(iv) be consistent with the Environmental Design Requirements in Schedule 1

(v) include the following sub-plans:

(A) Community and Stakeholder Engagement Plan

(B) Construction Worksite Management Plan

(C) Construction Traffic Management Plan (CTMP)

(D) Construction Vehicle Management Plan

(E) Water Quality Monitoring Plan

(F) Erosion and Sediment Control Plan

(G) Spoil Placement Management Plan

(H) Noise and Vibration Management Plan

(I) Air Quality Management Plan

(J) Settlement Management Plan

(K) Non-Indigenous Cultural Heritage Management Plan

(L) Indigenous Cultural Heritage Management Plan

(vi) be made available on the proponent's website once approved by the Coordinator-General and for the duration of the construction of the project and for a period of five years from commencement of operation.

(c) Any further amendments to the Coordinator-General approved Outline Environmental Management Plan will be issued to the Coordinator-General 20 business days prior to the commencement of Relevant Project Works.

Part B. Imposed Conditions (Design)

Condition 3. Design

(a) The project must achieve the Environmental Design Requirements in Schedule 1.

Part C. Imposed Conditions (Construction)

Condition 4. Construction Environmental Management Plan

(a) Prior to the commencement of Project Work, a Construction Environmental Management Plan for those works (Relevant Project Work) must be developed by the Proponent and endorsed by the Environmental Monitor as being consistent with the Outline EMP and these imposed conditions.

(b) The endorsed Construction Environmental Management Plan must be submitted to the Coordinator-General at least 20 business days prior to the commencement of Relevant Project Works.

(c) The Construction Environmental Management Plan must:

(i) describe the Relevant Project Work;

(ii) be based on predictive studies and assessments of construction impacts which have regard to the scale, intensity, location and duration of construction works, and location of Directly Affected Persons;

(iii) be generally consistent with the Outline EMP and incorporate its environmental outcomes and performance criteria;

(iv) incorporate and respond to the Imposed Conditions (Construction);

(v) demonstrate that the Imposed Conditions (Construction) will be complied with during Relevant Project Work;

(vi) incorporate the community engagement plan, including the complaints management process, in accordance with Condition 9;

(vii) where predictive studies indicate impacts beyond those provided for in the performance criteria, incorporate mitigation measures to achieve the environmental outcomes;

(viii) establish specific mitigation measures and processes for consultation with Directly Affected Persons for Project Works under Conditions 9(c), 11(c), and 11(e);

(ix) contain a program and procedures for ongoing monitoring to identify the effectiveness of mitigation measures in achieving the Imposed Conditions (Construction) and the environmental outcomes in (iii)

(x) include a process for regular review and if required updating of the Construction Environmental Management Plan, including a process to review and implement additional or different mitigation measures in response to monitoring results;

(xi) incorporate the EMP sub-plans required by the Imposed Conditions or as required by the approved Outline EMP.

(d) The Construction Environmental Management Plan must be implemented for the duration of Relevant Project Work.

(e) Relevant Project Work is authorised if it is undertaken in accordance with the Construction Environmental Management Plan.

(f) The Construction Environmental Management Plan must be publicly available on the project website for the duration of the construction phase.

(g) The Construction Environmental Management Plan may be updated.

(i) updates to the Construction Environmental Management Plan that include new or additional Relevant Project Work must be endorsed by the Environmental Monitor as being consistent with condition 2 before Relevant Project Work may proceed.

(h) Updates to the Construction Environmental Management Plan that are limited to new or different mitigation measures for Managed Work may be endorsed by the Environmental Monitor.

Condition 5. Compliance

(a) The proponent must notify the Environmental Monitor and the Coordinator-General in writing, within 48 hours after becoming aware of a Non-Compliance Event.

(b) The notification must include:

(i) a description of the Non-Compliance Event, including details of the location, date and time of the Non-Compliance Event;

(ii) the name and contact details of a designated contact person;

(iii) an outline of actions that have been or will be taken to respond to the Non-Compliance Event.

(c) Within 14 days following the notification of a Non-Compliance Event, written advice detailing the following information must be provided to the Environmental Monitor and the Coordinator-General:

(i) a description of the Non-Compliance Event, including details of the location, date and time of the Non-Compliance Event;

(ii) the name and contact details of a designated contact person;

(iii) the circumstances in which the Non-Compliance Event occurred;

(iv) details of any complaint in relation to the Non-Compliance Event;

(v) the cause of the Non-Compliance Event;

(vi) a description of the environmental effects of the Non-Compliance Event;

(vii) the results of any sampling or monitoring performed in relation to the Non-Compliance Event;

(viii) actions taken to mitigate the environmental effects of the Non-Compliance Event;

(ix) proposed actions to prevent a recurrence of the Non-Compliance Event, including timing and responsibility for implementation.

(d) The Non-Compliance Event report must be made available on the project website and remain available for the duration of the construction phase for the project.

Condition 6. Reporting

(a) The Proponent must prepare a Monthly Report that summarises compliance and monitoring results for the duration of construction works.

(b) The Monthly Report must include:

(i) monitoring data required by the imposed conditions or Construction Environmental Management Plan undertaken for the period and, where required, an interpretation of the results;

(ii) details of any Non-Compliance Event, including a description of the incident, resulting effects, corrective actions, revised construction practices to prevent a recurrence, responsibility and timing;

(iii) reporting of complaints, including the number of complaints, description of issues, responses and corrective actions.

(c) The Monthly Report must be provided to the Coordinator-General, the Environmental Monitor and all entities with jurisdiction over Imposed Conditions, and made available on the project website within six weeks of the end of the month to which the report relates, and continue to be available on the project website until commissioning is complete.

(d) The Proponent must provide annual reports to the Coordinator-General and the Environmental Monitor (Annual Report) no later than 31 July in any year during the construction phase about compliance with the imposed conditions.

(e) The Annual Report must include:

(i) a compliance evaluation table detailing the relevant imposed condition, whether compliance with the condition was achieved and how compliance was evaluated;

(ii) an evaluation of compliance in relation to the CEMP and its sub-plans;

(iii) a summary of any Non-Compliance Events during the reporting period;

(iv) a summary of any Non-Compliance Events during the previous reporting period, with details of site remediation activities, corrective actions taken or to be taken and revised practices implemented or to be implemented (as relevant).

Condition 7. Environmental Monitor

(a) The Proponent must engage an independent, appropriately skilled and experienced entity, approved by the Coordinator-General, as the Environmental Monitor for the duration of construction.

(b) The Proponent must ensure that the Environmental Monitor has reasonable site access and access to all information required to perform its function, including, without limitation:

(i) all approvals;

(ii) the Construction Environmental Management Plan;

(iii) results of all monitoring required under the Imposed Conditions (Construction) including through the Construction Environmental Management Plan;

(iv) all information relating to complaints, including access to the complaints database.

(c) The Environmental Monitor must:

(i) monitor compliance with the imposed conditions during the construction of the project;

(ii) monitor compliance with the Construction Environmental Management Plan and sub-plans;

(iii) maintain a register of mitigation measures agreed between the Proponent and Directly Affected Persons (Mitigation Register);

(iv) review the compliance reports required by Condition 5, and the monthly reports and annual reports required by Condition 6, and provide advice to the Coordinator-General and the Proponent on the contents and adequacy of those reports;

(v) review the results of monitoring, which may be verified by the Environmental Monitor including by independent monitoring;

(vi) provide advice to the Proponent about compliance with the Imposed Conditions for construction, including by providing the results of independent monitoring where required;

(vii) provide advice to the Proponent about issues raised in complaints and the response to complaints, including advice from the Community Relations Monitor;

(viii) endorse the Construction Environmental Management Plan as consistent with the Outline EMP and complying with the Imposed Conditions (Construction);

Condition 8. Community Relations Monitor

(a) The proponent must engage an independent, appropriately skilled and experienced entity, approved by the Coordinator-General, as the Community Relations Monitor for the duration of construction.

(b) The Community Relations Monitor must:

(i) review and provide advice to the Environmental Monitor on the community engagement plan required by Condition 9;

(ii) receive monthly reports from the proponent on complaints;

(iii) attend each meeting between the Proponent and a Directly Affected Person to consult on mitigation measures, including providing input on standard responses for similar impacts;

(iv) provide advice to the Environmental Monitor in relation to complaints, community engagement and consultation on mitigation measures;

(v) be available to members of the community in accordance with Condition 9(f)(vi).

Condition 9. Community engagement plan

(a) The Proponent must develop a community engagement plan as part of the Construction Environmental Management Plan consistent with the Outline EMP's Community and Stakeholder Engagement Plan.

(b) The community engagement plan must be given to the Community Relations Monitor for advice at least 10 business days prior to the Construction Environmental Management Plan being provided to the Environmental Monitor.

(c) The community engagement plan must provide for:

(i) Directly Affected Persons to be consulted prior to commencement of Project Works and ongoing thereafter about Project Works, predicted impacts and mitigation measures;

(ii) Directly Affected Persons to be consulted about possible mitigation measures;

(iii) local communities near Project Works to be informed about the nature of construction, including the timing, duration and predicted impacts of the works in advance of their commencement;

(iv) information to be provided to public transport, road users, pedestrians and cyclists about the predicted effects of Project Works on road, rail and pedestrian and cycle network operations, in advance of their commencement;

(v) specific community consultation plans for identified key stakeholders;

(vi) implementation of an Indigenous employment policy, providing for Indigenous training and employment opportunities;

(vii) a process for advance notification to local communities of Project Works, including the timing, duration, predicted impacts and mitigation measures, which is available on the project website and through other media.

(d) The community engagement plan must incorporate a complaints management system developed specifically for the Project, which is established prior to the commencement of Project Works.

(e) The complaints management system must deliver a prompt response to community concerns with relevant information, action where required, and reporting of incidents.

