

Construction Environmental Management Plan

Cross River Rail – Rail, Integration and Systems Alliance

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Revision Details

Rev	Remarks
A	Final C-EMP for Review and endorsement by the Independent Environmental Monitor (IEM)
B	Updated C-EMP to incorporate comments from the Independent Environmental Monitor
C	Updated C-EMP to incorporate comments from the Independent Environmental Monitor
00	Endorsed by the Independent Environmental Monitor for Advance Works and Enabling Works
01	For Endorsement by the Independent Environmental Monitor for the following additional RIS Scope of Works Northern Stage 1 Works Mayne Yard North Stage 1 & 2 RNA Stage 1
02	6 monthly review and updated to incorporate changes linked to RfPC-7 and Updated O-EMP The update does not include endorsement for new or additional Relevant Project Works
03	Issued for Review to IEM Consistent with the Environmental Monitor's Endorsement letters dated 23 August 2019 and 14 July 2020 this C-EMP is endorsed for the following Relevant Project Works Advance Works Enabling Works Northern Corridor Stage 1 RNA Showgrounds Stage 1 Mayne Yard North Stage 1 & Stage 2 Endorsement letters have now been included in Attachment 7
04	Issued for Use – no further comments to be addressed Consistent with the Environmental Monitor's Endorsement letters dated 23 August 2019 and 14 July 2020 this C-EMP is endorsed for the following Relevant Project Works Advance Works Enabling Works Northern Corridor Stage 1 RNA Showgrounds Stage 1 Mayne Yard North Stage 1 & Stage 2
05	Issued for Review to the IEM Consistent with Appendix 1, Part C, Imposed Condition 4g(i) the C-EMP has been Updated to include additional Relevant Project Works to those already endorsed. The Additional Project Works UNITY is seeking endorsement for are: Fairfield Station – All scope Yeronga Station – All scope Northern Corridor – Stage 2
06	Issued for Use – minor comments from IEM on section 6.2 and 6.4 addressed Consistent with the Environmental Monitor's Endorsement letters dated 23 August 2019, 14 July 2020 and 13 October 2020 this C-EMP is endorsed for the following Relevant Project Works Advance Works Enabling Works Northern Corridor Stage 1 & Stage 2 RNA Showgrounds Stage 1 Mayne Yard North Stage 1 & Stage 2 Fairfield Station – All scope Yeronga Station – All scope

Rev	Remarks
07	<p>Issued for review to the IEM</p> <p>Consistent with Appendix 1, Part C, Imposed Condition 4g(i) the C-EMP has been Updated to include additional Project Works to those already endorsed. The additional Project Works UNITY is seeking endorsement for are:</p> <p>Clapham Yard Stage 1</p> <p>The C-EMP (Section 4.1.3 and Attachment 3) have also been updated to incorporate changes linked to RfPC-8 which was approved on 19 November 2020</p>
08	<p>Issued for Use – No comments from IEM</p> <p>Consistent with the Environmental Monitor's Endorsement letters dated 23 August 2019, 14 July 2020, and 23 December 2020 this C-EMP is endorsed for the following Relevant Project Works</p> <p>Advance Works</p> <p>Enabling Works</p> <p>Northern Corridor Stage 1 & Stage 2</p> <p>RNA Showgrounds Stage 1</p> <p>Mayne Yard North Stage 1 & Stage 2</p> <p>Fairfield Station – All scope</p> <p>Yeronga Station – All scope</p> <p>Clapham Yard – Stage 1</p>
09	<p>Issued for review to the IEM</p> <p>Consistent with Appendix 1, Part C, Imposed Condition 4g(i) the C-EMP has been updated to include additional Project Works to those already endorsed. The additional Project Works UNITY is seeking endorsement for are:</p> <p>RNA Showgrounds - All scope</p> <p>Breakfast Creek B08</p> <p>Yeronga Footbridge</p>
10	<p>Issued for Use</p> <p>Consistent with Appendix 1, Part C, Imposed Condition 4g(i) the C-EMP has been updated to include all Project Works as described in section 1.3.</p>
11	<p>Issued for review to the IEM</p> <p>6 monthly review and update to incorporate</p> <ul style="list-style-type: none"> • changes linked to RfPC-11 • addition of the Southern Area Scope of Works (Dutton Park and Buranda) <p>Consistent with Appendix 1, Part C, Imposed Condition 4g(i) the C-EMP has been updated to include additional Project Works, Southern Area Scope, as described in Section 1.3.</p>
12	<p>Updated following IEM review to</p> <ol style="list-style-type: none"> 1. remove Buranda Cross Over B3 (Digger Street Road Overbridge to Norman Creek) from the Project Works description in section 1.2 until such time a resolution on whether this scope is an RfPC matter is resolved with the Proponent 2. include the NCE process in section 1.6, which was prepared by the Proponent as part of their Assurance Framework Document (August 20212)
13	<p>Issued for Use</p> <p>Consistent with Appendix 1, Part C, Imposed Condition 4g(i) the C-EMP has been updated to include all Project Works as described in section 1.3.</p>

1 Purpose of this Plan

The Cross River Rail Delivery Authority (the Delivery Authority) is responsible for facilitating the efficient delivery of the Cross River Rail (CRR) Project (the Project).

Cross River Rail will be delivered in partnership with the private sector through three major infrastructure packages of work: the Tunnel, Stations and Development (TSD) public-private partnership; the Rail, Integration and Systems (RIS) alliance; and the European Train Control System (ETCS) contract.

The Rail, Integration and Systems (RIS) alliance will be delivered by the UNITY Alliance.

The Construction Environmental Management Plan (C-EMP) forms the basis of the construction assurance program to be implemented during UNITY's construction and commissioning activities, until such time as it provides all relevant written notices to the Delivery Authority that the RIS Project has achieved environmental design requirements.

The C-EMP is compiled based on the requirements of the CPB Contactors Management System (CMS), as outlined in the Alliance Management Plan (AMP) and has been specifically tailored to ensure compliance with the CRR Project requirements.

1.1 Background

This plan describes UNITY's systems and processes for environmental management and the strategies we will implement throughout construction and commissioning to effectively minimise, and where possible avoid impacts to the environment and community, while remaining compliant with the RIS Project's Conditions of Approval.

It presents best-practice environmental management strategies, plans and commitments in accordance with currently known Conditions of Approval and Delivery Authority requirements, and outlines the controls we use to address specific issues identified in the:

- Coordinator-General's Change Report (CGCR) <http://www.dsdmip.qld.gov.au/coordinator-general/assessments-and-approvals/coordinated-projects/completed-projects/cross-river-rail-project/project-changes.html>
- Cross River Rail Outline Environmental Management Plan (OEMP), <https://crossriversrail.qld.gov.au/planning-environment/environment-approvals/environmental-management/>
- Environmental Design Report (EDR)
- Sustainability Management Plan (SMP)

This includes but is not limited to:

- Noise and Vibration management
- Air quality management
- Heritage management
- Water quality management.

UNITY's environmental sub-plans identify the project activities specific to each environmental aspect that present a potential environmental risk. Each sub-plan details the main controls UNITY will use to manage and minimise impacts on the environment, reflecting best-practice mitigation measures and guidelines.

1.2 Project Summary

Details of the full project scope inclusive of the RIS alliance scope of works are presented in the Requests for Project Change published for Public Consultation. The most up to date details can be found on the project website: <https://crossriverrail.qld.gov.au/eis-project-changes/>

The RIS Alliance scope of works spans the following key areas defined as:

- **Mayne Area** – the rail corridor bounded by the southern side of Albion Station, the northern side of O’Connell Terrace and the southern side of Bowen Hills Station
- **Northern Area** – the Exhibition loop rail corridor bounded by the northern side of O’Connell Terrace and the northern portal near the northern end of College Road
- **Southern Area** – the rail corridor commencing north of Dutton Park Station (inclusive of Dutton Park Station) to the north of Denham Street and a section of rail corridor east of Buranda Station (otherwise referred to as Buranda Cross Overs) and west of Digger Street Road Overbridge.
- **F2S Area** – the rail corridor commencing south of Dutton Park Station south of the Southern Portal and which generally follows the rail corridor to just south of the existing Salisbury railway station and includes Clapham Yard.

1.3 Project Works - Activities Summary

The Coordinator-General’s change report defines Project Works as follows in Appendix 1, Schedule 3:

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.

For the purpose of this C-EMP, the Project Works addressed in the Plan include:

- Advance Works – site wide investigations comprising of intrusive and non-intrusive works:
 - Intrusive works include but may not be limited to:
 - Positive Public Utility Plant (PUP) locations identification
 - Geotechnical Surveys
 - Contaminated Land, Acid Sulphate Soils, and groundwater surveys
 - Non-intrusive works include but may not be limited to:
 - PUP locations pre-identification
 - Traffic control works, that is traffic management and access to support the intrusive and pioneering works
 - Topographical and boundaries surveys
 - Dilapidation surveys
 - Environmental surveys such as fauna and flora surveys, heritage values assessment and recording
 - Environmental monitoring such as surface water, groundwater, background noise, vibration, and air quality monitoring

- Enabling Works:
 - **Project Construction Offices & Compounds:** UNITY's temporary site facilities, as detailed below, are designed to maximise team productivity while minimising impacts to local businesses, community members and the travelling public. It includes use of a main project office, facilities along the alignment and facilities dedicated to each of the F2S stations as detailed in the General Construction Site Plans (RfPC-7 Volume 2).
 - Main project Office: Gilchrist Avenue, Herston (project majority)
 - Satellites and facilities – general alignment:
 - RNA, O'Connell Terrace, Bowen Hills
 - Mayne Yard rail office
 - Victoria Park, Spring Hill
 - Satellites and facilities – F2S inclusive of Southern Area:
 - Salisbury Station
 - Rocklea Station
 - Clapham Yard
 - Yeerongpilly Station
 - Yeronga Station
 - Fairfield Station.
 - Dutton Park Station
 - Northern Portal from College Road to Mayne neck which consist of decommission of redundant Normanby roads and enable holding road with turnback
 - Mayne North enabling works which consist of decommissioning Mayne Yard North
 - Biomedical Technology Services (BTS) building demolition near Victoria Park and establishment of site access to the Rail Corridor
 - In corridor rail enabling works such as OHLE mast foundation preparation, removal of redundant track and removal of unsuitable material
- Major Construction Works – site wide. The below list summarises the key activities for Relevant Project Works with Section 1.5 providing additional detail on typical construction methodologies for key activities.
 - **Southern Area:** Dutton Park station upgrade and track works inclusive of crossovers east of Buranda station and south of Dutton Park station. Overall staging in the Southern Area includes but is not limited to:
 - Stage 1 – Site clearance, crossover earthworks, OHLE foundations and portals. Cope Street Property demolition (on State Owned Land), retaining walls, vertical transport foundations at Dutton Park. Earthworks, OHLE, CSR and track work for the Buranda crossovers (excluding Crossover B3 between Digger Street Road Overbridge and Norman Creek)
 - Stage 2 – Predominantly work on Dutton Park station including demolition, platform construction and piling
 - Stage 3 – Predominantly work on Dutton Park station realigning track works
 - Stage 4 – Earthworks, track works, OHLE foundations and structures. Complete platform construction and Dutton Park station. Piling for Annerley Road bridge.
 - Stage 5 – Track connection in the Southern portal

- **Fairfield to Salisbury (F2S) inclusive of Clapham Yard upgrades:** The two key features of the southern area are the F2S stations and Clapham Yard:
 - F2S stations package, comprises six stations upgrades including:
 - Third platform added at each station to increase capacity.
 - Building and Trackwork at all six stations to improve operations inclusive of track lowering works at Fairfield, Yeronga, and Rocklea Station.
 - New pedestrian bridge over Fairfield Road at Yeronga Station.
 - New pedestrian bridge over Clapham Yard at Moorooka station, to connect the new third platform to the existing station platforms.

Clapham Yard stabling facilities expanded to provide additional train storage and maintenance inclusive of a new bridge and two bridge upgrades over Moolabin Creek. Overall staging at Clapham Yard includes but is not limited to:

- Stage 1 – Site clearance, demolition, rail civil works, drainage, track works and bridge construction.
- Stage 2 – Predominantly approved rail possession works to reconfigure dual gauge track to Western side of the yard.
- Stage 3 – Remove existing yard and build new yard, drainage, bridge construction, RMAR pavements, graffiti wash and yard facilities.
- Stage 4 – Predominantly approved rail possession works to close Moorooka Station and divert suburban line.
- Stage 5 – Construct Moorooka station, bridge, and viaduct construction, RMAR pavements, graffiti wash and yard facilities.
- Stage 6 & 7 – Finalise Clapham Yard. Commissioning of Yeerongpilly Junction and Clapham Yard predominantly under approved rail possessions.

Staging in the southern area requires varying levels of corridor access including using the existing standard possessions of the Inner City, Cleveland, and Gold Coast lines:

- Standard possessions – between November 2019 and March 2024.
 - Night Works – Working windows of ‘after last train’ and ‘before first train.’
 - Extended possessions – around public holidays for commissioning works.
- **Tunnel Stages:** Tunnel construction will be managed by the TSD consortium. However, UNITY will be responsible for integration of the traction power, signalling system and building management system into the Queensland Rail operational network at the Rail Management Centre (RMC) and Disaster Recovery Centre (DRC)
 - **Northern Stages – Northern Corridor, Exhibition Station and Mayne Yard Construction**
Activities: The two key features of the northern area are Exhibition Station and Mayne Yard. There are also works required throughout the corridor between Albion and the northern portal.
 Overall staging at Mayne Yard includes but is not limited to:
 - Stage 1 and 2A – Mayne Yard North: Rail civil works, drainage, systems, bridge construction, RSS walls, RMAR pavements, crew change building, graffiti wash building and QR familiarisation period.
 - Stage 3A/3B – Mayne Yard East: Rail civil works, balloon loop removal, drainage, systems, bridge construction, shunt neck construction and retaining walls.
 - Stage 4A/4B – Mayne Neck, Breakfast Creek Tie-in, and Exhibition Stage 2: Rail civil works and systems.

Delivery of Exhibition Station works and the new third track has been designed to move construction works through as quickly as practical to avoid undue impacts on RNA operations.

- Stage 1 – O’Connell Terrace rock excavation, Western platform demolition, bridge and retaining wall construction.
- Stage 2 – Exhibition station rock excavation, earthworks, bridge and retaining wall construction, pier protection and station construction.
- Stage 3 – Eastern building demolition, earthworks, station construction and track works.

Staging in the Northern corridor area requires varying levels of corridor access including; Standard possessions - between 2019 and 2023, night works - working windows of ‘after last train’ and ‘before first train’ between 2020 and 2023 and Extended possessions - around public holidays.

Overall staging in the Northern Corridor includes but is not limited to:

- Stage 1 - Rail civil works, structural pier protection, retaining walls, drainage and track works to prepare for providing access provision to TSD for their Northern portal works.
- Stage 2 – Predominately approved rail possession based works to continue structural pier protection, formation, drainage, and track works in brownfield areas. Minor civil type works will occur including preparation of the Victoria Park feeder station.
- Stage 3 – TSD handover of Northern Corridor back to RIS – Final Tie-in to Northern Portal, implementation of final alignments from College Road to Bowen Bridge Road
- **Site Wide – Testing and Commissioning (T&C) Activities:** T&C activities will take place continually through all areas of the project – whether they are temporary activities (e.g. removals) or permanent activities (e.g. where items are installed but not yet fully operational). Detailed T&C plans will be developed to ensure Queensland Rail requirements are met and operational certainty is maintained
- **Site Wide – Construction monitoring Activities:** Construction monitoring activities ensure compliance with the requirements detailed in the C-EMP and associated sub-plans are detailed in Attachment 4

1.4 Project Works – Areas of Works

Overall the Project Works will take place across the RIS Alliance alignment.

The majority of the works will physically occur within the existing Queensland Rail corridor boundaries.

Where the proposed works cannot be undertaken within the Queensland Rail Corridor (e.g. surface water monitoring at the nearby sensitive receptors), the works will either be undertaken within public land (safe access pending) or once due notification has been provided to and access granted by relevant private stakeholders.

1.5 Project Works – Construction Methodologies

Construction methodologies are dependent on distinct elements of scope within each area of the project.

A summary of the construction methodologies is presented below.

Table 1: Summary of work packages

Area	Construction Methodologies/Staging
Enabling Works	<ul style="list-style-type: none"> • Site facility establishment • Site access establishment • PUP (water, sewer, communications) relocation and protection • Temporary public access (pedestrian or vehicle) arrangements. • Building and Structures Demolition • OHLE enabling Works • Unsuitable Material Removal
General Corridor	<div>Civils</div> <ul style="list-style-type: none"> • Clear and grub • Service protection/relocation • Topsoil stripping • Bulk earthworks (excavation, embankment) • Rock excavation and rock dowelling • Subgrade treatment • Capping • Stormwater (RCP/RCBC) • Stormwater pits • Gross pollutant traps • Subsoil drainage • RMAR • Fencing • Asphalting. <div>Track-works</div> <ul style="list-style-type: none"> • Track delivery • Track installation incl cross overs • Track welding • Track grinding. <div>Signalling</div> <ul style="list-style-type: none"> • Signal cable routes • Turnout installation • Equipment huts and cases • Signal gantries. <div>OHLE</div> <ul style="list-style-type: none"> • Foundation installation • Grading rings • Mast and cantilever distribution and assembly • Mast installation • Fixed anchor and Tensorex • Running of wires • Earthing • Registration.

Area	Construction Methodologies/Staging
	<p>Telecommunication</p> <ul style="list-style-type: none"> • Above and below ground fibre optic network • OPGW • Tunnel fit out • RMC and DRC connections.
Stations	<p>F2S and Dutton Park Stations</p> <ul style="list-style-type: none"> • OHLE enabling works • Screw pile foundations • Back-to-back platforms (precast facing panels, backfill, decks) • Side platforms (structural steel, decks) • Lift and overbridges (structural steel) • Lighting • Buildings and canopies (structural steel, sheeting) • Systems (ticketing, passenger information) • LV connections. <p>Exhibition Station</p> <ul style="list-style-type: none"> • Service relocation and protection • Rock excavation • Bridge demolition • Building demolition • Piling • Rock bolting • Form reinforce pour (bridge concrete structures) • Bridge girder and span erection • Post tensioning and grouting • Anti-throw and electrification screens • Earthing and bonding • Form reinforce pour (concrete retaining wall structures) • Form reinforce pour (deflection walls) • Form reinforce pour (track slab) • Form reinforce pour (island platform structures) • Form reinforce pour (underground plaza) • Precast track slab • Landscaping • Lighting • Canopies (structural steel, architectural sheeting) • Systems (ticketing, passenger information).
Structures	<ul style="list-style-type: none"> • Rail bridge over Breakfast and Moolabin Creek • Pier protection works for existing bridges • Footbridges • Road bridges over rail • RSS structures • Retaining walls • Pier strengthening works at O'Connell Terrace bridge • Footpath for O'Connell Terrace bridge • Track slab under O'Connell Terrace and Bowen Bridge Road bridges • QR Normanby carwash underpass • Demolition of bridges, buildings, platforms etc. • SFC feeder station base slab.

Area	Construction Methodologies/Staging
Stabling Yards	<ul style="list-style-type: none"> • Earthworks (as per general corridor) • Access roads • Buildings • Stabling facilities (driver facilities, toilets, amenities) • Sewage decant system • Walkways • Lighting • Security fencing • CCTV • Graffiti road • Driver platforms.
Feeder Station	<ul style="list-style-type: none"> • SFC and TSC installation • HV and LV cable routes • HV terminations and jointing.

1.6 Other Project Activities

The following project activities which will be delivered by UNITY will also be subject to compliance with the C-EMP however are not subject to the Coordinator's General Imposed Conditions

1.6.1 PUP Works

Through the development of the design, public utility plant (PUP) has been identified that requires relocation or replacement to enable the delivery of CRR Project infrastructure. In some instances, relocation or replacement of PUP will be required to a location outside the project boundary.

In accordance with the definition of Project Works under Schedule 4 of the Coordinator-General's Report, as the relocation or replacement will be done on behalf of a public utility provider, these works are not defined as Project Work.

Relocation and replacement of PUP may still be subject to secondary approvals which will be managed by UNITY.

1.6.2 Demolition of buildings and structures on State owned land

Through the development of the design, buildings and structures on State Owned Land has been identified that requires demolition to enable the delivery of CRR Project infrastructure.

An example of such buildings and structures includes, but is not limited to

- Mayne Yard
 - Demolition of administration and crew buildings
 - Demolition of redundant infrastructure such as radio towers
- RNA
 - Demolition of the cattle crossing bridge immediately south of O'Connell's Terrace
- Northern Corridor
 - Demolition of the QR Shed
 - Demolition of the Wagon Repair Shed
- Southern Area

- Demolition of Cope Street residential properties bordering the existing rail corridor to the east and to the south of Annerley Road
- Clapham Yard
 - Demolition of redundant buildings

In accordance with the definition of Project Works under Schedule 4 of the Coordinator-General's Report, as the demolition of this buildings and structure is in State Owned Land, these works are not defined as Project Work.

These works may still be subject to secondary approvals which will or have been obtained by UNITY prior to commencing these activities.

1.7 Environmental Objectives

UNITY's environmental management objectives for RIS include:

- Manage construction in accordance with the C-EMP and sub-plans to avoid or minimise project impacts on the environment and community
- Promote a culture of environment and sustainability awareness that empowers all personnel involved in RIS activities to make informed decisions about environmental risks, impacts and mitigation measures
- Develop, implement, and maintain environmental incident-management procedures to eliminate unauthorised environmental harm
- Design and construct RIS in a manner that is lawful and fulfil the Delivery Authority's environmental requirements
- Partner with the Delivery Authority to achieve its goal for environmental management and sustainability across the rail system.

2 Legislative and Other Requirements

2.1 Legislative Requirements

All Project Works as defined in Section 1.3, must comply with:

- The Coordinator-General Imposed Conditions
- Other relevant Commonwealth, State and Local Government Approvals such as Operational Works Development Approvals
- Relevant environmental legislation such as the *Environmental Protection Act 1994*.

2.2 Other Requirements

All Project Works must consider, be consistent with, and be delivered in general accordance with:

- The Outline Environmental Management Plan (O-EMP)
- Australian and New Zealand Standards (if not already mandated by State and Commonwealth governments)
- State, local, and other guidelines such as the *International Erosion Control Association Best Practice Erosion and Sediment Control Guidelines 2008* (IECA Guidelines)
- UNITY's ISO 14001-accredited EMS.

All Project Works must be delivered by implementing the mitigation measures identified in this C-EMP. The C-EMP has been developed by taking into consideration the legislative and other requirements.

Works that are not defined Project Works will also be delivered in general accordance with the C-EMP to ensure a consistent framework is applied to the UNITY works.

2.3 Coordinator-General Imposed Conditions

The Project Works covered by this C-EMP will be carried out generally in accordance with:

- the latest revision of the Cross River Rail Request for Project Change relevant to the RIS Scope of Works (<http://statedevelopment.qld.gov.au/coordinator-general/assessments-and-approvals/coordinated-projects/completed-projects/cross-river-rail-project/project-changes.html>); and

the latest associated drawings provided at Volume 2. The Imposed Conditions relevant to various environmental elements are either captured in the body of this C-EMP's general obligations or within the sub-plans when obligations are specific to an element.

Appendix 1 of the Change-Report contains all the Imposed Conditions for the Cross River Rail project, most of which are relevant to the RIS Alliance and the Project Works detailed in Section 1.3.

The compliance table in Attachment 3 maps out where the C-EMP addresses the Imposed Conditions.

2.4 Other Environment Planning Approvals Strategy

UNITY is also responsible for obtaining numerous planning and environmental approvals from regulatory authorities in accordance with Queensland legislation.

Where feasible, Project Works have generally been scoped to avoid the need for regulatory approvals in addition to the Coordinator-General Change Report.

Prior to works commencing, the UNITY Approvals Team ensures that all relevant approvals for the scope of works are in place and key conditions and requirements are communicated to the personnel involved in delivering the works, inclusive of the Environmental Monitor.

2.5 Sustainability and ISC

2.5.1 Imposed Conditions

There are two Imposed Conditions as part of the environmental Design Requirements (Schedule 2 of the CGCR) that also relates to the Construction Phase of the Project. Therefore, these two conditions will be managed through the implementation of the C-EMP as per the following measures.

- *Imposed Condition 7(d) – EDR - 7. Climate change and sustainability*
 - (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, programming to avoid rework or redundant work)*

During Construction Planning, the following efforts will be implemented to optimise energy efficiency during the Delivery Phase:

- Through procurement identify local suppliers and sub-contractors
- Through Construction Planning, optimise mass haul operations to minimise double handling of material
- Through Construction Planning, review staging of works and design constructability to avoid rework and redundant work
- *Imposed Condition 7(d) – EDR -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.

During Construction Planning, the following efforts will be implemented to optimise energy efficiency during the Delivery Phase:

- Through procurement identify local suppliers and sub-contractors which have identified
- Opportunities to minimise waste disposed to landfill, fuel use and use of potable water wherever possible.
- Opportunities to use recycled materials or materials which contain recycled content where fit for purpose.
- Through Construction Planning (Construction Area Plan / Workpack), identify and communicate to the delivery team opportunities to re-use site-won material (e.g. low level contaminated soils)

2.5.2 Sustainability Rating

The CRR Project is pursuing an Infrastructure Sustainability Council (ISC) Sustainability Rating.

The RIS Alliance is supporting the Project to achieve its overarching rating.

By its nature, sustainability and the ISC Rating Scheme are cross-project considerations. The ISC rating scheme is divided between Categories and Credits, some of which will be achieved through the successful implementation of the C-EMP and associated sub-plans.