(f) As a minimum, the complaints management system must include the following elements:

(i) a procedure for receiving complaints on a 24 hour, seven days a week basis, during Project Works;

(ii) a mechanism for notifying the community of the complaints procedure and how it may be accessed;

(iii) a process for registering and handling complaints received, including a database for tracking of complaints and actions taken in response;

(iv) a procedure for verifying complaints through monitoring and detailed investigation, and escalating and resolving verified complaints;

(v) a procedure for complaints to be notified to the Community Relations Monitor, including information about the complaint and its resolution;

(vi) access by the community to the Community Relations Monitor; and

(vii) regular reporting via the monthly environmental report, to the community of complaints and corrective actions, maintaining appropriate confidentiality.

(g) All information regarding complaints, including the information collected in Condition 9(f)(iii) must be made available to the Community Relations Monitor.

Condition 10. Hours of work

(a) Surface works for the Project are authorised to be undertaken within the hours of work set out in Table 1.

(b) Project Works that are underground, or in a ventilated acoustic enclosure, may be undertaken at any time provided the environmental outcomes are achieved.

(c) Project Works may be undertaken outside the hours set out in Table 1 where carried out because of an emergency that:

(i) is endangering the life or health of a person; or

(ii) is endangering the structural safety of a building; or

(iii) is endangering the operation or safety of community infrastructure that is not a building; or

(iv) is required to prevent environmental harm.

(d) Extended Hours Works may only be undertaken subject to compliance with a specific Construction Environmental Management Plan sub-plan in accordance with Condition 4.

(e) Extended Hours Works may also be undertaken outside the hours set out in Table 1, where written confirmation has been obtained from the entity with jurisdiction for Condition 10 prior to commencement of the specific works and subject to compliance with an updated and endorsed site-specific Construction Environmental Management Plan sub-plan in accordance with Condition 4.

(f) Blasting must not occur on public holidays, and is only authorised to occur during the hours of 7:30am to 4:30pm Monday to Saturday, and not on Sundays or public holidays.

(g) Prior to blasting events, at least 48 hours' notice must be provided to persons who may be adversely affected.

Table 1. Construction hours

Worksite	Surface works - standard hours	Extended hours work (includes spoil haulage, materials/equipment delivery to support extended work hours activities and delivery of "in time" materials such as concrete, hazardous materials, large components and machinery)		Managed Work	Spoil haulage and materials/equipment delivery (excluding concrete deliveries)
Fairfield, Yeronga, Yeerongpilly, Rocklea and Salisbury stations	Monday to Saturday: 6:30am- 6:30pm	Project Works that require continuous construction support, such as continuous concrete pours, pipe-jacking or other forms of ground support necessary to avoid a failure or construction incident	Monday to Friday: 6:30pm - 10:00pm	24 hours, 7 days	Monday to Saturday: 6:30am - 6.30pm
		For approved rail possessions	Up to 24 hours per day, for the duration of the possession		
		Project Work in a road that cannot be undertaken reasonably nor practicably during standard hours due to potential disruptions to peak traffic flows	At any time permitted by the road authority, or otherwise, Monday to Friday 6:30pm - 10:00pm		
		Project Works involving the transport, assembly or decommissioning of oversized plant, equipment, components or structures	During the hours stated in the road access permit or otherwise Monday to Friday: 6:30pm - 10:00pm		

Worksite	Surface works - standard hours	Extended hours work (includes spoil haulage, materials/equipment delivery to support extended work hours activities and delivery of “in time” materials such as concrete, hazardous materials, large components and machinery)		Managed Work	Spoil haulage and materials/equipment delivery (excluding concrete deliveries)
Moorooka	Monday to Saturday: 6:30am-6:30pm	Project Works that require continuous construction support, such as continuous concrete pours, pipe-jacking or other forms of ground support necessary to avoid a failure or construction incident	Monday to Friday: 6:30pm - 10:00pm	24 hours, 7 days	Monday to Saturday: 6:30am-6:30pm
		For approved rail possessions	Up to 24 hours per day, for the duration of the possession		
		Project Work in a road that cannot be undertaken reasonably nor practicably during standard hours due to potential disruptions to peak traffic flows	At any time permitted by the road authority, or otherwise, Monday to Friday 6:30pm - 10:00pm		
		Project Works involving the transport, assembly or decommissioning of oversized plant, equipment, components or structures	During the hours stated in the road access permit or otherwise Monday to Friday: 6:30pm - 10:00pm		

Worksite	Surface works - standard hours	Extended hours work (includes spoil haulage, materials/equipment delivery to support extended work hours activities and delivery of “in time” materials such as concrete, hazardous materials, large components and machinery)		Managed Work	Spoil haulage and materials/equipment delivery (excluding concrete deliveries)
Clapham Yard	Monday to Saturday: 6:30am-6:30pm	Project Works that require continuous construction support, such as continuous concrete pours, pipe-jacking or other forms of ground support necessary to avoid a failure or construction incident	Monday to Friday: 6:30pm - 10:00pm	24 hours, 7 days	For spoil haulage from other worksites for reuse at Clapham Yard: 24 hours, 7 days until a 1% AEP flood immunity level is achieved for the rollingstock stabling facilities at the Clapham Yard site (approx. 240,000m^3) For other spoil haulage and materials/equipment delivery: Monday to Saturday: 6:30am - 6:30pm
		For any approved rail possessions for the Cross River Rail project	Up to 24 hours per day, for the duration of the possession		
		Project Work in a road that cannot be undertaken reasonably nor practicably during standard hours due to potential disruptions to peak traffic flows	At any time permitted by the road authority, or otherwise, Monday to Friday 6:30pm - 10:00pm		
		Project Works involving the transport, assembly or decommissioning of oversized plant, equipment, components or structures	During the hours stated in the road access permit or otherwise Monday to Friday: 6:30pm - 10:00pm		

Worksite	Surface works - standard hours	Extended hours work (includes spoil haulage, materials/equipment delivery to support extended work hours activities and delivery of “in time” materials such as concrete, hazardous materials, large components and machinery)		Managed Work	Spoil haulage and materials/equipment delivery (excluding concrete deliveries)
Southern portal	Monday to Saturday: 6:30am - 6:30pm	Project Works that require continuous construction support, such as continuous concrete pours, pipe-jacking or other forms of ground support necessary to avoid a failure or construction incident	Monday to Friday: 6:30pm - 10:00pm	24 hours, 7 days	24 hours, 7 days
		For approved rail possessions	Up to 24 hours per day, for the duration of the possession		
		Project works in a road or busway that cannot be undertaken reasonably nor practicably during standard hours due to potential disruptions to peak traffic flows or bus operations	At any time permitted by the road or busway authority, or otherwise, Monday to Friday 6:30pm - 10:00pm		
		Project Works involving the transport, assembly or decommissioning of oversized plant, equipment, components or structures	During the hours stated in the road access permit or otherwise Monday to Friday: 6:30pm - 10:00pm		

Worksite	Surface works - standard hours	Extended hours work (includes spoil haulage, materials/equipment delivery to support extended work hours activities and delivery of “in time” materials such as concrete, hazardous materials, large components and machinery)		Managed Work	Spoil haulage and materials/equipment delivery (excluding concrete deliveries)
Boggo Road Railway station	Monday to Saturday: 6:30am-6:30pm	Project Works that require continuous construction support, such as continuous concrete pours, pipe-jacking or other forms of ground support necessary to avoid a failure or construction incident	Monday to Friday: 6:30pm - 10:00pm	24 hours, 7 days	Monday to Friday: 6:30am – 7:30am, 9:00am - 2:30pm, 4:30pm - 6:30pm Saturday: 6:30am - 6:30pm Additional hours during gazetted school holidays: Monday to Friday: 7:30am - 9:00am 2:30pm - 4:30pm
		For approved rail possessions	Up to 24 hours per day, for the duration of the possession		
		Project Works in a road or busway that cannot be undertaken reasonably nor practicably during standard hours due to potential disruptions to peak traffic flows or bus operations	At any time permitted by the road or busway authority, or otherwise, Monday to Friday 6:30pm - 10:00pm		
		Project Works involving the transport, assembly or decommissioning of oversized plant, equipment, components or structures	During the hours stated in the road access permit or otherwise Monday to Friday: 6:30pm - 10:00pm		

Worksite	Surface works - standard hours	Extended hours work (includes spoil haulage, materials/equipment delivery to support extended work hours activities and delivery of “in time” materials such as concrete, hazardous materials, large components and machinery)		Managed Work	Spoil haulage and materials/equipment delivery (excluding concrete deliveries)
Dutton Park Railway station	Monday to Saturday: 6:30am-6:30pm	Project Works that require continuous construction support, such as continuous concrete pours, pipe-jacking or other forms of ground support necessary to avoid a failure or construction incident	Monday to Friday: 6:30pm - 10:00pm	n/a	24 hours, 7 days, except for: Monday to Friday: 7:00am - 9:00am, 4:30pm - 6:30pm
		For approved rail possessions	Up to 24 hours per day, for the duration of the possession		
		Project Works in a road that cannot be undertaken reasonably nor practicably during standard hours due to potential disruptions to peak traffic flows	At any time permitted by the road authority, or otherwise, Monday to Friday 6:30pm - 10:00pm		
		Project Works involving the transport, assembly or decommissioning of oversized plant, equipment, components or structures	During the hours stated in the road access permit or otherwise Monday to Friday: 6:30pm - 10:00pm		

Worksite	Surface works - standard hours	Extended hours work (includes spoil haulage, materials/equipment delivery to support extended work hours activities and delivery of “in time” materials such as concrete, hazardous materials, large components and machinery)		Managed Work	Spoil haulage and materials/equipment delivery (excluding concrete deliveries)
Woolloongabba Railway station	Monday to Saturday: 6:30am-6:30pm	Project Works that require continuous construction support, such as continuous concrete pours, pipe-jacking or other forms of ground support necessary to avoid a failure or construction incident	Monday to Friday: 6:30pm - 10:00pm	24 hours, 7 days	24 hours, 7 days, except for: Monday to Friday: 7:00am - 9:00am, 4:30pm - 6:30pm
		Project Works in a road or busway that cannot be undertaken reasonably nor practicably during standard hours due to potential disruptions to peak traffic flows or bus operations	At any time permitted by the road or busway authority, or otherwise, Monday to Friday 6:30pm - 10:00pm		
		Project Works involving the transport, assembly or decommissioning of oversized plant, equipment, components or structures	During the hours stated in the road access permit or otherwise Monday to Friday: 6:30pm - 10:00pm		