The credits of particular relevance to the C-EMP are detailed in Table 2, including how each sub-plan to this C-EMP will support achievement of the target levels.

Table 2: Sustainability categories and associated ISC credits applicable to the C-EMP

Category	Credit	Relevant C-EMP Sub-plan
Energy and Carbon	Ene-1: energy and carbon monitoring reduction	Air Quality Management
	Ene-2: renewable energy	Air Quality Management
Water	Wat-1: water use monitoring and reduction	Waterways and Water Quality Management Construction Environmental Monitoring Program
	Wat-2: water saving opportunities	Waterways and Water Quality Management Construction Environmental Monitoring Program
Discharges to Air, Land and Water	Dis-1: receiving water quality	Acid Sulfate Soil Management Erosion and Sediment Control Management Waterways and Water Quality Management
	Dis-2: noise	Noise and Vibration Management
	Dis-3: vibration	Noise and Vibration Management
	Dis-4: air quality	Air Quality Management
Land	Lan-1: previous land use	Land Management
	Lan-2: conservation of onsite resources	Land Management
	Lan-3: contamination and remediation	Land Management
Waste	Was-1: waste management	Land Management Waste Management
	Was-2: diversion from landfill	Waste Management
Ecology	Eco-1: ecological value	Acid Sulfate Soil Management Biosecurity Management Contaminated Land Management Landscape and Rehabilitation Management Nature Conservation Management
Community Health, Well-being, and Safety	Hea-1: community health and well-being	Air Quality Management Noise and Vibration Management
Natural and Cultural Heritage	Her-1: heritage assessment and management	Indigenous Cultural Heritage Management Non Indigenous Cultural Heritage Management
	Her-2: monitoring and management of heritage	Indigenous Cultural Heritage Management Non Indigenous Cultural Heritage Management
Stakeholder Participation	Sta-1: stakeholder management strategy	Indigenous Cultural Heritage Management Non Indigenous Cultural Heritage Management Community Engagement

Category	Credit	Relevant C-EMP Sub-plan
	Sta-4: addressing community concerns	Air Quality Management Indigenous Cultural Heritage Management Noise and Vibration management Non Indigenous Cultural Heritage Management Community Engagement
Urban and Landscape Design	Urb-1: urban design	Landscape and Rehabilitation Management
	Urb-2: implementation	Landscape and Rehabilitation Management

Further details on how the successful delivery of the ISC rating is proposed to be managed are presented in UNITY's Sustainability Management Plan (RIS-UNA-SUS-MPL-00283).

3 Environmental Management Approach

UNITY's Project Management System (PMS) guides how we manage the RIS Works to meet the Delivery Authority's and other stakeholders' requirements. It will foster an integrated and standardised approach across all operations and functions and ensure that relevant third-party certifications are maintained.

The Alliance Management Plan contains information on the PMS.

The C-EMP is based on the requirements of the PMS and has been specifically tailored to ensure compliance with the Coordinator-General, the Delivery Authority and Queensland Rail requirements.

3.1 Environmental Management System Documentation

The C-EMP is the head document in UNITY's Environmental Management System (EMS) and is supported by sub-plans that provide specific details in relation to environmental aspects, and their relevant management requirements for the duration of construction and commissioning.

Figure 1 below provides a diagrammatical representation of UNITY's EMS documentation and how it integrates with construction planning.

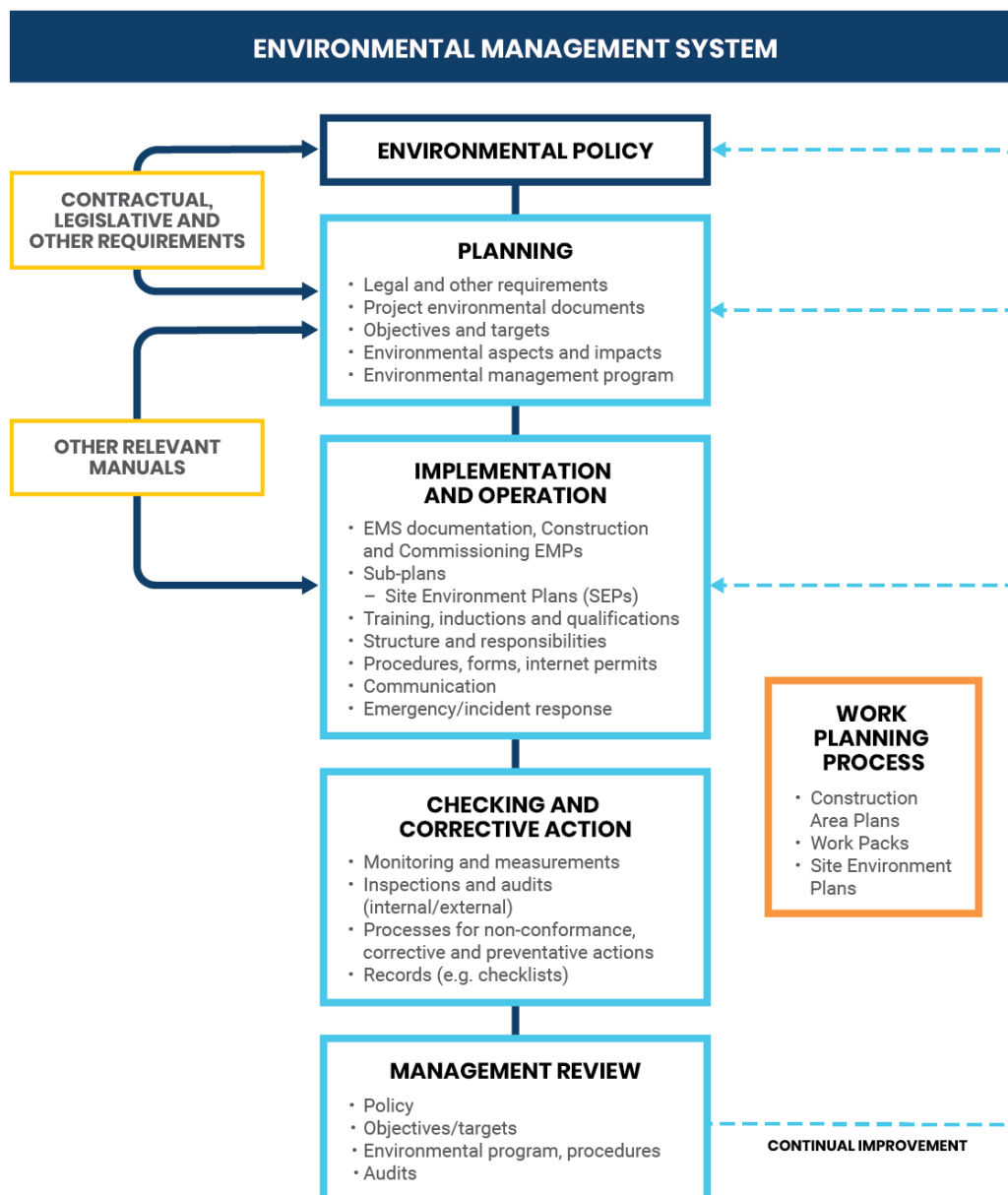


Figure 1: Integration of technical environmental management requirements into construction work planning process

3.2 Risk Assessment

UNITY's work planning process requires Construction Area Plans (CAPs), Work Packs and associated risk assessments to be developed for each specific project area. The Construction Management Plan (CMP) details how this process will be managed in accordance with the PMS.

This multidisciplinary planning process ensures that environmental, health, safety, and quality risks, among others, are:

- Adequately identified in relation to specific scope
- Appropriate mitigations measures, in accordance with this C-EMP, are incorporated into the works processes.

3.2.1 Construction Area Plans

CAPs are initial work planning documents. The relevant environmental management and monitoring requirements detailed within the C-EMP sub-plans are referenced in the CAPs to ensure environmental and approval requirements are implemented throughout planning and execution of RIS construction activities.

CAPs describe methodology, resources, plant, and equipment, risks, and other specific requirements. CAPs are developed in consultations with the key discipline leads on the project.

CAP development considers:

- Legislative requirements
- The most efficient and effective methodology for the work
- Risks and opportunities related to the methodology
- Effects on the environment, community, rail, and traffic
- Specification requirements and limitations
- Possible effects of location, timing, and other outside influences (including weather, service, or government authorities).

CAPs cover the following:

- Description and scope of works, including proposed methodology and temporary works
- Assumptions and constraints, including safety and health, design assumptions, PUP, environment, sustainability, community, and traffic
- Technical data
- Plant and materials required
- Construction sequence
- Hazards and risks
- Interfaces with other construction activities.

3.2.2 Work Packs

Work Packs are the primary tool to develop activity or task-specific management requirements, which include environment, as well as discipline management needs for safety, health, and quality.

Work Packs are used to communicate the critical environmental requirements to personnel and subcontractors who are accountable for implementing these requirements on the ground throughout the Project Works.

The Work Packs provide:

- Direction and guidance on construction methods that have been risk-assessed from a safety and environmental perspective
- Specific management controls to reduce the potential risk of perceived environmental hazards
- Specific management controls required to be implemented as a result of the outcomes of predictive studies (e.g. predictive noise modelling). Indeed, where predictive studies indicate that impacts cannot be adequately managed with already established mitigation measures, specific mitigation measures must be developed in consultation with Directly Affected Persons (DAP).
- Inspection and monitoring requirements for perceived environmental hazards
- Triggers for specific management responses, such as adjusting works based on monitoring exceedances, complaints, or imminent rainfall
- Applicable internal permits to be approved prior to high-risk activities (such as permits to dewater).

UNITY will be working closely with all key internal stakeholder and Alliance members to ensure they are adequately briefed on the upcoming works. The documents such as the CAPs, WPs and SEPs will provide the broader Alliance team members the assurance the works have been adequately planned and will be managed both effectively and consistently.

The Environmental Monitor will be given access to the WPs and SEPs for review and comments prior to works commencing to ensure the adequate level of management measures are cascaded from this C-EMP down to specific works.

3.2.3 Work Method Statements and Subcontractor Risk

Where components of the program of works are delivered by subcontractors to support the Alliance, the subcontractors will be briefed on the outcomes of the Construction Area and Work Pack Risk Assessments.

Subcontractors are responsible for developing task specific safe works methods statements (i.e. SWMS or JSEAs) that incorporate, as a minimum, the known hazards, risk assessment and controls identified in the risk assessments. The subcontractor's documentation will be reviewed and approved prior to the subcontractor mobilising to site by the UNITY environmental team and the relevant supervisor, as a minimum.

3.2.4 Site Environment Plans (SEPs)

SEPs are developed to supplement this plan, where they add value in supporting the CAPs, Work Packs and WMS. They provide a visual representation of the environmental constraints and controls to be implemented on the RIS Project.

When SEPs are warranted, they communicate to personnel and subcontractors the minimum environmental management requirements and provide a solid understanding of the sensitivities around work zones and the controls they are accountable for installing and maintaining throughout their activities. Importantly, SEPs identify critical environmental risks and controls including:

- Disturbance limits
- Exclusion zones, such as tree-protection zones, heritage areas, etc.
- Installation requirements for erosion and sediment controls measures
- Maintenance/refuelling zones where relevant
- Sensitive Places such as places of residents and businesses
- Environmental monitoring locations
- Known contamination/potential acid sulfate soils (PASS) locations and stockpiling locations.

UNITY will progressively review SEPs as the works progress to ensure they continue to be adequate for the scope of works they cover. SEPs will be decommissioned following completion of works.

3.3 General Environmental Management

UNITY has developed specific sub-plans to address key elements of the CG's Conditions of Approval and the O-EMP commitments. Each C-EMP sub-plan provides a range of proposed measures to:

- Develop methods and controls to avoid, minimise or provide alternatives to activities, so to not cause environmental harm
- Control the occurrence of identified environmental impacts
- Respect and safeguard the local community
- Satisfy the environmental requirements of the State and relevant agencies.

The relationships between the CG Conditions of Approval and the O-EMP are detailed in Figure 2.

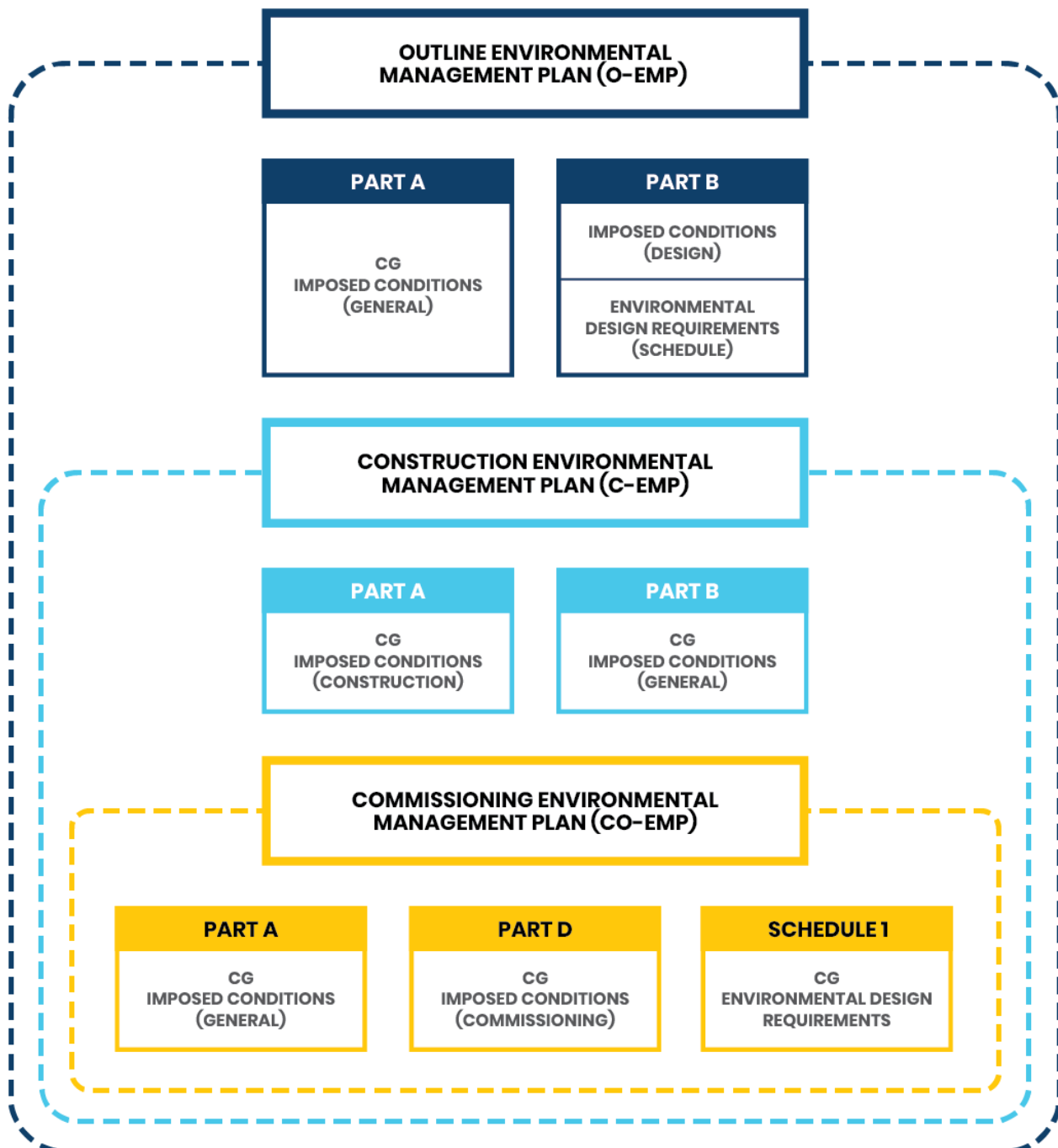


Figure 2: Relationships between plans and the CG's Imposed Conditions

3.3.1 C-EMP Structure

The O-EMP requires the development of 20 sub-plans to the C-EMP.

The C-EMP implementation is supported by the implementation of other key head plans, such as the Construction Management Plan, the Traffic Management Plan and the Workplace Health and safety Management Plan, among others.

These head plans provide additional details on mitigation measures pertinent to the works which will be incorporated in our CAPs and Work Packs.

On this basis and the nature of the Project Works detailed in Sections 1.2 to 1.5, certain subplans listed in the final O-EMP have either been combined or further separated to provide a consistent approach across the Project.

Table 3 summarises the C-EMP subplans that have been developed to address the imposed conditions, or as required by the approved O-EMP, and that will be used to inform the detailed content of the CAPs and Work Packs.

Table 3: Environmental elements sub-plans included in the C-EMP

Mandatory Sub-Plan as per the O-EMP	Mandatory Sub-Plan as per the CG report – Condition 2b(v)	C-EMP Subplan reference
Community and Stakeholder Engagement Plan	Community and Stakeholder Engagement Plan	Community Engagement Plan
Acid Sulfate Soils Management Sub-Plan	Not nominated in CG conditions	Acid Sulfate Soils Management Sub-Plan
Air Quality Management Sub-Plan	Air Quality Management Plan	Air Quality Management Sub-Plan
Nature Conservation Sub-Plan (Pest and Weeds element)	Not nominated in CG conditions	Biosecurity Management Sub-Plan
Cultural Heritage Management Plan	Indigenous Cultural Heritage Management Plan	Indigenous Cultural Heritage Management Sub-Plan
Non Indigenous Cultural Heritage Management Plan	Non Indigenous Cultural Heritage Management Plan	Non Indigenous Cultural Heritage Management Sub-Plan
Erosion and Sediment Control Sub-Plan	Erosion and Sediment Control Sub-Plan	Erosion and Sediment Control Sub-Plan
Land Management Sub-Plan	Nominated in CG conditions as Settlement Management Plan	Land Management Sub-Plan
Contaminated Land Management Plan	Not nominated in CG conditions	Land Management Sub-Plan
Nature Conservation Management Sub-Plan	Nature Conservation Management Sub-Plan	Nature Conservation Management Sub-Plan
Noise and Vibration Management Sub-Plan	Noise and Vibration Management Sub-Plan	Noise and Vibration Management Sub-Plan
	Property Damage Sub Plan	Property Damage Mitigation Sub-Plan
Waste Management Sub-Plan	Not nominated by CG	Waste Management Sub-Plan
Water Quality Monitoring Sub-Plan	Water Quality Monitoring Plan	Waterways and Water Quality Management Sub-Plan
Construction Worksite Management Plan	Construction Worksite Management Plan	Construction Activities Management Sub-Plan

Mandatory Sub-Plan as per the O-EMP	Mandatory Sub-Plan as per the CG report – Condition 2b(v)	C-EMP Subplan reference
Construction Traffic Management Plan	Construction Traffic Management Plan	Construction Activities Management Sub-Plan
Construction Vehicle Management Plan	Construction Vehicle Management Plan	Construction Activities Management Sub-Plan
Spoil Placement Management Plan	Spoil Placement Management Plan	Construction Activities Management Sub-Plan
Visual Amenity and Lighting Management Plan	Not nominated in CG conditions	Construction Activities Management Sub-Plan
Social Amenity Management Plan	Not nominated in CG conditions	Landscape and Rehabilitation Sub-Plan Condition 20 of the CG Change Report is also addressed in the CEP, Nature Conservation and Heritage sub-plans.
Hazardous and Risk Management Plan	Not nominated in CG conditions	No specific sub-plan developed Hazardous chemicals and substances are addressed in the Land Management Plan and Waste Management Plan Emergency response is mentioned in the C-EMP main body and appropriate references are made to the Emergency Response Plan where environmental and safety emergencies are addressed.
Climate Change and Sustainability Plan	Not nominated in CG conditions	No specific sub-plan developed Correlation between Sustainability matters relevant to Construction are incorporated in Section 2.5 and the relevant C-EMP sub-plans NGER is addressed in the Air Quality Management Sub-Plan Waste is addressed in the Waste Management Sub-Plan. Section 2.5.1 details how UNITY will comply with Imposed design requirements that have an overlap with Construction Planning and Execution
Water Quality Management Plan	Flood Management Plan Imposed Condition 17(b)	Flood Management Plan

3.3.2 Sub-Plans Structure

Each sub-plan has been broken down into key components, as described in the table below:

Table 4: Environmental sub-plans structure

Component	Details	Effect
Environmental Outcome(s)	Required outcome of the project for the environmental element as per: <ul style="list-style-type: none"> CG Conditions O-EMP. 	<ul style="list-style-type: none"> Unless otherwise agreed with the relevant authorities, results will be achieved through: <ul style="list-style-type: none"> Successful implementation of the mitigation measures Meeting the relevant performance criteria expectation.
Relevant Area	Area(s) along the RIS alignment where construction requirements, and as such, environmental outcomes, are applicable.	<ul style="list-style-type: none"> Informs

Component	Details	Effect
Relevant Work / Activities	Key construction activities at relevant areas for which the environmental outcomes, performance criteria and associated mitigation measures are relevant, insofar as they relate to the environmental or social aspects addressed in the sub-plan.	<ul style="list-style-type: none"> • Informs
Performance Criteria	<ul style="list-style-type: none"> • Measurable goals or indicators to demonstrate that environmental outcomes have been met • Performance criteria generally consistent with the CG Conditions and O-EMP, specific to each environmental outcome to be met • Quantitative performance criteria, where feasible, to ensure they are measurable (e.g. specific monitoring will be implemented to monitor performance against the set criteria) • Where quantitative performance criteria cannot be set, the qualitative criteria are supported by mitigation measures, as deemed relevant. 	<ul style="list-style-type: none"> • Mandatory if no mitigation measures • When performance criteria cannot be achieved, they serve as triggers for mitigation measures to be implemented.
Sustainability	Relevant ISC sustainability credits and requirements applicable during the construction phase of the project.	<ul style="list-style-type: none"> • Mandatory once approved for implementation • Details are provided in the Sustainability Management Plan.
Mitigation Measure	<p>Mitigation measures are either:</p> <ul style="list-style-type: none"> • Measures to support and satisfy the performance criteria • Actions agreed with DAP, where required, in consultation with the Environmental Monitor and the Community Relations Monitor (where applicable) to achieve the environmental outcome of the element. <p>The mitigations measures are endorsed by the Environmental Monitor in consultation with the Delivery Authority.</p>	<ul style="list-style-type: none"> • Must be implemented where relevant and must be agreed and endorsed prior to the relevant works commencing and/or the design being finalised • Where mitigation measures are developed and agreed in consultation with DAPs, in addition to or as replacement for the mitigation measures already endorsed as part of the plan, the additional mitigation measures must be entered in the Mitigation Measures Register, which will remain confidential and will be maintained by the Environmental Monitor.
Monitoring	<p>Monitoring will determine:</p> <ul style="list-style-type: none"> • Satisfaction of the performance criteria • Implementation and effectiveness of mitigation measures. <p>Monitoring will be undertaken at a frequency sufficient to demonstrate the robustness of the assurance program and suitable to identify compliance issues.</p>	<ul style="list-style-type: none"> • Mandatory once endorsed • Monitoring will either be conducted by a Suitably Qualified Person (SQP) embedded in the UNITY team or an independent SQP, where UNITY cannot resource the monitoring effort internally • Monitoring will be of suitable intensity and frequency to provide sufficient assurance the requirements have been met • Attachment 4 provides a summary of the Construction Environmental Monitoring Program.

Component	Details	Effect
Reporting	<p>UNITY will prepare a monthly report in accordance with the CG Change Report requirements that summarises:</p> <ul style="list-style-type: none"> Construction activities undertaken during the month Results of the monitoring activities for air, noise, vibration, and water quality, and where required, interpretation of the results 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 Details of complaints, including the number of complaints, description of issues, responses, and corrective actions. 	<p>The mandatory monthly report will be:</p> <ul style="list-style-type: none"> Reviewed and verified by the Environmental Monitor Reviewed by the Community Relations Monitor Published on the project's website.
Corrective Action	<p>Action to be developed and implemented for monitoring detects when:</p> <ul style="list-style-type: none"> Performance criteria are not being achieved Agreed mitigations measures are not being implemented. 	<p>UNITY must either/or:</p> <ul style="list-style-type: none"> Implement the agreed mitigation measures Agree to alternative mitigation measures to achieve the environmental outcome and/or the performance criteria. <p>Where relevant, alternative mitigation measures must be agreed with the DAP in consultation with the Environmental Monitor, and where relevant, the Community Relations Monitor.</p>
Auditing	Any additional internal auditing requirements that may be triggered above and beyond the review and auditing processes detailed in Section 7.	<ul style="list-style-type: none"> Mandatory To be undertaken by UNITY in consultation with the Environmental Monitor and Delivery Authority.