Worksite	Surface works - standard hours	Extended hours work (includes spoil haulage, materials/equipment delivery to support extended work hours activities and delivery of “in time” materials such as concrete, hazardous materials, large components and machinery)		Managed Work	Spoil haulage and materials/equipment delivery (excluding concrete deliveries)
Albert Street Railway station	Monday to Saturday: 6:30am-6:30pm	Project Works that require continuous construction support, such as continuous concrete pours, pipe-jacking or other forms of ground support necessary to avoid a failure or construction incident	Monday to Friday: 6:30pm - 10:00pm	24 hours, 7 days	Monday to Friday: 6.30am - 10:00pm Saturday: 6:30am - 6:30pm
		Project Works in a road or busway that cannot be undertaken reasonably nor practicably during standard hours due to potential disruptions to peak traffic flows or bus operations	At any time permitted by the road or busway authority, or otherwise, Monday to Friday 6:30pm - 10:00pm		
		Project Works involving the transport, assembly or decommissioning of oversized plant, equipment, components or structures	During the hours stated in the road access permit or otherwise Monday to Friday: 6:30pm - 10:00pm		

Worksite	Surface works - standard hours	Extended hours work (includes spoil haulage, materials/equipment delivery to support extended work hours activities and delivery of “in time” materials such as concrete, hazardous materials, large components and machinery)		Managed Work	Spoil haulage and materials/equipment delivery (excluding concrete deliveries)
Roma Street Railway station	Monday to Saturday: 6:30am-6:30pm	Project Works that require continuous construction support, such as continuous concrete pours, pipe-jacking or other forms of ground support necessary to avoid a failure or construction incident	Monday to Friday: 6:30pm - 10:00pm	24 hours, 7 days	Monday to Friday: 6:30am – 7:30am, 9:00am – 4:30pm 6:30pm - 10:00pm Saturday: 6:30am - 6:30pm
		For approved rail possessions	Up to 24 hours per day, for the duration of the possession		
		Project Works in a road or busway that cannot be undertaken reasonably nor practicably during standard hours due to potential disruptions to peak traffic flows or bus operations	At any time permitted by the road or busway authority, or otherwise, Monday to Friday 6:30pm - 10:00pm		
		Project Works involving the transport, assembly or decommissioning of oversized plant, equipment, components or structures	During the hours stated in the road access permit or otherwise Monday to Friday: 6:30pm - 10:00pm		

Worksite	Surface works - standard hours	Extended hours work (includes spoil haulage, materials/equipment delivery to support extended work hours activities and delivery of “in time” materials such as concrete, hazardous materials, large components and machinery)		Managed Work	Spoil haulage and materials/equipment delivery (excluding concrete deliveries)
Northern portal	Monday to Saturday: 6:30am-6:30pm	Project Works that require continuous construction support, such as continuous concrete pours, pipe-jacking or other forms of ground support necessary to avoid a failure or construction incident	Monday to Friday: 6:30pm - 10:00pm	24 hours, 7 days	Monday to Friday: 6.30am - 10:00pm Saturday: 6:30am - 6:30pm
		For approved rail possessions	Up to 24 hours per day, for the duration of the possession		
		Project Works in a road or busway that cannot be undertaken reasonably nor practicably during standard hours due to potential disruptions to peak traffic flows or bus operations	At any time permitted by the road or busway authority, or otherwise, Monday to Friday 6:30pm - 10:00pm		
		Project Works involving the transport, assembly or decommissioning of oversized plant, equipment, components or structures	During the hours stated in the road access permit or otherwise Monday to Friday: 6:30pm - 10:00pm		

Worksite	Surface works - standard hours	Extended hours work (includes spoil haulage, materials/equipment delivery to support extended work hours activities and delivery of “in time” materials such as concrete, hazardous materials, large components and machinery)		Managed Work	Spoil haulage and materials/equipment delivery (excluding concrete deliveries)
Exhibition Railway station	Monday to Saturday: 6:30am-6:30pm	Project Works that require continuous construction support, such as continuous concrete pours, pipe-jacking or other forms of ground support necessary to avoid a failure or construction incident	Monday to Friday: 6:30pm - 10:00pm	24 hours, 7 days	Monday to Saturday: 6:30am - 6:30pm
		For approved rail possessions	Up to 24 hours per day, for the duration of the possession		
		Project Works in a road or busway that cannot be undertaken reasonably nor practicably during standard hours due to potential disruptions to peak traffic flows or bus operations	At any time permitted by the road or busway authority, or otherwise, Monday to Friday 6:30pm - 10:00pm		
		Project Works involving the transport, assembly or decommissioning of oversized plant, equipment, components or structures	During the hours stated in the road access permit or otherwise Monday to Friday: 6:30pm - 10:00pm		

Worksite	Surface works - standard hours	Extended hours work (includes spoil haulage, materials/equipment delivery to support extended work hours activities and delivery of "in time" materials such as concrete, hazardous materials, large components and machinery)		Managed Work	Spoil haulage and materials/equipment delivery (excluding concrete deliveries)
Mayne Railway Yard	Monday to Saturday: 6:30am-6:30pm	Project Works that require continuous construction support, such as continuous concrete pours, pipe-jacking or other forms of ground support necessary to avoid a failure or construction incident	Monday to Friday: 6:30pm - 10:00pm	24 hours, 7 days	24 hours, 7 days
		For approved rail possessions	Up to 24 hours per day, for the duration of the possession		
		Project Works in a road that cannot be undertaken reasonably nor practicably during standard hours due to potential disruptions to peak traffic flows	At any time permitted by the road authority, or otherwise, Monday to Friday 6:30pm - 10:00pm		
		Project Works involving the transport, assembly or decommissioning of oversized plant, equipment, components or structures	During the hours stated in the road access permit or otherwise Monday to Friday: 6:30pm - 10:00pm		

Condition 10A. Sunday haulage for Roma Street Railway station worksite

(a) In addition to the hours of work set out in Condition 10 (Hours of work), spoil haulage may be undertaken within the hours set out in Table 1A below (the Roma Street Sunday spoil haulage), provided that:

(i) the Construction Environmental Management Plan (CEMP) is updated (if required) to manage the Roma Street Sunday Spoil Haulage and has been prepared in accordance with Condition 4 and endorsed by the Environmental Monitor prior to the commencement of the Roma Street Sunday Spoil Haulage; and

(ii) the endorsed CEMP includes a Construction Traffic Management Sub-Plan incorporating Roma Street Sunday Spoil Haulage to manage interactions with major events in the CBD and provides for construction traffic management arrangements developed in consultation with Brisbane City Council; and

(iii) local communities near the Roma Street Worksite must be notified about the initial commencement of haulage at least two (2) business days prior to Roma Street Sunday Spoil Haulage commencing including details of timeframes, potential impacts, mitigation measures, project contact information through letterbox drop, project website updates and social media updates.

(b) Condition 10A ceases to have effect upon either:

(i) the date that the tunnel boring machines reach the Northern Portal worksite or

(ii) a date stated by the Coordinator-General in writing to the proponent.

Table 1A. Temporary construction hours – spoil haulage for Roma Street Railway station worksite

Worksite	Spoil haulage
Roma Street Railway station	Sunday 9:00am – 6:30pm

Condition 10B. Sunday haulage for Albert Street Railway station worksite

(a) In addition to the hours of work set out in Condition 10 (Hours of work), spoil haulage may be undertaken within the hours set out in Table 1B below (the Albert Street authorised works Sunday Spoil Haulage), provided that:

(i) the Proponent has requested that the Coordinator-General issue a notice allowing the Albert Street Sunday Spoil Haulage authorised works to proceed, with that request including the following information:

a) proposed commencement and completion date of Albert Street Sunday Spoil Haulage authorised works;

b) details of any complaints received in relation to Roma Street Sunday Spoil Haulage authorised works;

c) advice received from the environmental monitor regarding the effectiveness of implementing the endorsed CEMP for the Roma Street Sunday Spoil Haulage works, inclusive of advice from the community relations monitor in relation to complaints received as a result of the Roma Street Sunday Spoil Haulage authorised works; and

(ii) the Coordinator-General has issued a notice to the Proponent that allows the Albert Street Sunday Spoil Haulage authorised works to proceed; and

(iii) a specific the Construction Environmental Management Plan (CEMP) is updated (if required) for to manage the Albert Street Sunday Spoil Haulage and authorised works

has been prepared in accordance with Condition 4 and endorsed by the Environmental Monitor prior to the commencement of the Albert Street Sunday Spoil Haulage authorised works; and

(iv) the endorsed CEMP includes a Construction Traffic Management Sub-Plan for the Albert Street Sunday Spoil Haulage authorised works to manage interaction with major events in the CBD and that specifically provides for construction traffic management arrangements developed in consultation with Brisbane City Council, in particular for major events; and

(v) local communities near the Albert Street Sunday Spoil Haulage Worksite authorised works must be notified about the initial commencement of haulage at least two (2) business days prior to works Albert Street Sunday Spoil Haulage commencing including notification details of timeframes, potential impacts, mitigation measures, project contact information through letterbox drop, project website updates and social media updates;

(b) Condition 10B ceases to have effect on the date stated by the Coordinator-General in writing to the Proponent.