3.4 Environmental Management Responsibilities

UNITY will collaborate with the Delivery Authority to deliver RIS with the least possible impact on the environment, local communities, and businesses. Responsibilities for project environmental management are detailed below:

Table 5: Key roles in environmental management

Entity	Role and Responsibility
Coordinator-General (CG)	Administers the <i>State Development and Public Works Organisation Act 1971</i> .
Delivery Authority	Overarching proponent ultimately accountable and responsible for key activities of the project until operations commence and for implementing and complying with the CG's Conditions of Approval.
UNITY	<p>Delivery partner to which the accountability and responsibility otherwise assigned to the Delivery Authority have been delegated:</p> <ul style="list-style-type: none"> For the RIS Works To the extent agreed by and with Delivery Authority <p>UNITY will be responsible for implementing and complying with the CG's Conditions of Approval where relevant and this C-EMP.</p>
QR	<p>Rail Infrastructure Manager</p> <p>A person who has effective management and control of rail infrastructure or proposed rail infrastructure, whether or not the person –</p> <p>(a) owns or will own the rail infrastructure; or</p> <p>(b) has or will have a statutory or contractual right to use the rail infrastructure or to control, or provide, access to it.</p>

Entity	Role and Responsibility
TMR	Nominated entity with jurisdiction for each of the CG's Conditions of Approval as per Schedule 3 of the CG's Change Report.
BCC	Assessment manager for Prescribed Tidal Works approvals Interests in land, local roads and other urban infrastructure, and natural assets Local Roads Manager Provides input to urban design measures, EMP and worksite rehabilitation.
Environmental Monitor	An independent entity engaged by the Delivery Authority and Approved by the Coordinator-General to comply with the CG's conditions of approvals.
Community Relations Monitor	An independent entity engaged by the Delivery Authority to comply with the CG's conditions of approvals.
Subcontractor	<p>UNITY may delegate environmental requirements and responsibilities to subcontractors. UNITY will remain responsible for the compliance with the endorsed C-EMP</p> <p>All subcontractors are required to attend the General Site Induction where the requirements and obligations of the C-EMP will be communicated at a site and delivery level</p> <p>All subcontractors will be required to comply with the C-EMP and develop relevant documentation, such as WMS, consistent with the C-EMP, as required, for UNITY review and endorsement.</p>

4 Compliance

The compliance table in Attachment 3 maps where the C-EMP and its sub-plans address the Imposed Conditions.

4.1 Overarching CG Conditions

The Coordinator-General has imposed general conditions that are applicable to the whole of the RIS Alliance footprint, irrespective of the location, type, duration, or intensity of the Project Works.

They encompass the requirement to develop a suitable C-EMP consistent with the CG conditions and the O-EMP, and the requirements to undertake the Project Works within Authorised Hours of Work.

4.1.1 C-EMP Development

The CG has imposed the following conditions (refer to Table 6) for the RIS Works and development of a C-EMP:

Table 6: CG's conditions – C-EMP

CG Condition	Details
Appendix 1, Part A, Condition 1(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; (v) the Cross River Rail Request for Project Change dated April August 20202019 ;(vi) the Cross River Rail request for Project Change dated May 2020; (ix) the Cross River Rail request for Project Change dated April 2019;
Appendix 1, Part A, Condition 1(b)	The proponent must notify the Coordinator-General and all nominated entities in Schedule 3 in writing of the commencement of Project Works and the commencement of the commissioning and operational phases of each 'construction site' at least 20 BD prior to the relevant commencement date.
Appendix 1, Part C, Condition 4(a)	Prior to the commencement of project works, 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.
Appendix 1, Part C, Condition 4(b)	The endorsed Construction Environmental Management Plan must be submitted to the Coordinator-General at least 20 BDs prior to the commencement of Relevant Project Works.

CG Condition	Details
Appendix 1, Part C, Condition 4(c)	<p>The Construction Environmental Management Plan must:</p> <ul style="list-style-type: none"> (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 (DAP) (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 DAP 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 Outline EMP.
Appendix 1, Part C, Condition 4(d)	The Construction Environmental Management Plan must be implemented for the duration of Relevant Project Work.
Appendix 1, Part C, Condition 4(e)	Relevant Project Work is authorised if it is undertaken in accordance with the Construction Environmental Management Plan.
Appendix 1, Part C, Condition 4(f)	The Construction Environmental Management Plan must be publicly available on the project website for the duration of the construction phase.
Appendix 1, Part C, Condition 4(g)	<p>The Construction Environmental Management Plan may be updated</p> <ul style="list-style-type: none"> (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.
Appendix 1, Part C, Condition 4(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.

4.1.2 Pre-Works Notification

Prior to the Relevant Project Works Commencing, UNITY will provide all relevant stakeholders with the necessary notifications, as detailed in Table 7 below.

Publication of the C-EMP on the Project Website provides assurance that:

- The Environmental Monitor is informed of the C-EMP content
- The Environmental Monitor has reviewed and endorsed the C-EMP as generally in accordance with the Imposed Conditions and the O-EMP
- All due notification processes have been followed.

Table 7: Pre-works notification requirements

Program	Notification by UNITY	Notification by the Delivery Authority
Prior to the relevant 'Project Works' commencing	25 BD prior to the works – the endorsed plan will be submitted to Delivery Authority in a format suitable for uploading to the project website and submitted in writing to the CG and all nominated entities in Schedule 2 of the CG's Conditions of Approval	20 BD prior to the works – notify the CG and all nominated entities in Schedule 2 of the CG's Conditions of Approval as per the timeframes nominated by the CG in accordance with Appendix 1, Part A, Condition 1.(b) of the CG's Change Report

4.1.3 Hours of Work

The CG has imposed specific working hours to ensure that project works will not adversely impact the community. The working hours are irrespective of the scale of works. However, the nature of the works drives the allowable working hours.

The working hours and associated exemptions (e.g. emergencies) are detailed in Appendix 1, Part C, Imposed Condition 10 of the Change report.

Table 9 summarises this condition.

4.1.3.1 Standard Working Hours

As a general rule, Project Works will be authorised to proceed Monday to Saturday 6.30 am to 6.30 pm.

These hours are deemed "Standard Working Hours"

4.1.3.2 Non Standard Working Hours / Out of Hours

Project works proposed to occur outside of the Standard Working Hours and to be undertaken within the working hours detailed in Table 9 will be authorised to proceed under an Out of Hours Works permitting Process when undertaken in accordance with this C-EMP and its sub-plans as per Imposed Condition 10(d).

Project works proposed to occur outside of the Standard Working Hours and outside the working hours detailed in Table 9 will require additional written confirmation from DTMR as per Imposed Condition 10(e).

Standard Work Hours are defined as follows:

- Monday to Saturday – 6.30am to 6.30pm
- Excludes Public Holidays

Out of Hours are defined as follows

- Monday to Saturday – 6.30pm to 6.30am
- Sundays
- Public Holidays

They include

- Project Works where predictive modelling / assessment, in particular Noise and Vibration identifies that the proposed Project Works will not exceed the lower noise and / or vibration (Human Comfort) goals. In this instance, Project Works will be authorised to proceed uninterrupted 24 hours a day, 7 days a week as they will be deemed Managed Works.
- Where works are either proposed to occur under an Approved Possession or as Extended Works,

The Out of Hours Works Permitting process requires justification and approval for Out of Hours works from the Stakeholder & Community Relations Manager, the Environment Manager, and the Construction Manager (or delegate) up to four (4) weeks before the works.

When seeking permission to undertake works during non-standard hours, the Out of Hours Works Permit requires a compliance assessment and confirmation that the requirement to implement noise mitigation and/or noise monitoring has been considered.

The decision to implement noise mitigation measures and/or to undertake noise monitoring during construction activities that occur during non-standard hours is based on a risk management approach. The purpose of the risk management approach is to minimise the disruption and disturbance to the community.

The risk assessment will consider factors that might influence the noise impact at receptors including:

- The loudness and character of the construction equipment's noise emissions (such as tonality and impulsiveness)
- The size and type of the construction equipment's vibration emissions
- The proximity of noise or vibration generating equipment to Sensitive Places
- The sensitivity of individual receptors near the works based on the community consultation knowledge database
- The hours when the noisy activity is likely to occur.

The type and extent of noise and/ or vibration mitigation controls to be implemented on site will be based on the results of the risk assessment.

More details on management, monitoring, consultation, and additional approvals processes are presented in the Noise and Vibration Sub-Plan.

4.1.3.3 Typical Out of Hours Project Works

Project Works that require to occur outside of standard hours will typically be

- within the Queensland Rail corridor are regulated by Queensland Rail's Scheduled Corridor Access System (SCAS)
- other possessions under a Possession Bid (e.g. night works occurring after Last train and before first train) which schedules closures of the railway for specific times and durations.
- Activities within road reserve

This system is outside of Unity's control and the time period in which works may be undertaken is strictly enforced. Consequently, it is necessary to work continuously throughout the SCAS allowable time periods, that is over the entire weekend during the day, evening, and night.

Other Construction activities and corresponding justification that may need to be undertaken during non-standard hours are described in Table 8.

Table 8: Construction activities likely to be required outside standard hours

Activity	Explanation
Concrete pours	Cooler temperatures required for curing of concrete in accordance with Technical requirements
Bridges: Delivery (and possibly erection) of deck unit and Sub and Super Structures	Access may require delivery through police escort and crossing of live lanes of traffic. Required to be undertaken outside of peak times.
Piling rig, oversized equipment mobilisation and demobilisation	Access may require delivery through police escort and crossing of live lanes of traffic. Required to be undertaken outside of peak times.
Rail shutdown works and associated supporting deliveries and haulage	To minimise disruption of railway operations

Activity	Explanation
<ul style="list-style-type: none"> - Establishment of work areas and access points - Line marking - Underground Utilities relocations within road reserves / roads 	<p>Traffic control is required to stop traffic.</p> <p>Works are proposed at night to minimise disturbance to traffic</p>
<p>Substation delivery</p> <p>Prefabricated elements delivery (e.g. Stations Buildings)</p>	<p>To suit any abnormal load restrictions</p> <p>Minimise temporary land requirements for temporary storage</p>
Works within a Road Reserve	To minimise disruption to traffic and to provide a safer working environment

Table 9: CG's Conditions – working hours

Worksites and Associated UNITY Activities	Surface Works – Standard Hours	Extended Hours ¹ (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 (<i>Project work for which either the predicted or monitored impacts meet the performance criteria at a Sensitive Place</i>)	Spoil Haulage and Materials/Equipment Delivery (excluding concrete deliveries)	Works Carried Out in an Emergency (Condition 10(c))
Mayne Railway Yard and Mayne Area All works excluding blasting	Monday to Saturday 6.30am–6.30pm	Approved rail possession	Up to 24 hours per day, for the duration of the possession	24 hours 7 days	24 hours 7 days	24 hours 7 days
		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 that require continuous construction support, such as continuous concrete pours, pipejacking or other forms of ground support necessary to avoid a failure or construction incident	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			
Northern Portal (between Exhibition Station and Northern Portal, excluding Exhibition Station) All works excluding blasting	Monday to Saturday 6.30am–6.30pm	Approved rail possession	Up to 24 hours per day, for the duration of the possession	24 hours 7 days	Monday to Friday 6.30am–10.00pm Saturday 6.30am – 6.30pm	24 hours 7 days
		Project Works in a road or a busway 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 busway authority, or otherwise, Monday to Friday 6:30pm – 10:00pm			
		Project Works that require continuous construction support, such as continuous concrete pours, pipejacking or other forms of ground support necessary to avoid a failure or construction incident	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			

¹ Extended Hours Works may only be undertaken subject to compliance with a specific Construction Environmental Management Plan sub-plan in accordance with Condition 4

Worksites and Associated UNITY Activities	Surface Works – Standard Hours	Extended Hours ¹ (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 (<i>Project work for which either the predicted or monitored impacts meet the performance criteria at a Sensitive Place</i>)	Spoil Haulage and Materials/Equipment Delivery (excluding concrete deliveries)	Works Carried Out in an Emergency (Condition 10(c))
Exhibition Station F2S Stations (including Moorooka) All works excluding blasting	Monday to Saturday 6.30am– 6.30pm	Approved rail possession	Up to 24 hours per day, for the duration of the possession	24 hours 7 days	Monday to Saturday 6.30am – 6.30pm	24 hours 7 days
		Project Works in a road or a busway 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 busway authority, or otherwise, Monday to Friday 6:30pm – 10:00pm			
		Project Works that require continuous construction support, such as continuous concrete pours, pipejacking or other forms of ground support necessary to avoid a failure or construction incident	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			
Clapham Yard (excluding Moorooka Station) All works excluding blasting	Monday to Saturday 6.30am– 6.30pm	For any approved rail possession for the Cross River Rail project	Up to 24 hours per day, for the duration of the possession.	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. 240,000m3) For other spoil haulage and materials equipment delivery: Monday - Saturday 6:30am – 6:30pm	24 hours 7 days
		Project Works that require continuous construction support, such as continuous concrete pours, pipejacking or other forms of ground support necessary to avoid a failure or construction incident	Monday to Friday 6:30pm – 10:00pm			
		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			
Dutton Park Railway station	Monday to Saturday 6.30am– 6.30pm	Project Works that require continuous construction support, such as continuous concrete pours, pipejacking 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	24 hours 7 days
		For approved rail possessions	Up to 24 hours per day, for the duration of the possession			

Worksites and Associated UNITY Activities	Surface Works – Standard Hours	Extended Hours ¹ (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 (<i>Project work for which either the predicted or monitored impacts meet the performance criteria at a Sensitive Place</i>)	Spoil Haulage and Materials/Equipment Delivery (excluding concrete deliveries)	Works Carried Out in an Emergency (Condition 10(c))
		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			
Southern portal	Monday to Saturday 6.30am– 6.30pm	Project Works that require continuous construction support, such as continuous concrete pours, pipejacking 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	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	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			
Blasting	7.30am–4.30pm Monday to Saturday, and not on Sundays or public holidays PRIOR TO BLASTING – AT LEAST 48 HOURS's NOTICE must be provided to persons who may be adversely affected	Currently not approved unless works are deemed to meet the requirements of condition 10(d)		Currently not approved unless works are deemed to meet the requirements of managed work If they do – 24 hours/7 days	As per the applicable site requirement	24 hours 7 days

4.2 O-EMP

The C-EMP has been developed using the approved O-EMP (December 2018) to inform the performance criteria and mitigations measures detailed in each sub-plan.

4.3 Monitoring, Inspections, Reporting, Review, Audit

A key element to UNITY's EMS is a robust compliance regime based on the founding principles of ISO14001.

This includes the development of a Monitoring, Inspections, Reporting, Review, Audit (MIRRA) Schedule consistent with the requirements of the CG Conditions and OEMP.

The Monitoring and Inspection regime is detailed in Attachment 4.

The Auditing and Review regime is detailed in Section 7.

The Reporting regime is detailed in Section 8.2.

5 Inductions, Training and Awareness

5.1 Inductions

All RIS Alliance project personnel and contractors are required to undertake a Project induction.

This induction will incorporate project-specific environmental-management awareness material, including:

- Personal accountabilities and duties under the *Environmental Protection Act 1994* and other relevant laws
- RIS-specific sensitivities including but not limited to:
 - Air quality
 - Noise and vibration
 - Contaminated land management
 - Water management and erosion and sediment controls
 - Vegetation management
 - Community
 - Heritage
- Personal responsibilities for implementing mitigation measures under the C-EMP
- Incident response, including responsibilities and notification requirements
- Internal and external communication processes, including dealing with public complaints
- Cultural heritage management requirements, including training, mitigation, and awareness, as outlined in the Cultural Heritage Management Sub-Plan.

5.2 Training

Training of project staff is in accordance with the Training Needs Analysis (TNA) which identifies:

- Key environmental training to be delivered and implemented
- Key personnel or disciplines required to undertake the training
- Key personnel or disciplines for whom the training is recommended.

UNITY will deliver project-specific environmental training and awareness at toolbox talks and/or pre-start meetings, including:

- General management requirements in relation to RIS Project activities
- Focused/specific management requirements in relation to high-risk project activities
- Periodic (refresher or in response to high-risk project activities) environmental training, which will ensure personnel are reminded of their management responsibilities and made aware of any changes to mitigation measures and/or monitoring
- Specific mitigation measures and approval conditions
- Appropriate environmental incident response, including responsibilities and notification requirements.

Induction and training will include relevant environmental aspect requirements, such as:

- Project-specific internal environmental permitting
- Erosion and sediment control measures, including installation, maintenance, and monitoring

- Water quality management, particularly dewatering activities
- Noise and vibration management measures, including unnecessary revving of engines, unnecessary engine braking, piling activities and generally exercising due courtesy to local residents
- Fauna management requirements
- Contaminated land and PASS identification and management measures
- Weed and pest management measures
- Hazardous materials and waste management needs
- Emergency and spill-response training execution, including:
 - Correct use of spill kits
 - Correct handling of materials
 - Measures to minimise exposure to hazardous materials
 - All staff involved in works near or above water must be trained in specific spill response procedures
- Records of inductions and training is maintained on the project, including:
 - Names of personnel being inducted or receiving training
 - Date of attendance
 - Name of personnel delivering the induction/training
 - Evidence that the personnel being inducted or receiving training has understood the content by way of questionnaire and signing the induction/training register.

6 Incident, Non-Compliance, and Complaints Management

6.1 Incident Classification

Environmental incidents will be classified in accordance with the event matrices presented Attachment 5, Attachment 6. Incident Management

6.1.1 Incident Response

The immediate response to all incidents is to make the area safe and undertake measures to prevent further environmental harm. An assessment will be made in consultation with the Environment Manager to ensure that responses do not result in further harm.

Where an incident is identified as an environmental emergency requiring the implementation of emergency response, UNITY will enact the emergency response protocols detailed in the Emergency Response Plan.

Environmental emergencies include events such as significant loss of containment and flooding that may present a risk to human health, property and/or the receiving natural environment.

6.1.2 Notification and Reporting

Incident notification and reporting will be undertaken as per Section 8.2. Environmental Incidents. Incidents will be reported to regulators in accordance with the requirements of Local, State and Federal regulations.

Further details are provided in the Environmental Events Reporting, Escalation, and Investigation Procedure (RIS-UNA-DEL-PRC-02016).

6.1.3 Preserve the Incident Scene

Scenes of high-level environmental incidents will be preserved until the incident investigation team has collected relevant data and evidence (see below).

6.1.4 Investigation

All incidents will be investigated according to UNITY's procedures. The level of investigation required will depend on the incident classification. Corrective actions, including those required to help prevent future incident occurrences, will be a key outcome of incident investigations.

Selection of the investigation team will depend on severity of the incident and availability of experienced personnel. However, the investigation team will require a mix of both operational and safety and environment personnel.

The following should be considered when selecting an investigation team:

- Statutory requirements
- UNITY and Delivery Authority corporate requirements
- Technical specialists with an understanding of the work process
- Administrative support
- Mix of skills and experience
- Potential conflict of interest for any proposed member.

6.1.5 Corrective and Preventative Actions

Following an incident, corrective and preventive actions will be identified, assigned to the appropriate person/s, and closed out according to set timeframes. Timeframes will be set to ensure damage incurred is rectified and any chance of recurrence is eliminated as soon as practical. All corrective actions will include reference to the relevant incident record for ease of tracking.

6.2 Non-Compliances

Management of non-compliances will follow a similar (if not the same) process as for incident management. While the outcome of a non-compliance may not carry the same severity as an incident, the non-compliance may represent potential for a future serious incident, if not addressed properly.

The Proponent has developed a Coordinator-General Imposed Conditions Compliance Assurance Framework (Rev 00 – 12 August 2021). The purpose of this document is to describe the key roles and responsibilities of the Cross River Rail Delivery Authority, the Environmental Monitor, the Community Relations Monitor, the Department of Transport and Main Roads and the Coordinator-General in providing assurance regarding compliance with the Coordinator-General's Cross River Rail project-wide Imposed Conditions.

Appendix A of this document details the non-compliance event notification and reporting process. It is reproduced below.

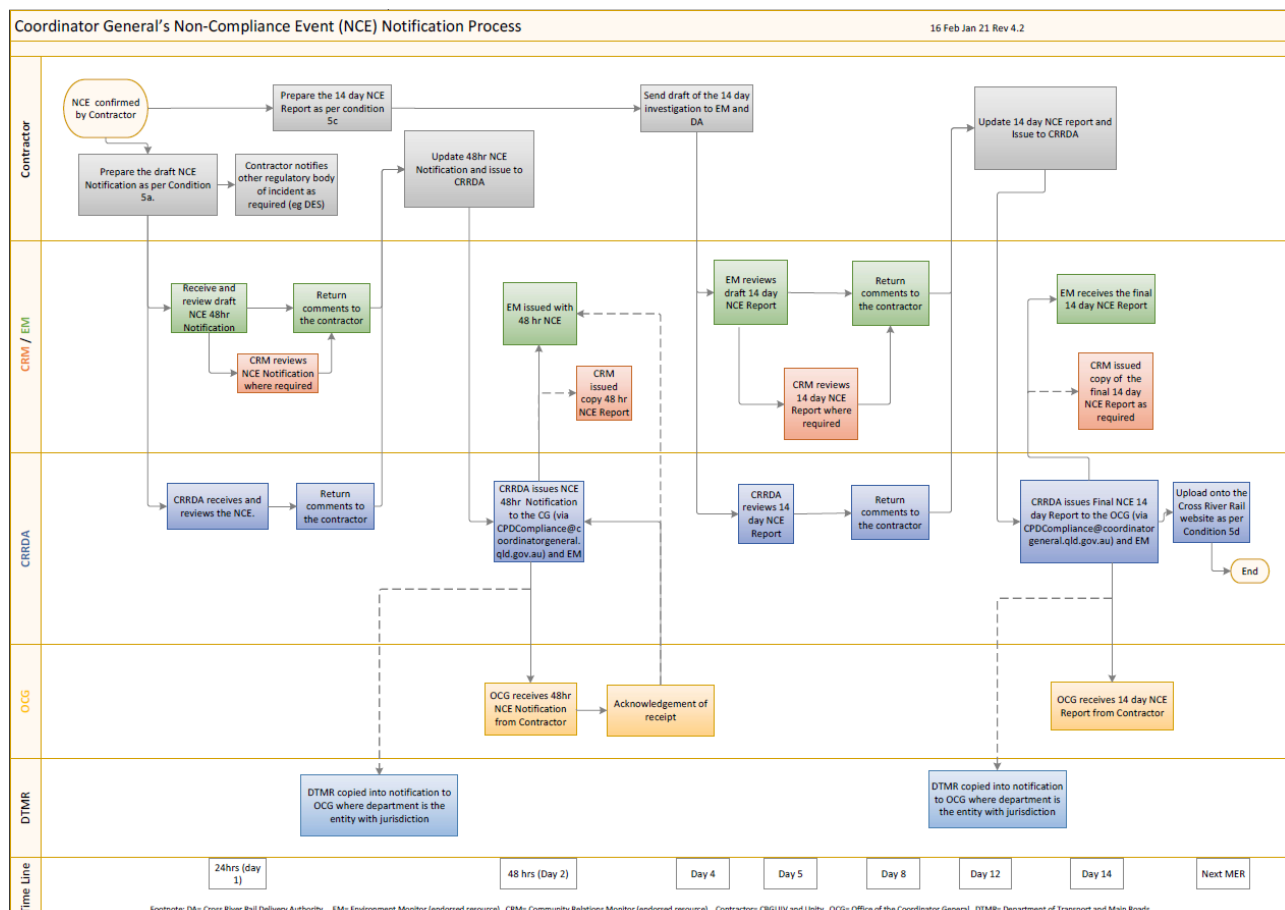


Figure 3: Extract of Assurance Framework Document prepared by the Proponent (Aug-21), NCE Process

A non-compliance that triggers the following will be managed with the necessary degree of confidentiality to protect all interested parties in a timeframe agreed by all stakeholders to ensure that project activities can resume as soon as possible:

- Development of specific mitigation measures with DAPs, as outlined in Appendix 1 of the Coordination Plan – Environmental Monitor

- Work activities to be stopped at the request of the Proponent upon receiving advice from the Environmental Monitor or Community Relations Monitor until such time the non-compliance is corrected.

The Delivery Authority and Environmental Monitor will agree acceptable timeframes.

Notwithstanding the above the notification and investigation reporting and associated publishing timeframes detailed in section 8.2.3 are immutable.

The below diagram provides an overarching view of non-compliance management processes.

For each non-compliance, UNITY will undertake a review of the root cause and contributing factors to identify the appropriate corrective actions.

The review of the non-compliance will cover a review of the management documents (including the C-EMP, Workpack and SEP) used by Unity to inform construction methodologies.

Where the root cause or a contributing factor is linked to inadequate or insufficient management measures identified in this C-EMP or its subplans, Unity will update the C-EMP / its sub-plans accordingly.