Table 1B. Temporary construction hours – spoil haulage for Albert Street Railway station worksite

Worksite	Spoil haulage
Albert Street Railway station	Sunday 9:00am – 6:30pm

Condition 10C. Relaxation of heavy vehicle restrictions when traffic volumes are low

(a) In addition to the hours of work set out in Condition 10 (Hours of Work), spoil haulage and materials/equipment delivery may be undertaken within the hours set out in Table 1C, provided that:

(i) the Construction Environmental Management Plan (CEMP) is updated (if required) to manage the spoil haulage and materials/equipment delivery within the hours set out in Table 1C; the CEMP has been prepared in accordance with Condition 4; and, the CEMP has been endorsed by the Environmental Monitor prior to commencing the spoil haulage and materials/equipment delivery within the hours set out in Table 1C;

(ii) the endorsed CEMP includes an updated (if required) Construction Traffic Management Sub-Plan which specifically provides for construction traffic management arrangements for operating schools in proximity to each worksite, developed in consultation with each operating school including, but not limited to the following

(1) Boggo Road Railway Station – the Dutton Park State Primary School;

(2) Woolloongabba Railway Station – St Joseph's Primary School and the East Brisbane State School;

(3) Roma Street Railway Station – Brisbane Grammar School and Brisbane Girls Grammar School.

(b) local communities near the worksites listed in Table 1C must be notified about the spoil haulage and materials/equipment delivery activities as soon as practicable after Condition 10C(c)(i) is satisfied, including notification of timeframes, potential impacts, mitigation measures, project contact information through direct electronic mail distribution, project website updates and social media updates.

(c) the spoil haulage and materials/equipment delivery provided in Table 1C occur only during the period in which:

(i) Brisbane City Council's notice of relaxed road use restrictions for heavy construction vehicles greater than 12.5m in length through the Brisbane City CBD remains in effect; or

(ii) any shorter period stated by the Coordinator-General.

Table 1C Temporary construction hours – spoil haulage and materials/equipment delivery

Worksite	Spoil haulage and materials/equipment delivery
Boggo Road Railway station	Monday to Friday: 7:30am – 9:00am 2:30pm – 4:30pm
Dutton Park Railway station	Monday to Friday: 7:00am – 9:00am 4:30pm – 6:30pm
Woolloongabba Railway station	Monday to Friday: 7:00am – 9:00am 4:30pm – 6:30pm
Roma Street Railway station	Monday to Friday: 7:30am – 9:00am 4:30pm – 6:30pm

Condition 11. Construction Noise and Vibration

(a) Project Works must aim to achieve the project noise goals for human health and well-being presented in Table 2 at a Sensitive Place.

Table 2. Noise goals (internal) for Project Works

	Monday - Saturday 6:30am – 6:30pm	Monday -Friday 6:30pm – 10:00pm (Gabba, CBD only)	Monday - Saturday 6:30pm – 6:30am Sundays, Public Holidays	For blasting Monday - Saturday 7:30 am – 4:30pm only
Continuous ($LA_{eq\ adj}$)(1hr)	AS 2107 Maximum design level	40 dBA $LA_{eq\ adj}$ (1hr)	35 dBA $LA_{eq\ adj}$ (1hr)	
Intermittent ($LA_{10\ adj}$)(15min)	AS 2107 Maximum design level + 10 dBA	50 dBA $LA_{10,\ adj}$	42 dBA $LA_{10\ adj}$	130 dB Linear Peak

Notes:

1. All goals are internal noise levels for human health and well-being outcomes.
2. Where internal noise levels are unable to be measured or monitored, the typical noise reductions presented in the relevant State guideline, such as the Guideline Planning for Noise Control, Ecoaccess, DEHP, January 2017 (currently under review).
3. Adjustments (adj) will be applied as outlined in the Department of Environment and Science Noise Measurement Manual Version 4 August 2013.

(b) During construction monitor and report on noise and vibration in accordance with the Noise and Vibration Management Plan, a sub-plan of the Construction Environmental Management Plan.

(c) Project Works predicted to or monitored as generating noise levels more than 20dBA ($LA_{10\ adj\ (15\ min)}$) above the relevant goal in Table 2. are authorised to occur in a locality only:

(i) when advance notification and consultation has been undertaken with Directly Affected Persons or potentially Directly Affected Persons about the particular predicted impacts and the approach to mitigation of such impacts;

(ii) where mitigation measures addressing the particular predicted or measured impacts have been developed on a 'case by case' basis in consultation with Directly Affected Persons;

(iii) where the mitigation measures are incorporated in a mitigation register and implemented prior to undertaking the Project Works;

(iv) between the hours 7:00am to 6:00pm Monday to Friday, with a respite period between 12:00noon and 2:00pm each day with the respite only applying where generating noise levels more than 20dBA $LA_{10\ adj}$ (15 min) at a Sensitive Place that is occupied;

(d) Condition 11(c)(iv) does not apply to Extended Hours Works.

(e) Project Works must aim to achieve the construction vibration goals in Table 3.

Table 3. The construction vibration goals

Receiver type	Cosmetic Damage			Human comfort (mm/s PPV)		Sensitive building contents (mms/PPV)
	Continuous vibration (mm/s PPV)	**Transient vibration (mm/s PPV)**	**Blasting vibration (mm/s PPV)**	**Day**	**Night**	
Residential	According to BS7385 reduced by 50%[4]	According to BS7385	50[1]	According to AS2670	0.5[2]	
Commercial	According to BS7385 reduced by 50%[4]	According to BS7385	50	According to AS2670	-	0.5[3]
Heritage structures	2	-	10	-	-	

Notes:

1. All residential receivers in the vicinity of the Project blasting sites are regarded as reinforced or framed structures (i.e. BS7385)
2. Residential sleep disturbance
3. Equipment specific vibration criteria are required for highly sensitive equipment (i.e. electron microscopes, MRI systems or similar), as part of future site-specific detailed investigations
4. If resonance is present, or if investigation to detect resonance were not able to be undertaken due to a lack of access

(f) Where vibration protection criteria are available for sensitive building contents, predictive modelling must take into account the manufacturer's specifications for tolerance to vibration. To the extent reasonable and practicable, those specifications apply in lieu of the construction vibration goals in Table 3. Where predictive modelling indicates the specified criteria would not be achieved by the Project Works, such works may proceed only in accordance with specific mitigation measures agreed with the potentially Directly Affected Persons.

(g) Project Works predicted to or monitored as generating vibration levels more than 2mm/s for continuous vibration and 10mm/s for transient vibration may occur only:

(i) between the hours 7:00am to 6:00pm Monday to Friday, with a respite period between 12:00noon and 2:00pm each day with the respite only applying where generating vibration levels more than those levels nominated in Table 3 (Human Comfort) at a Sensitive Place that is occupied; or

(ii) in accordance with the mitigation measures developed in consultation with and agreed by Directly Affected Persons that are incorporated in the Mitigation Register.

Condition 12. Property Damage

(a) Prior to the commencement of Project Works, predictive modelling must be undertaken of potential ground movement that may be caused by the Project Works. Such predictive

modelling must ascertain the potential for damage due to ground movement being caused to property by Project Works.

(b) Where predictive modelling indicates the Project Works would lead to impacts above the vibration goals for cosmetic damage in Table 3. the proponent must prepare and submit a property damage sub-plan, prior to the commencement of such works, as part of the Construction Environmental Management Plan. The property damage sub-plan must set out the procedure for:

(i) advance communication with potentially Directly Affected Persons;

(ii) procedures for building condition surveys both in advance of and following Project Works, including provision for consultation with property owners and occupants;

(iii) monitoring to be undertaken for potential impacts to property; and

(iv) mitigation measures.

(c) Where a post-construction building condition survey identifies that property damage has occurred as a consequence of the Project Works, such damage must be repaired as soon as practicable by the Proponent at no cost to the property owners. Such repairs must be undertaken in consultation with the property owners and occupants and must return the premises at least to the condition existing prior to commencement of Project Works. The Proponent must agree the timing, method and extent of works required with the affected landowner and must gain permission to undertake such reparation works prior to their commencement.

Condition 13. Air quality

(a) Project Works must aim to achieve the goals in Table 4.

Table 4. Air quality criteria and goals

Criterion	Air quality indicator	Goal	Averaging period
Human Health	Total Suspended Particulates (TSP)	90 µg/m^3	1 year
	Particulate matter (PM_{10})	50 µg/m^3	24 hours
		25 µg/m^3	1 year
Nuisance	TSP	80 µg/m^3	24 hours
	Deposited dust	120 mg/m^2/day	30 days

Notes:

1. When monitored in accordance with the most recent version of AS3580.9.6 Determination of suspended particulate matter – PM10 high volume sampler with size-selective inlet – Gravimetric method. OR AS/NZS 3580.9.9: 2017 Methods for sampling and analysis of ambient air. Determination of suspended particulate matter - PM10 low volume sampler - Gravimetric method.
2. When monitored in accordance with the most recent version of AS/NZS 3580.9.3:2003 Determination of suspended particulate matter - Total suspended particulate matter (TSP) - High volume sampler gravimetric method or (TSP) low volume sampler – Gravimetric method.
3. When monitored in accordance with the most recent version of AS3580.10.1 Methods for sampling and analysis of ambient air – Determination of particulate matter – Deposited matter – Gravimetric method

(b) During construction monitor and report on air quality in accordance with the Air Quality Management Plan, a sub-plan of the Construction Environmental Management Plan.

Condition 14. Traffic and transport

(a) Project construction traffic must be managed to avoid or minimise adverse impacts on road safety and traffic flow, public transport, freight rail movements, pedestrian and cyclist safety, and property access.

(b) During construction workforce car parking must be provided and managed to avoid workforce parking on local streets.

(c) Access for emergency services to project worksites and adjoining properties must be maintained throughout the construction phase.

(d) Practicable access is maintained to adjacent properties throughout the construction phase.

(e) Heavy construction vehicles use only designated routes for spoil haulage and deliveries of major plant, equipment and materials, in accordance with the Construction Environmental Management Plan. The designated haulage routes for each worksite must follow major or arterial roads to the extent practicable and be developed in consultation with the Department of Transport and Main Roads and the Brisbane City Council in preparation of the Construction Environmental Management Plan.