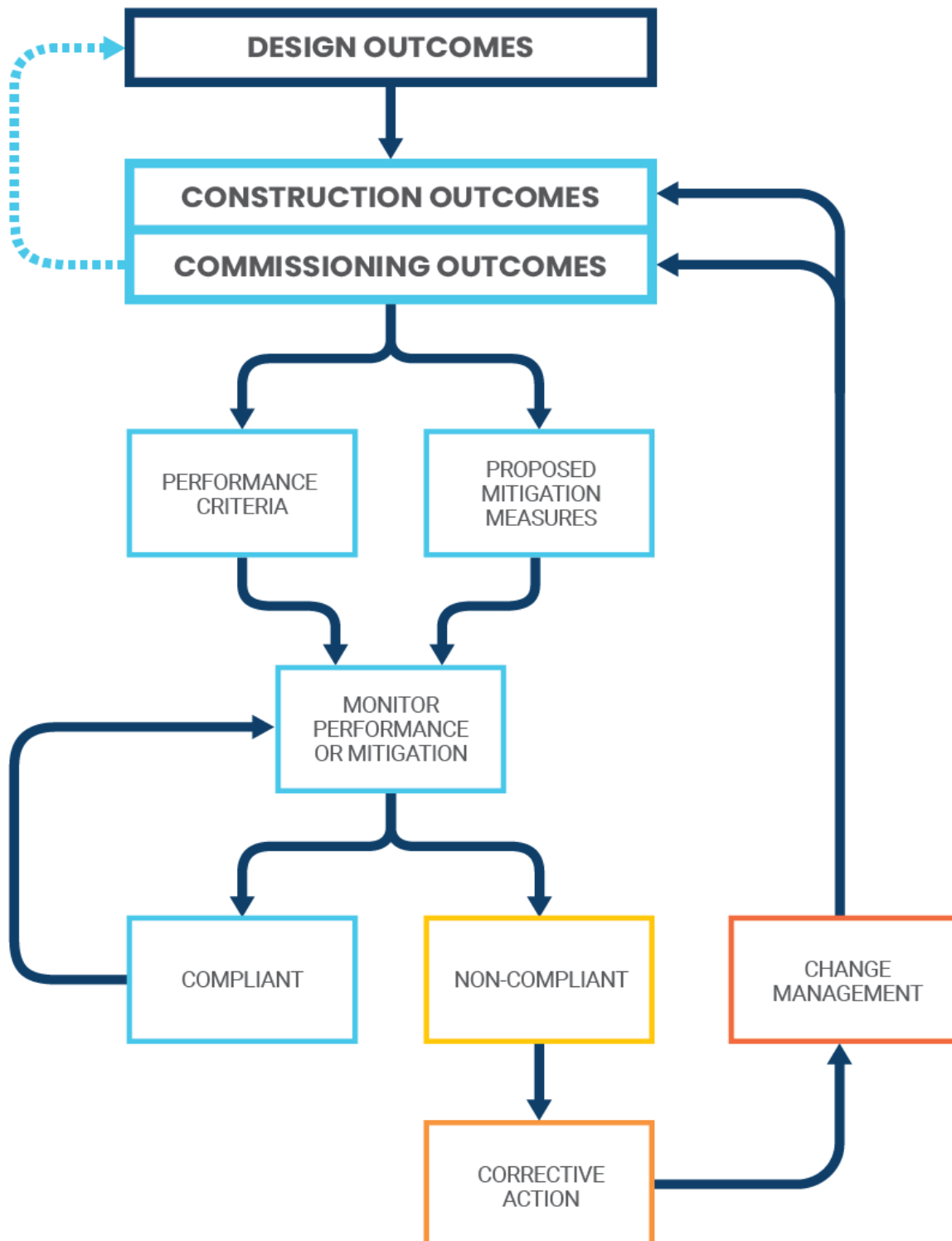


Figure 4: Performance monitoring and change management

6.3 Complaints Management

UNITY Environment team will work closely with the Communication and Stakeholder Engagement team if there is a complaint regarding an environmental matter. If a complaint cannot be resolved in a timely fashion, UNITY will instigate the Complaints Management Process described in the Community Engagement Plan.

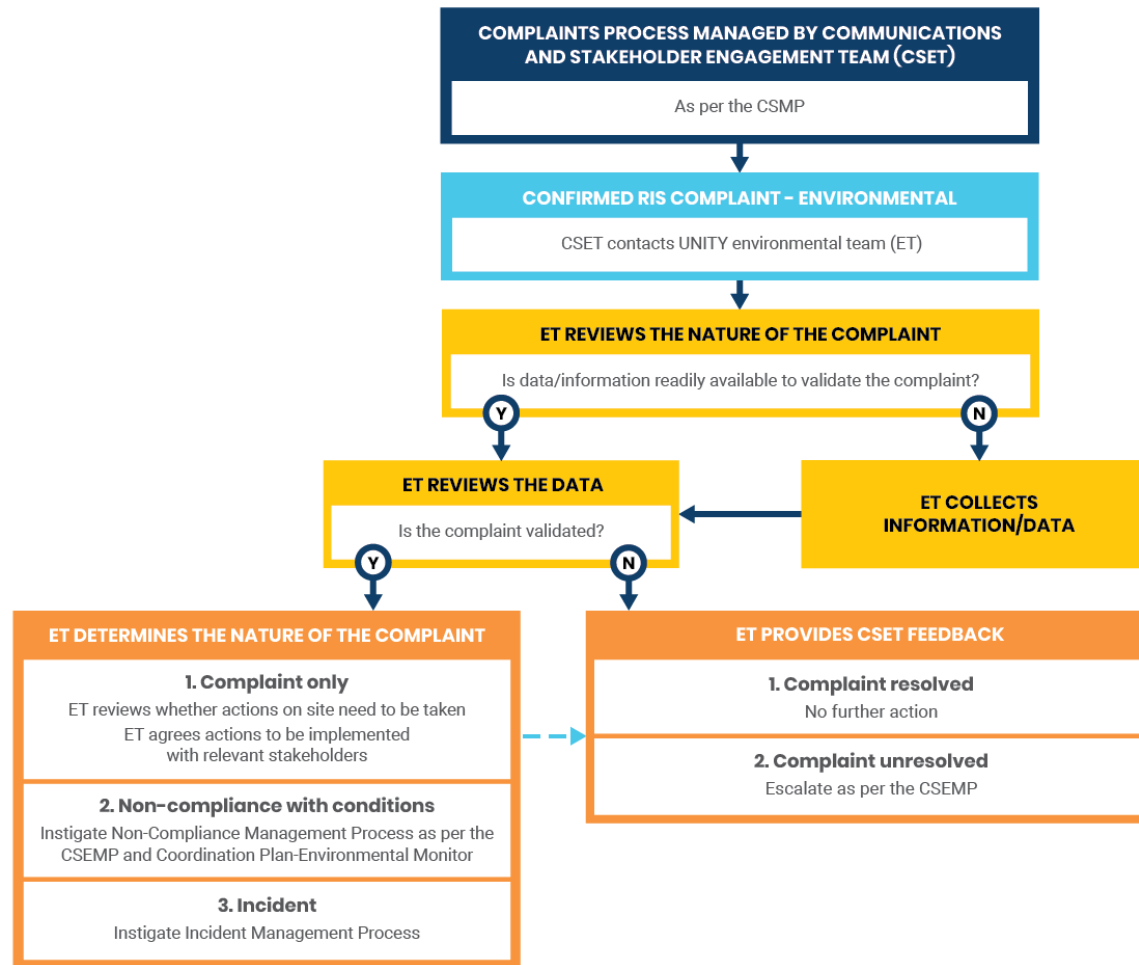


Figure 5: Environmental complaints management process

6.4 Environmental Monitor Role

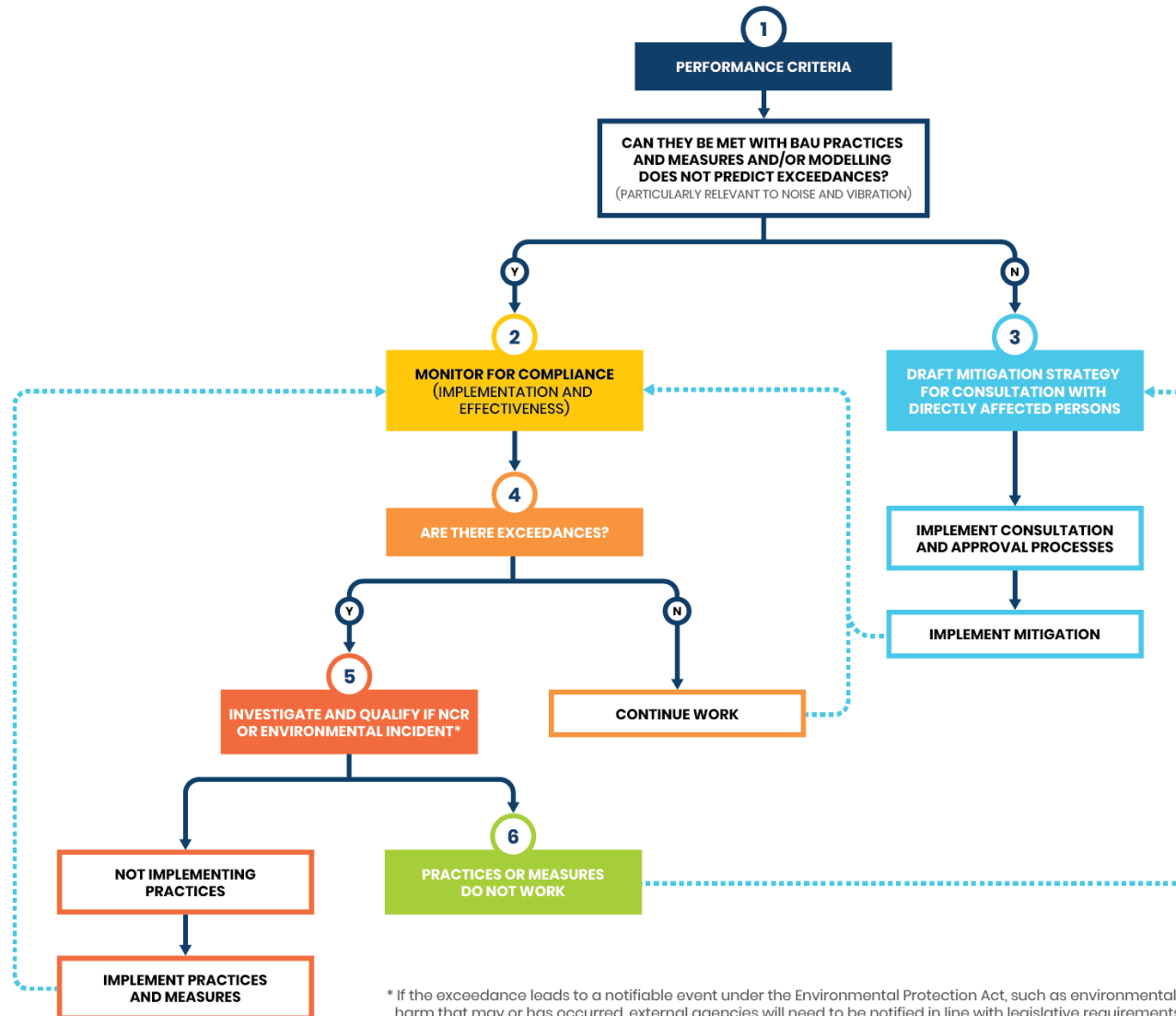
The role of the Environmental Monitor is defined under Imposed Condition 7(c).

The Environmental Monitor must:

- Monitor compliance with the imposed conditions during the construction of the Project;
- Monitor compliance with the C-EMP and subplans
- Maintain a register of mitigation measures agreed between the Proponent (Delivery Authority), UNITY and the DAP (Mitigation Register)
- Review the compliance reports required by Imposed Conditions 5, and the monthly reports and annual reports required by Condition 6, and provide advice to the Coordinator-General and the Proponent (Delivery Authority) on the contents and adequacy of those reports;
- Review the results of monitoring, which may be verified by the Environmental Monitor including by independent monitoring;
- Provide advice to the Proponent (Delivery Authority) about compliance with Imposed Conditions for construction, including providing the results of independent monitoring where required;
- Provide advice to the Proponent (Delivery Authority) about issues raised in complaints and the response to complaints, including advice from the Community Relations Monitor;
- Endorse the C-EMP as consistent with the OEMP and complying with Imposed Conditions (Construction)

The Environmental Monitor is a critical stakeholder in the successful management of these events. The below diagram illustrates how the Environmental Monitor will remain informed and involved in the process, as per the requirements of the CG Change Report.

UNITY notes that where monitoring results indicate an exceedance of the project goals or performance criteria, UNITY will undertake a review if the C-EMP or the relevant sub-plan and update them as required.



* If the exceedance leads to a notifiable event under the Environmental Protection Act, such as environmental harm that may or has occurred, external agencies will need to be notified in line with legislative requirements (non-conformances will be managed as per the NCR process, while incidents will be managed as to our Incident Management Process – refer to our CEMP for details).

DOCUMENTS	
1	OBLIGATIONS REGISTER
1A	CG REPORT
	OEMP
	LEVEL 2 APPROVALS
1B	CEMP
	COEMP
2	MONITORING PROGRAM
3	MITIGATION MEASURES REGISTER
4	MONTHLY AND ANNUAL REPORT
5	EVENT NOTIFICATION TO ENVIRONMENTAL MANAGER, CG AND DELIVERY AUTHORITY
6	INVESTIGATION REPORT

ENVIRONMENTAL MONITOR KEY INPUT	
1	MONITOR HAS REASONABLE ACCESS
1A	MONITOR COMPLIANCE
1B	REVIEW, ENDORSE AND MONITOR COMPLIANCE
2	REVIEW AND APPROVE AS PART OF CEMP
3	REVIEW AND MAINTAIN REGISTER OF AGREED MITIGATION MEASURES
4	REVIEW, VERIFY AND PROVIDE ADVICE TO CG
5	RECEIVE AND REVIEW, AND POTENTIALLY PROVIDE FEEDBACK AND SUPPORT
6	RECEIVE AND REVIEW, AND POTENTIALLY PROVIDE FEEDBACK AND SUPPORT. MAY ALSO BE CONSULTED.

7 Auditing and Reviews

UNITY will conduct regular reviews and audits of this plan to maximise the benefits that can be achieved through the continual improvement process. The Environment Manager and Alliance Manager will be responsible for the internal review and auditing of the C-EMP.

External audits and reviews will also be undertaken by the:

- Environmental Monitor as per Condition 7 of the CG change report at a frequency of their discretion
- ISO14001 certified Auditor to ensure UNITY is adequately performing under their EMS yearly.