(f) The Construction Traffic Management Plan must be supported by a road safety assessment for the spoil haulage route.

(g) Construction traffic must operate within the requirements of a construction traffic management sub-plan (Construction Traffic Management Plan) incorporated within the Construction Environmental Management Plan.

(h) The Construction Traffic Management Plan must include:

  (i) the proposed access to worksites, with local or minor roads only used where unavoidable to access a project worksite;

  (ii) a process for advance notice to Directly Affected Persons and local communities within the vicinity of the spoil haulage routes and worksite accesses;

  (iii) local traffic management measures developed in consultation with Brisbane City Council for key intersections:

    (A) in Bowen Hills including Bowen Bridge Road, College Road and O'Connell Terrace;

    (B) in the CBD including Albert Street, Charlotte Street, Elizabeth Street and Roma Street;

    (C) at Woolloongabba including Leopard Street, Stanley Street, Vulture Street and Main Street;

    (D) at Dutton Park including Annerley Road, Peter Doherty Street, Joe Baker Street and Boggo Road, as well as Kent Street, Cornwall Street and Ipswich Road;

    (E) in the area of the Fairfield to Salisbury stations and Clapham Yard works.

  (iv) specific traffic management measures developed in consultation with other key stakeholders, including:

    (A) the department administering the *Economic Development Act 2012* with regards traffic management in the Queens Wharf Brisbane priority development area;

    (B) Queensland Rail about maintaining access to railway stations; and

    (C) the department administering the *Transport Infrastructure Act 1994* and the Brisbane City Council about maintaining operations for bus services along streets affected by the Project Works.

(i) Project Works must be designed, planned and implemented to maintain acceptable footpath and cycle paths in areas adjacent to project worksites in terms of capacity, legibility and pavement condition. The proponent must consult with the Brisbane City Council and Queensland Rail about changes in pedestrian and cycle paths required to facilitate Project Works.

Condition 15. Water quality

(a) Discharge of groundwater from Project Works must comply with:

(i) the Brisbane River Estuary environmental values and water quality objectives (Basin no. 143 - mid-estuary) in the Environmental Protection (Water) Policy 2009;

(ii) in the vicinity of Moolabin Creek, Yeerongpilly - Oxley Creek - Lowland freshwater environmental values and water quality objectives (Basin no. 143 (part) - including all tributaries of the creek) in the Environmental Protection (Water) Policy 2009.

Note that surface water runoff and dewatering activities from sediment basins and surface excavations associated with surface construction works is managed in accordance with Imposed Condition 18.

(b) During construction monitor and report on water quality in accordance with the Water Quality Management Plan, a sub-plan of the Construction Environmental Management Plan.

Condition 16. Water resources

(a) Prior to the commencement of Project Works involving excavation, the Proponent must undertake predictive modelling of the potential for groundwater drawdown. The predictive modelling must be based on validated monitoring data and must address the likely extent of any drawdown over time, up to the time when such movement reaches equilibrium.

(b) Project Works must be designed, planned and implemented to avoid where practicable and otherwise minimise the inflow of groundwater to the Project Works, including excavations, the underground stations and tunnels, having regard for the predictive modelling.

(c) The Proponent must monitor the inflow of groundwater to the Project Works and compare monitoring data with the predictive modelling. If the rate of groundwater inflow rate exceeds 1L/sec in any worksite, the proponent must revise work methods and devise and implement mitigation measures as soon as practicable.

Condition 17. Surface water

(a) For underground tunnels and stations - Project Works, and worksites, must be designed and implemented to avoid inundation from stormwater due to a 2 year (6hr) ARI rainfall event and flood waters due to a 5 year ARI rainfall event.

(b) A Flood Management Plan that applies to all worksites affected by tributary or creek flooding (in a 5 year ARI flood event and stormwater during a 2 year ARI rainfall event) must be endorsed by the independent Environmental Monitor prior to the commencement of Relevant Project Work. A Flood Management Plan is not relevant to flooding of the Brisbane River (main channel).

(c) The Flood Management Plan must include, as a minimum:

(i) general description of the Relevant Project Works

(ii) flood assessment

(iii) specific flood management measures, including:

(A) appropriate storage of materials and equipment

(B) early warning indicators

(C) risk management for predicted rainfall events

(D) risk management for predicted tidal flooding events for works in the tidal zone

(E) risk management for unpredicted flood events

(iv) Tidal works management for works in the tidal zone, including:

(A) barge and marine equipment details

(B) barge mooring plan

(C) vessel traffic management plan

(D) marking of navigational hazards.

(d) Project works must be designed and implemented to avoid afflux or cause the redirection of uncontrolled surface water flows, including stormwater flows, outside of worksites.

Condition 18. Erosion and sediment control

(a) An erosion and sediment control sub-plan that is consistent with the Guidelines for Best Practice Erosion and Sediment Control (International Erosion Control Association, 2008) and the Department of Transport and Main Roads' Technical Standard MRTS52 – Erosion and Sediment Control must be submitted as part of the Construction Environmental Management Plan.

Condition 19. Acid sulphate soils

(a) Acid sulphate soils must be managed in accordance with the methods and requirements of the latest edition of the *Queensland Acid Sulphate Soil Technical Manual*.

Condition 20. Landscape and open space

(a) Project Works are designed and implemented to minimise impacts on landscape and open space values.

(b) Project works and worksites in Victoria Park must be designed, planned and implemented to avoid, or minimise the loss of trees and ornamental plantings, and must minimise the area of the park directly impacted during such works.

(c) Worksites in Victoria Park must be enclosed with a visually solid screen and any night lighting including security lighting must be situated to minimise the spill of light beyond the worksite enclosures.

(d) Existing pathways and recreational facilities in Victoria Park must be relocated within the park for the duration of the works, in consultation with the Brisbane City Council. Upon completion of the project works, such pathways and facilities must be re-established in locations in the park in consultation with the Brisbane City Council.

Condition 21. Worksite rehabilitation

(a) Worksites for project infrastructure, such as the surface connections, stations and ancillary buildings must be rehabilitated as soon as practicable upon completion of the works.

(b) All other worksites required to support commissioning activities must be rehabilitated as soon as practicable on completion of commissioning or sooner where possible.

(c) Rehabilitation must address soil erosion and sedimentation, dust nuisance and landscape and visual impact.

(d) Any planting, landscaping and streetscape works undertaken as part of rehabilitation must be undertaken in accordance with landscape and urban design plans prepared in consultation with the Brisbane City Council.

Condition 22. Temporary emissions and arrangements

Condition 22 temporarily allows response/repair/recovery works for the project in response to the flood event in Brisbane February/March 2022.

Where there is an inconsistency with other conditions imposed by the Coordinator-General for this project, Condition 22 prevails.

The requirements of Condition 4 and Condition 15(b) do not apply to response/repair/recovery works undertaken in accordance with Condition 22.

(a) Condition 22 ceases to have effect upon either:

  (i) 20 business days after the release of Coordinator-General's Change Report No.13 or

  (ii) a later date extended by the Coordinator-General in writing to the Proponent. An extension may contain additional provisions or amended provisions from those in this condition to respond to changed circumstances as the response/repair/recovery works and the flood event progress. Any written extension will be published on the Coordinator-General's website.

(b) The Coordinator-General reserves the right to cancel this condition if new information becomes available that shows the impacts are greater than anticipated.

Condition 22A. Flood Water – temporary emissions

(a) The requirements of Condition 22A apply during high flow, which is defined in Table 22C.

(b) The Proponent must provide details of each flood water release point to the Coordinator-General within 7 days of the publishing of the Coordinator-General's Change Report No.13 for the Cross River Rail project on the department's website. Details of each Flood Water release point must include:

  (i) description of location

  (ii) latitude and longitude (decimal degree, GDA94)

  (iii) Flood Water source and location

  (iv) monitoring point

  (v) receiving waters description

  (vi) identify the asset owner of the stormwater infrastructure used for pump-out upstream of the release point

  (vii) release commencement date / time or predicted.

(c) The release of Flood Water into the receiving waters must only occur from the release points identified in Condition 22A, (b)(i) and (ii).

(d) If safe to do so, the release of Flood Water to high flow receiving waters must be monitored at the monitoring points for each quality characteristic and at the frequency specified in Table 22A and Table 22B.

Table 22A Flood Water release limits

Quality characteristic	Release limits	Monitoring frequency	Comment
pH (pH unit)	6.5 (minimum) 9.0 (maximum)	Daily during release (first sample within two hours of commencement of release)	
Turbidity (NTU)	If receiving water turbidity is equal to or lower than 45 NTU, a turbidity limit of no greater than 55 NTU applies. If receiving water turbidity is greater than 45 NTU, a turbidity limit of no greater	Daily during release (first sample within two hours of commencement of release)	Turbidity is required to assess impacts of released Flood Water on the ecosystem and can provide instantaneous results.

Quality characteristic	Release limits	Monitoring frequency	Comment
	than 25% of the receiving water turbidity applies.		

Table 22B Release contaminant trigger investigation levels, potential contaminants

Quality characteristic[2]	Trigger levels (µg/L)[1]	Monitoring frequency
Aluminium	80	Commencement of release and weekly thereafter during release
Arsenic	94	
Cadmium	14	
Chromium	20	
Copper	3	
Lead	6.6	
Mercury	0.7	
Nickel	200	
Zinc	23	
Boron	680	
Cobalt	14	
Manganese	2500	
Selenium	18	
Silver	2	
Vanadium	160	
Ammonia	1200	
Nitrate	3400	
Petroleum hydrocarbons (C6-C9)	20	
Petroleum hydrocarbons (C10-C36)	100	

Table notes:
1. For aquatic ecosystem protection, marine water, highly disturbed (90% protection)

2. All metals and metalloids must be measured as total (unfiltered) and dissolved (filtered). Trigger levels for metal/metalloids apply if dissolved results exceed trigger.

Note that the Coordinator-General can agree in writing that monitoring of a particular quality characteristic cease at any particular monitoring point, if adequate justification is provided to the Coordinator-General to demonstrate that the quality characteristic specified in Table 22B is unlikely to be present in the Flood Water to be released at that particular monitoring point or would be present in such low volumes as to not warrant monitoring.

(e) If the trigger levels specified in Table 22B are exceeded during releases of flood water into high flow receiving waters, the Proponent must take actions to prevent environmental harm.

(f) For the purposes of Condition 22A, high flow is defined in Table 22C. The release of Flood Water to receiving waters/streams must only take place during periods of natural flow in accordance with the receiving water flow criteria in Table 22C.

Note that changes to the limits/trigger levels in Table 22A or Table 22B can be agreed to in writing by the Coordinator-General, if adequate justification is provided that changes are appropriate and necessary to continue the response/repair/recovery works.

Table 22C Receiving water flow criteria for discharge

Receiving waters/ stream	Gauging station	Gauging station latitude (decimal degree, GDA94)	Gauging station longitude (decimal degree, GDA94)	Receiving water flow recording frequency	Receiving water flow criteria for discharge (m^3/s)
Brisbane River	Brisbane River at Savages Crossing	27°26'23.0"S	152°40'08.2"E	Continuous (minimum daily)	High flow > 100 m^3/s

Note: Information on flow rates is available at **https://water-monitoring.information.qld.gov.au/**

(g) The daily quantity of Flood Water released from each release point must be measured and recorded.

(h) Releases of Flood Water must be undertaken so as not to cause erosion of the bed and banks of the receiving waters or cause a material build-up of sediment in such waters.

(i) Any damage to Brisbane City Council infrastructure, including siltation, from Flood Water releases, must be reported to Brisbane City Council and rectified by the proponent or at the proponent's cost.

(j) The Proponent must:

(i) notify the Coordinator-General as soon as practicable and nominally no later than 24 hours after cessation of a release event; and

(ii) within 28 days of the last release event, submit a report to the Coordinator-General with the following information:

(1) the location, date/time of each release event, including commencement and cessation

(2) natural flow rate in receiving waters

(3) volume of flood water released

(4) all in-situ water quality monitoring results

(5) assessment of compliance of the releases with Condition 22A (i.e. contaminant limits, natural low, discharge volume) and for any non-compliant release event provide detail on:

(A) the reason for the release

(B) the location of the release

(C) the total volume of the release and which (if any) part of this volume was non-compliant

(D) the total duration of the release and which (if any) part of this period was non-compliant

(E) all water quality monitoring results (including all laboratory analyses)

(F) details of investigations carried out

(G) identification of any environmental harm as a result of the non-compliance

(H) explanation of actions taken to prevent environmental harm

(I) all calculations

(J) all in-situ water quality monitoring results

(K) any other matters pertinent to the water release event.

Note that successive or intermittent releases occurring within 24 hours can be considered part of a single release event.

Condition 22B. Noise and vibration – temporary emissions

(a) Where noise levels generated are predicted or monitored as more than 20dBA above the relevant noise goal in Table 2 of Condition 11, works are authorised to occur in a locality:

(i) 24 hours a day, 7 days a week, to support response/repair/recovery works

(ii) with a respite period between 12:00 noon and 2:00pm each day with respite only applying where generating noise levels more than 20dBA $LA10_{adj(15\ min)}$ at a sensitive place that is occupied.

(b) Notices must be given to Directly Affected Persons as soon as practicable, to explain the reasons for noise that exceeds 20dBA above the relevant noise goal in Table 2 of Condition 11. Notices must include timeframes and the extent of the response/repair/recovery work activities to occur.

(c) If practicable, mitigation measures are to be implemented to mitigate exceedances of more than 20dBA above the relevant noise goal in Table 2 of Condition 11.

(d) Where possible, the Proponent must schedule high noise generating response/repair/recovery works between the hours of 6:30am and 6:30pm, Monday to Saturday.

(e) Where vibration levels are predicted or monitored as more than 2mm/s for continuous vibration and 10mm/s for transient vibration, works are authorised to occur in a locality:

(i) 24 hours a day, 7 days a week, to support releases response/repair/recovery works

(ii) with a respite period between 12:00 noon and 2:00pm each day with respite only applying where generating vibration levels more than those levels nominated in Table 3 (Human Comfort) of Condition 11 at a Sensitive Place that is occupied.

(f) Notices must be given to Directly Affected Persons as soon as practicable, to explain the reasons for vibration that exceeds vibration levels more than those levels nominated in Table 3 (Human Comfort) of Condition 11 at a Sensitive Place that is occupied. Notices must include timeframes and the extent of the response/repair/recovery work activities to occur.

(g) If practicable, mitigation measures are to be implemented to mitigate exceedances of vibration levels more than those levels nominated in Table 3 (Human Comfort) of Condition 11 at a Sensitive Place that is occupied.

(h) Where possible, the Proponent must schedule high vibration works between the hours of 6:30am and 6:30pm, Monday to Saturday.

Condition 22C. Hours of work – temporary arrangements

(a) In addition to the hours set out in Condition 10 (Hours of Work), response/repair/recovery works may be undertaken within the hours set out in Table 22D of Condition 22C.

(b) The Proponent must notify local communities near the relevant project worksite as soon as practicable of the commencement of response/repair/recovery works undertaken outside the hours set out in Table 1 of Condition 10, including timeframes and types of work activities to occur.

(c) Where possible, response/repair/recovery works should be scheduled outside of the hours of 10:00pm and 6:30am.

Table 22D Temporary construction hours during response/repair/recovery works

Worksite	Work Hours	Spoil haulage and materials/ equipment delivery
Boggo Road Railway station	24 hours, 7 days	24 hours, 7 days, except for: Monday to Friday: 7:30am – 9:00am 2:30pm – 4:30pm
Dutton Park Railway station	24 hours, 7 days	24 hours, 7 days, except for: Monday to Friday: 7:00am – 9:00am 4:30pm – 6:30pm
Woolloongabba Railway station	24 hours, 7 days	24 hours, 7 days, except for: Monday to Friday: 7:00am – 9:00am 4:30pm – 6:30pm
Roma Street Railway station	24 hours, 7 days	24 hours, 7 days, except for: Monday to Friday: 7:30am – 9:00am 4:30pm – 6:30pm
All remaining Cross River Rail worksites	24 hours, 7 days	24 hours, 7 days

Condition 22D. Transport – temporary arrangements

(a) Diversions for heavy construction vehicles from designated haulage routes for spoil haulage and deliveries of major plant, equipment and materials that have been designated in accordance with the Construction Environmental Management Plan, are granted provided that:

(i) diversions are developed in consultation with the Department of Transport and Main Roads and Brisbane City Council

(ii) schools are notified of any diversions in close proximity to operating schools and these are minimised to the extent practicable.

Note that the safety of roads impacted by the flood event must be cleared for heavy vehicles prior to use.

Key terms and/or phrases for Condition 22

'Flood Water' means the following types of water:

(a) groundwater

(b) flood water

'natural flow' means the natural water flow through a watercourse.

'receiving environment' in relation to an activity that causes or may cause environmental harm, means the part of the environment to which the harm is, or may be, caused. The receiving environment includes (but is not limited to):

(a) a watercourse

(b) groundwater

'receiving waters' means the waters into which Condition 22 allows releases of Flood Water.

'release event' means a release of Flood Water from a release point.

'response/repair/recovery works' are works for the project in response to the flood event in Brisbane February/March 2022.

'watercourse' has the same meaning given in the *Water Act 2000*.

'water quality' means the chemical, physical and biological condition of water.

'waters' includes river, stream, lake, lagoon, pond, swamp, wetland, unconfined surface water, unconfined natural or artificial watercourse, bed and bank of any waters, dams, non-tidal or tidal waters (including the sea), storm water channel, storm water drain, and groundwater and any part thereof.

Part D. Imposed Conditions (Commissioning)

Condition 23. Environmental design requirements

(a) The Proponent must conduct such testing and monitoring as is necessary to demonstrate that the Environmental Design Requirements in Schedule 1 have been satisfied.

(b) At the completion of Commissioning, the Proponent must give written notice to the Coordinator-General that the Project has achieved the Environmental Design Requirements in Schedule 1.

Condition 24. Commissioning

(a) Commissioning may be carried out in stages.

(b) Testing for commissioning must be supported by advanced notice to local residents and businesses.

(c) Testing for commissioning must not cause an exceedance of the goals in Table 2, Table 3, Table 4 or Condition 15.

Schedule 1. Environmental Design Requirements

1. Traffic and transport

(a) Emergency access and evacuation for each station and the tunnel is designed in consultation with the Emergency Service Authorities.

(b) Station plazas and forecourts are of a sufficient size and dimension to avoid peak pedestrian flows spilling onto adjacent carriageways. Where the overflow of pedestrians onto carriageways cannot be avoided, local traffic management measures addressing such circumstances must be designed and implemented prior to the commencement of Project operations.

(c) Pedestrian and cycle pathways in the vicinity of stations are designed in accordance with Rail Infrastructure Manager's and TMR's requirements.

(d) The design of driveways and roadworks for the Project avoid conflicts between construction traffic and cyclists and pedestrians.

(e) New footpaths, pedestrian walkways and pedestrian road crossings in the vicinity of stations are designed, in consultation with BCC and emergency services authorities, to allow safe and efficient pedestrian movement during peak periods and, where applicable, major events at the Brisbane Cricket Ground (Woolloongabba station), Lang Park (Roma Street station) and the RNA Showgrounds (Exhibition station).

(f) The Project design provides for pedestrian connectivity between the PA Hospital, Boggo Road Busway station and Park Road Railway station, and incorporates appropriate crime prevention through environmental design (CPTED) principles and *Disability Discrimination Act 1992* (DDA) compliant vertical transport facilities.

2. Air Quality

(a) Ventilation outlets from underground stations are designed and sited so as not to cause an increase in air temperature of more than one degree Celsius, measured as an hourly average, or concentrations of ambient air contaminants that exceed air quality objectives.

(b) The Project is designed so that it does not cause the air quality objectives specified in Table 5 to be exceeded.

(c) The ventilation outlets are designed to avoid discharging directly into an air intake for any other ventilation or air conditioning system that is in place at the time of detailed design and construction of the relevant ventilation outlet.

Table 5. Ambient air quality outcomes

Pollutant	Air Quality Objective	Average Period
Total Suspended Particulates (TSP)	90 µg/m^3	Annual
Particulates as PM10 (<10 µm)	50 µg/m^3	24 hours
	25 µg/m^3	Annual

3. Noise and Vibration

(a) Where practicable, the Project is designed to achieve the following noise criteria for railway surface track airborne noise emissions:

(i) 65 dBA, evaluated as the 24 hour average equivalent continuous A-weighted sound pressure level;

(ii) 87 dBA, evaluated as a Single Event Maximum sound pressure level.

Note: The Single Event Maximum (SEM) Sound Level will be calculated as follows:

- If the number of single events due to train passing is larger than 15 over a 24-hour period, use the arithmetic average of the maximum levels for the highest 15 events.
- If the number of single events due to train passing is equal to or less than 15 over a 24-hour period, use the arithmetic average of the maximum levels for all the train events (e.g. if a total of 13 passes occur over a 24- hour period, use the arithmetic average of all 13 movements).
- Noise modelling or monitoring activities aimed at assessing performance against the Planning Levels must be undertaken 1 metre from the most exposed façade of an affected building an 0.5 metres below the eave height.

(b) Where practicable, the Project is designed to achieve the goals for ground-borne noise provided in Table 6 and for vibration provided in Table 7.

(c) Ventilation systems, mechanical plant, and electricity feeder stations at or near stations are designed and sited to operate within the noise goals outlined in Table 8.

Table 6. Ground-borne noise design criteria (rail operations) – tunnels and underground station

Receiver	Time of day	Internal noise design criteria (dBA)
Residential	07:00-22:00	40dBA
	22:00-07:00	35dBA
Schools, educational institutions, places of worship.	When in use	40dBA to 45dBA
Retail areas	When in use	50dBA to 55dBA
General office areas	When in use	45dBA
Private offices and conference rooms	When in use	40dBA
Theatres	When in use	35dBA

Table 7. Ground-borne vibration design criteria (rail operations)

Receiver type	Period	Vibration goal (vibration velocity)
Residential	Day/ night	106dBV (0.2 mm/s)
Commercial and community facilities (including schools and places of worship)	When in use	112dBV (0.4 mm/s)
Industrial	When in use	118dBV (0.8 mm/s)
Sensitive equipment within medical or research facilities	When in use	82dBV (0.013 mm/s)

Table 8. Mechanical plant noise goals (operations)

Receiver	Time of day	Background (b/g) noise creep dBA LA_{90} (1 hour)	Acoustic quality objectives dBA LA_{eq} (1 hour)
Residential (for outdoors)	07:00 - 22:00	b/g + 0	50
	22:00 - 07:00	b/g + 0	-
Residential (for indoors)	07:00 – 22:00	-	35
	22:00 – 07:00	-	30
Library and educational institution (for indoors)	When in use	-	35
Commercial and retail activity (for indoors)	When in use	-	45

4. Settlement

(a) Detailed design of the alignment and underground stations will be informed by a detailed ground settlement analysis, based on hydrogeological and geological modelling

(b) The settlement analysis will indicate the predicted horizontal and vertical extent of ground settlement for the Project Works and the time period over which such ground settlement would occur.

5. Hydrology

(a) A hydrogeological model will be developed during detailed design and before construction of relevant sections to determine ground conditions along the tunnel section.

(b) Further borehole investigations, groundwater monitoring and permeability testing at the station locations and along the tunnel alignment to identify and characterise any major transmissive features and better constrain the local hydrogeological model for detailed design.

(c) Review available bore construction records and target aquifers to determine the suitability of monitoring bores installed during the geotechnical investigations for ongoing groundwater monitoring for construction and commissioning. Following this review, additional bores may be proposed to address gaps identified in the groundwater monitoring network.

(d) Identify through surveys and consultation, water bores in the area potentially affected by groundwater drawdown and implement measures to mitigate potential effects on identified bores.

(e) In the event a new ‘groundwater feature’ (e.g. areas of high groundwater flow/ yield) is identified along the Project alignment, further detailed groundwater monitoring would be undertaken to characterise the feature and identify potential impacts to the environment. Additional management measures would be developed, where required.

(f) Develop and implement design measures and construction methods to minimise groundwater inflows in to the construction area.

(g) The Project design provides for the capture of groundwater seepage, should it enter the underground structures, and the subsequent treatment of such groundwater prior to its release to an approved discharge point.

(h) Where the project design anticipates groundwater entering underground structures, the design provides:

(i) measures to minimise settlement due to project-induced drawdown;

(ii) measures to ensure structural integrity and Project operational safety; and

(iii) measures to minimise the risk of exposing acid sulphate soils to air or the chance for oxidation.

(i) The Project design achieves the water quality objectives stated for the Brisbane River Estuary environmental values and water quality objectives (Basin No. 143 mid-estuary) referred to in the Environmental Protection (Water) Policy 2009 for water, including groundwater, released from the tunnels and underground stations to surface waters.

(j) The project design achieves no increase in pollutant loads for water, including groundwater, released from the surface works to surface waters.

(k) The Project design is based on current flooding information to achieve flood immunity to the tunnel infrastructure and underground stations in a 1 in 10,000 year annual exceedance probability (AEP) regional flood event, and a 1 in 100 AEP overland flow event.

(l) The Project design will not cause property damage from flood impacts to third parties for events up to and including the 1 in 100 AEP flood event.

(m) Project Works in Mayne Rail Yard must be designed on the basis of detailed flood modelling.

6. Cultural Heritage

(a) The Project design reflects and minimises the impact on the cultural and historical significance of places where surface works occur, and where reasonable and practicable, avoids or minimises the direct impact on heritage values of such places.

(b) The Project design acknowledges a locality's historical significance or cultural significance to Aboriginal people through input to:

(i) place naming;

(ii) interpretative signage and other landmarks; and

(iii) the themes for public art.

(c) In developing the Project design, the Proponent would provide opportunities for architectural design sympathetic to the cultural heritage landscape and streetscape.

7. Climate change and sustainability

(a) Project ventilation systems are designed to minimise energy consumption while achieving acceptable passenger comfort and air quality outcomes in both the ambient environment and the Project stations and tunnel system.

(b) The Project is designed to be adaptable to conditions that may arise as a result of climate change, including accommodating the predicted 1.0 m sea level rise scenario in 2100 (upper range).

(c) Sustainability initiatives, particularly in relation to energy consumptions and savings throughout the Project lifecycle are incorporated in detailed design and tracked via a Sustainability Tool (e.g. ISCA's rating tool) through to Project implementation.

(d) In design and construction, devise and implement a process for optimising energy efficiency in construction planning and delivery (e.g. component sourcing and transportation, spoil and materials handling – no double handling, programing to avoid re-work or redundant work).

(e) In operations, energy efficient design that meets the performance criteria of all Project plant and equipment would be included in the design specification.

8. Land use and tenure

(a) Minimise the 'footprint' of the Project during both construction and operations to reduce impacts on existing land uses through design refinement.

(b) The Project design seeks to optimise land use and transport integration with:

(i) PA Hospital, Boggo Road Busway station, Park Road Railway station and Boggo Road Urban Village;

(ii) Woolloongabba Priority Development Area (PDA);

(iii) Albert Street;

(iv) Roma Street; and

(v) Bowen Hills PDA.

(c) The Project is to be designed in consultation with:

(i) Rail Infrastructure Manager in relation to use of Railway land required for project worksites; and

(ii) Proponents for urban development projects at Boggo Road Urban Village, Woolloongabba PDA, Albert Street and Roma Street redevelopment and Royal National Agricultural and Industrial Association of Queensland (RNA) redevelopment.

(d) The Project design minimises the loss of public open space in Victoria Park during construction.

9. Visual amenity and lighting

(a) The Project design seeks to minimise the visual impact of the above-ground infrastructure with regards to its scale, height and bulk. Specific urban design and visual impact studies are required to inform detailed design for:

(i) the station ventilation outlets and intake structures;

(ii) the above-ground electricity feeder stations;

(iii) the portals and transition structures; and

(iv) noise barriers and other impact mitigation devices or structures.

(b) Where required, noise barriers are designed to reduce the visual impacts to surrounding properties and roadways by:

(i) incorporating urban design treatments and landscape elements such as massed plantings;

(ii) using clear or transparent materials to maintain existing expansive views beyond the rail corridor, subject to security and maintenance considerations being evaluated; and

(iii) avoiding the use of highly reflective materials and materials that support graffiti.

(c) Landscaping, urban design and public art treatments sympathetic to heritage landscape and streetscape values are incorporated into the design of Project Works at stations and thoroughfares accessing stations.

10. Social environment

(a) The design of stations and public spaces developed as part of the Project stations incorporate CPTED principles to maximise commuter safety.

11. Waste

(a) The Project is designed to minimise waste generation and maximise the reuse and recycling of waste materials generated by the Project during its construction and operation.

(b) Opportunities are investigated during the detailed design phase for the use of recycled materials, including for Project infrastructure produced from concrete, road base, asphalt and other construction materials.

(c) During detailed design, the feasibility of re-using material excavated from the Project is investigated.

Schedule 2. Nominated entities with jurisdiction for conditions

Table A1 lists the organisations/agencies responsible for each of the Coordinator-General's Imposed Conditions (Appendix 1).

Table A1 Entities with jurisdiction for Coordinator-General imposed conditions

Part	Approval	Condition no.	Entity with jurisdiction
A	General conditions	1	Coordinator-General
A	Outline Environmental Management Plan	2	Coordinator-General
B	Design	3	Chief Executive, TMR
C	Construction Environmental Management Plan	4	Chief Executive, TMR
C	Compliance	5	Chief Executive, TMR
C	Reporting	6	Chief Executive, TMR
C	Environmental Monitor	7	Coordinator-General
C	Community Relations Monitor	8	Coordinator-General
C	Community engagement plan	9	Chief Executive, TMR
C	Hours of work	10	Chief Executive, TMR
C	Sunday haulage for Roma Street Railway station worksite	10A	Chief Executive, TMR
C	Sunday haulage for Albert Street Railway station worksite	10B	Chief Executive, TMR
C	Construction Noise and Vibration	11	Chief Executive, TMR
C	Property Damage	12	Chief Executive, TMR
C	Air Quality	13	Chief Executive, TMR
C	Traffic and Transport	14	Chief Executive, TMR
C	Water quality	15	Chief Executive, TMR
C	Water resources	16	Chief Executive, TMR
C	Surface water	17	Chief Executive, TMR
C	Erosion and sediment control	18	Chief Executive, TMR
C	Acid sulphate soils	19	Chief Executive, TMR
C	Landscape and open space	20	Chief Executive, TMR
C	Worksite rehabilitation	21	Chief Executive, TMR
C	Temporary emissions and arrangements	22	Coordinator-General
C	Flood Water – temporary emissions	22A	Coordinator-General
C	Noise and vibration – temporary emissions	22B	Coordinator-General

Part	Approval	Condition no.	Entity with jurisdiction
C	Hours of work – temporary arrangements	22C	Coordinator-General
C	Transport – temporary arrangements	22D	Coordinator-General
D	Environmental design requirements	23	Chief Executive, TMR
D	Commissioning	24	Chief Executive, TMR

Schedule 3. Definitions

Directly Affected Persons means an entity being either the owner or occupant of premises for which predictive modelling or monitoring indicates the project impacts would be above the performance criteria in the Imposed Conditions.

Construction Environmental Management Plan means the Construction Environmental Management Plan referred to in Condition 4.

Outline EMP means the Outline EMP approved by the Coordinator-General in Condition 2.

Managed Work means Project Work for which either the predicted or monitored impacts meet the performance criteria at a Sensitive Place.

Non-Compliance Event means Project Works that do not comply with the Imposed Conditions

Predictive Modelling means the use of appropriate analytical scenario testing, whether or not by numerical measurements, undertaken prior to the commencement of Project Works.

Project Work means any works, including early works, demolition works or site preparation works, for construction of the project. Project Work does not include:

- any works associated with the demolition of buildings and structures on State owned land;
- works involving the relocation or replacement of public utilities when undertaken by a public utility authority or provider;
- the placement and management of spoil at spoil placement locations
- works associated with the temporary Roma Street Coach Terminal.

Sensitive Place means:

- a dwelling (including residential allotment, mobile home or caravan park, residential marina or other residential premises, motel, hotel or hostel)
- a library, childcare centre, kindergarten, school, university or other educational institution
- a medical centre, surgery or hospital
- a protected area
- a public park or garden that is open to the public (whether or not on payment of money) for use other than for sport or organised entertainment
- a work place used as an office or for business or commercial purposes, which is not part of the project activity(ies) and does not include employees accommodation or public roads.

Appendix 2. Coordinator-General's recommendations for the Cross River Rail project

This appendix includes the Coordinator-General's recommendations for the Cross River Rail project.

Recommendation 1. Ecosciences building planning

The proponent should continue to undertake consultation with the key stakeholders to minimise constraints on the planned development of the stage 2 of the Ecosciences Precinct.

Recommendation 2. Greenspace planning

The proponent should liaise with Brisbane City Council to offset the loss of public open space/pocket parks in accordance with Element 6 Nature Conservation of the OEMP.

Recommendation 3. Silicosis

The proponent should consider the findings from the Coal Workers' Pneumoconiosis Select Committee final report, Black Lung White Lies – Inquiry into the re-identification of Coal Workers' Pneumoconiosis in Queensland. Implement relevant recommendations regarding the potential impacts from silica to underground workers involved in tunnelling construction (silicosis) and include in:

(a) The Hazard and Risk sub-plan and/or

(b) The Air Quality sub-plan

Recommendation 4. Mined tunnelling

Mined tunnelling should be implemented in accordance with the Work Health and Safety Act – Tunnelling Code of Practice 2011 and the Excavation Work Code of Practice 2017.

Recommendation 5. Myer Centre carpark

The proponent should undertake an assessment taking into consideration the potential impacts on surface pedestrian, traffic and public transport networks of the proposed changes to exit arrangements for the Myer Centre carpark in consultation with Brisbane City Council and Myer Centre management.

Recommendation 6. Freight

The proponent should engage and consult with key stakeholders such as the Western Freight Users Group and the Rail Infrastructure Manager regarding the possession of the rail corridor to reduce potential impacts on rail freight movements during construction in accordance with Element 2 of the OEMP.

Recommendation 7. Pavement impacts

In consultation with Brisbane City Council, the proponent should develop mitigation measures to address any assessed pavement damage on local roads from project spoil haulage.

Recommendation 8. Noise and Vibration

The proponent should consult with relevant advisory agencies in the development of mitigation measures for predicted and monitored noise and vibration impacts above the goals for the CEMP.

Recommendation 9. Dust impacts - Southern Portal / Boggo Road Railway station worksites

The proponent should conduct predictive air quality modelling for early construction earthworks prior to the commencement of Project Works. Should exceedance of the goals in Table 4 of the Imposed Conditions be predicted, I recommend that consultation be undertaken with relevant entities including representatives of the PA Hospital, Leukaemia Foundation ESA Village, Ecosciences Precinct and the TRI building in the development of mitigation measures.

The proponent should establish real-time monitoring, with monitoring stations positioned at appropriate locations around the proposed worksites. Should exceedances of the goals in Table 4 be monitored or occur during construction, that are attributable to the project, the proponent should revise their adaptive management approach where necessary.

Recommendation 10. Boggo Road Pedestrian Connection

It is recommended that the Proponent refine the "Boggo Road Pedestrian Bridge Concept" (as shown in the Response to Submission Report dated June 2019) in consultation with the Department of Transport and Main Roads, Brisbane City Council, Ecosciences and the Princess Alexandra Hospital to maintain consistency with the Environmental Design Requirements for Traffic and Transport.

Recommendation 11. Traffic Management

In developing the Construction Traffic Management Plans required by Imposed Condition 14, it is recommended that the Proponent:

- continue to participate in the Traffic Management Liaison Group, together with Brisbane City Council, Translink and DTMR;
- undertake detailed analysis and modelling of the proposed temporary closure and diversion of the Inner Northern Busway at Roma Street;
- provide the outcomes of that analysis to Brisbane City Council and Translink to inform future public transport timetable management to accommodate the temporary diversion;
- consider the concurrent construction of other projects in the central business district in determining the appropriate spoil haulage hours in the central business district through the Construction Traffic Management Plan;
- consider the appropriate spoil haulage and materials equipment delivery hours at worksites in the vicinity of schools, taking into consideration student drop-off and pick-up hours between 7-9am and 2-4pm on school days.

Recommendation 12. Parkland Boulevard

It is recommended that the Proponent investigate the feasibility of upgrading access between the Roma Street Parklands and Parkland Boulevard Apartments and the external road network, with particular emphasis given to considering whether amendments to the College Road/Wickham Terrace/Gregory Terrace/Parkland Boulevard intersection could accommodate an alternative egress point for Roma Street Parklands residents.

Recommendation 13. Flood studies

It is recommended that detailed hydraulic modelling be conducted as part of the final detailed design for the bridge structures in Breakfast Creek and Moolabin Creek.

Brisbane City Council should be consulted on hydraulic modelling which will inform construction methodology and bridge design. Hydraulic modelling should be provided to Brisbane City Council for review and comment.

Recommendation 14. Consultation with key stakeholders

It is recommended that the Proponent should continue to undertake consultation with directly affected persons and key stakeholders for the duration of construction, to minimise and manage Project impacts.

Recommendation 15. Noise mitigation at Dutton Park

Consistent with achieving the Environmental Design Requirements for Noise and Vibration, it is recommended that where predictive modelling indicates exceedances of the noise criteria for railway surface track airborne noise emissions, the Proponent consult with Queensland Rail and residents of Cope Street during detailed design and consider noise mitigation measures that balance achieving compliance with MD-15- 317, operational rail requirements and amenity impacts for residents of Cope Street.

Recommendation 16. Noise mitigation at Albert Street and Roma Street

To assist with meeting the project's construction noise criteria for night time cavern excavation and construction works, it is recommended that the Proponent consider (as part of the detailed construction planning) the use of a high performance enclosure for noise attenuation generally in the location of the "purpose built acoustic enclosure" shown on Drawing CRR-0003-CD-GA-150 and Drawing CRR-0003-CD-GA-155.

Recommendation 17. Managing impacts on homeless persons and associated community service providers

It is recommended that the Proponent continue to work in cooperation with key stakeholders, including the Queensland Council of Social Service, Department of Housing and Public Works, Department of Communities, Queensland Health, Brisbane City Council and government funded Micah Projects to provide appropriate assistance to homeless persons who may be adversely affected by the Project Works. In particular. the proponent should use targeted communication at each construction site and engage relevant stakeholders early to ensure appropriate notice is provided to homeless people and service providers prior to construction commencing.

Office of the Coordinator-General
PO Box 15517 City East Qld 4002 Australia
tel 13 QGOV (13 74 68)
crr@coordinatorgeneral.qld.gov.au
www.statedevelopment.qld.gov.au/crr

Queensland Government