7.1 Auditor Selection

Internal audits will be led preferably by a person independent of the works. The Quality Manager will be responsible for selecting the auditor.

The external audits will be led by SQPs and include:

- The Environmental Monitor as per Condition 7 of the CG change report
- ISO14001 certified Auditor to ensure UNITY is adequately performing under their EMS.

7.2 Audit Report

The auditors will prepare Audit Summary Reports at the earliest practical instance following the audit.

The internal audits reports will be used to inform the Annual Report required by Condition 6 of the CG Change Report.

The internal and external audit report will be used to inform the Environmental Monitor and support them in producing the required advice to the CG and the Delivery Authority as required by Condition 7 of the CG Change Report.

8 Plan Monitoring and Reporting

8.1 Updates and Reviews

The review requirements of this plan will be as per the below table:

Table 10: Updates and review requirements

Requirements Source	Frequency	Trigger	Review	Endorsement	Notification to CG
CG's Change Report – Appendix 1 – Part C – Imposed Conditions (Construction) Condition 4(g)(i)	As triggered but no longer than 6-monthly	When there is new or additional relevant project works	Environmental Monitor Community Relations Monitor Delivery Authority	Environmental Monitor	Required – 20 BD before the works can commence
CG's Change Report – Appendix 1 – Part C – Imposed Conditions (Construction) Condition 4(h))	As triggered but no longer than 6-monthly	Updates to the C-EMP that are limited to new or different mitigation measures for managed work	As above	As above	Not required
EMS	As triggered but no longer than 6-monthly	Change to Imposed Conditions that have a material effect on Management Measures detailed in the C-EMP or its sub-plans as a result of an RfPC affecting the RIS Scope of Works	As above	As above	Not required
EMS	As triggered but no longer than 6-monthly	Change in work activities at a particular site	As above	Alliance Manager	Required if changes are deemed new or additional works
EMS	6-monthly	If no review triggered in the prior 6 months	As above	Alliance Manager	Required if significant updates are triggered from the review

8.2 Reporting

8.2.1 Monthly CG Report

UNITY will prepare a monthly report in accordance with the CG Change Report requirements to summarise:

- Construction activities undertaken during the month
- Results of the monitoring activities for Air, Noise, Vibration and Water quality and where required, interpretation of the results
- 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

- Details of complaints, including the number of complaints, description of issues, responses, and corrective actions.

8.2.2 Monthly Alliance Report

UNITY will prepare a monthly report in accordance with the Project Owner's requirements which may include additional information to the Monthly report such as, the Environment Design Report, Fauna and Flora records, waste records, details of archaeological finds as per the Archaeological Management Plan (AMP) and details of notifiable environmental incidents. This report will not be published online.

8.2.3 Additional Reporting

Additional environmental reporting requirements will be as per the CG's Change Report (Appendix 1, Part C, Conditions 5 and 6) as per the below table.

Additional detail around Environmental Events can be found in the Environmental Events Reporting, Escalation, and Investigation Procedure (RIS-UNA-DEL-PRC-02016).

Table 11: Additional Reporting requirements

Type	Frequency and Timeframes	Recipients	Delivery Authority Action
Incident and Non Compliance Report CGCR C5(b) – (c)	Interim Within two days of a non-compliance with the CG's conditions being confirmed Comprehensive Within 14 days of the interim report, or as part of the next monthly environmental report, whichever is sooner.	UNITY AMT Environmental Monitor Community Relations Monitor Delivery Authority DTMR CG	Publish the Non-Compliance Event Report on the project website Retain on the project website for the duration of the commissioning phase for the project.
Notifiable Incident under the EP Act CGCR C5(b) – (c)	Interim Within 24 hours of an environmental incident or a non-compliance that causes or threatens 'material or serious environmental harm' Comprehensive As required by the DES. Before any project member is questioned by officers of a statutory authority, they will endeavour to consult the ALT to determine whether legal counsel is needed. Regulatory inspectors must be given appropriate assistance during their own investigations.	Department of Environment and Science (DES) UNITY AMT Environmental Monitor Community Relations Monitor Delivery Authority CG	Decide whether this is published on the project website Remain involved in the investigation and discussions with the DES.
Monthly environmental construction report CGCR C6(e)	The Monthly Report must be provided to the Coordinator-General and the Environmental Monitor 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.	Environmental Monitor Community Relations Monitor Delivery Authority DTMR CG	Publish on the project website Retain on the project website for the duration of the commissioning phase for the project.

Type	Frequency and Timeframes	Recipients	Delivery Authority Action
Annual Report CGCR C6(e)	By 15 July or the next business day after the end of the financial year to which the report relates for the elements the responsibility of the Alliance.	Environmental Monitor Community Relations Monitor Delivery Authority DTMR CG	Provide to the CG and publish on the project website and no later than 31 July in any year during the construction and commissioning phases about compliance with the imposed conditions.

UNITY will ensure all monthly and annual environmental reports and incident reports are kept for a minimum of five years after completion of construction or otherwise in accordance with applicable legislation or the regulator's requirements.

8.2.3.1 Interim Notification Contents

The Interim Notification report must include, subject to Legal or Confidentially Privilege

- a description of the Non-Compliance Event, including details of the location, date, and time of the Non-Compliance Event;
- the name and contact details of a designated contact person;
- an outline of actions that have been or will be taken to respond to the Non-Compliance Event.

8.2.3.2 Comprehensive Notification Contents

The Comprehensive Notification report must include, subject to Legal or Confidentially Privilege

- a description of the Non-Compliance Event, including details of the location, date
- and time of the Non-Compliance Event;
- the name and contact details of a designated contact person;
- the circumstances in which the Non-Compliance Event occurred;
- details of any complaint in relation to the Non-Compliance Event;
- the cause of the Non-Compliance Event;
- a description of the environmental effects of the Non-Compliance Event;
- the results of any sampling or monitoring performed in relation to the Non-Compliance Event;
- actions taken to mitigate the environmental effects of the Non-Compliance Event;
- proposed actions to prevent a recurrence of the Non-Compliance Event, including timing and responsibility for implementation.

8.2.3.3 Annual Report Contents

- The Annual Report must include, subject to Legal or Confidentially Privilege:
- a compliance evaluation table detailing the relevant imposed condition, whether
- compliance with the condition was achieved and how compliance was evaluated;
- an evaluation of compliance in relation to the CEMP and its sub-plans;
- a summary of any Non-Compliance Events during the reporting period;
- 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).

Attachment 1 Terms and Definitions

Acronym/Abbreviation	Definition
AASS	Actual Acid Sulfate Soils
ACH Act	Aboriginal Cultural Heritage Act 2003 (Qld)
ADA	Alliance Development Agreement
ADR	Accepted Development Requirement
AEP	Annual Exceedance Probability
ALT	Alliance Leadership Team
AMP	Alliance Management Plan
AMP	Archaeological Management Plan
AMT	Alliance Management Team
Outline AQMP	Outline Air Quality Management Plan
ARI	Average Recurrence Interval
ASS	Acid Sulfate Soils
ASSMP	Acid Sulfate Soil Management Plan
BAU	Business as Usual
BCC	Brisbane City Council
BD	Business Day
BPM	Best Practice Management
BTEXN	Benzene, Toluene, Ethylbenzene, Xylenes, Naphthalene
CAP	Construction Area Plan
CAPEX	Capital Expenditure
C-EMP	Construction Environmental Management Plan
CG	Coordinator-General
CHMP	Cultural Heritage Management Plan as per the meaning of the ACH Act
Outline CLMP	Outline Contaminated Land Management Plan
CLR	Contaminated Land Register
CMP	Construction Management Plan
CMS	CPB Management System
CO-EMP	Commissioning Environmental Management Plan
CPM Act	Coastal Protection and Management Act
CRRDA	Cross River Rail Delivery Authority
CEP	Community Engagement Plan (also called Communications and Stakeholder Engagement Management Plan or CSMP)
CSET	Communications and Stakeholder Engagement Team
Outline CTMP	Outline Construction Traffic Management Plan
Outline CVMP	Outline Construction Vehicles Management Plan
CRR	Cross River Rail
Outline CSEP	Outline Community and Stakeholder Engagement Plan
CSEMP	Communications and Stakeholder Engagement Management Plan
Outline CWMP	Outline Construction Worksite Management Plan

Acronym/Abbreviation	Definition
Cwth	Commonwealth
DA	Development Approval
DAF	Department of Agriculture and Fisheries
DAP	Directly Affected Persons
DATSIP	Department of Aboriginal and Torres Strait Islander Partnerships (Qld)
DEE	Department of Environment and Energy (Cwth)
Delivery Authority	Cross River Rail Delivery Authority
DES	Department of Environment and Science
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.
DNRME	Department of Natural Resources, Mine and Energy
DOORS NG	Rational Dynamic Object Oriented Requirements System Next Generation
DO	Dissolved Oxygen
DRC	Disaster Recovery Centre
DSDMIP	Department of State Development, Manufacturing, Infrastructure and Planning
DTMR	State Department of Transport and Main Roads
EA	Environmental Authority
EDMS	Electronic Document Management System
EDQ	Economic Development Queensland
EDR	Environmental Design Report
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EMR	Environmental Management Register
EMS	Environmental Management System
EP Act	Environmental Protection Act 1994
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
EPP	Environmental Protection Policy
EPReg	Environmental Protection Regulation 2008
ERA	Environmentally Relevant Activity
ESC-P	Erosion and Sediment Control Plan
ETCS	European Train Control System
EVNT	Endangered, Vulnerable, and Near Threatened protected species
EWMS	Environmental Work Method Statement
EY	Exceedance per Year
F2S	Fairfield to Salisbury
FRP	Filterable Reactive Phosphorus
FSC	Fauna Spotter Catcher
GBO	General Biosecurity Obligation
GED	General Environmental Duty
GHG	Greenhouse Gas

Acronym/Abbreviation	Definition
HAT	Highest Astronomical Tide
Outline HRMP	Outline Hazard and Risk Management Plan
H&S	Health and Safety
IC	Independent Certifier
IECA	International Erosion Control Association
IFD	Intensity-Frequency-Duration
ISC	Infrastructure Sustainability Council
KPI	Key Performance Indicator
KRA	Key Result Area
LNAPL	Light Non Aqueous Phase Liquid
Managed Works	Means Project Work for which either the predicted or monitored impacts meet the performance criteria at a Sensitive Place.
MCU	Material Change of Use
MEDQ	Minister for Economic Development Queensland
MES	Matters of Environmental Significance
MHWS	Mean High Water Spring
MLES	Matter of Local Environmental Significance
MNES	Matter of National Environmental Significance
MOSI	Mandatory Optional Scope Items
MRTS	Main Roads Technical Specifications
MSES	Matter of State Environmental Significance
NALL	Natural Assets Local Law 2003
NATA	National Association of Testing Authorities
NC Act	Nature Conservation Act 1992
Outline NCMP	Outline Nature Conservation Management Plan
NEPM	National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013
NGER	National Greenhouse and Energy Reporting Act 2007
NGR	New Generation Rollingstock
Non Compliance Event	means Project Works that do not comply with the Imposed Conditions
NT Act	Native Title Act 1993 (Cwth)
Outline NVMP	Outline Noise and Vibration Management Plan
O-EMP	Outline Environmental Management Plan
OFSC	Office of Federal Safety Commission
OPEX	Operational Expenditure
PAA	Project Alliance Agreement
PAHs	Poly Aromatic Hydrocarbons
PALM	Permit and Licence Management
PASS	Potential Acid Sulfate Soils
PCPV	Peak Component Particle Velocity
PDA	Priority Development Area

Acronym/Abbreviation	Definition
PMP	Project Management Plan
PMS	Project Management System
PMST	Protected Matters Search Tool
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 Works	Means any works, including early works, demolition works, or site preparation works, for construction of the project. Project Work does not include: <ul style="list-style-type: none"> 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
PSTR	Project Scope and Technical Requirements
QHC	Queensland Heritage Council
Qld	Queensland
QR	Queensland Rail
QRHC	Queensland Rail Heritage Council
RCP	Representative Concentration Pathway
RCS	Respirable Crystalline Silica
RE	Regional Ecosystem
RFP	Request For Proposal
RIPC	Request for Project Change
RIFA	Red Imported Fire Ant
RIS	Rail, Integration and Systems Package
ROMP	Risk and Opportunity Management Plan
RPEQ	Registration as a professional engineer of Queensland
RPP	Riverine Protection Permit
SAMP	Outline Social Amenity Management Plan
SARA	State Assessment and Referral Agency
SBS	System Breakdown Structure
SDS	Safety Data Sheet
SDAP	State Development Assessment Provisions
SDPWO Act	State Development and Public Works Organisation Act 1971 (Qld)
Sensitive Place	<ul style="list-style-type: none"> Dwelling (including residential allotment, mobile home or caravan park, residential marina or other residential premises, motel, hotel, or hostel) Library, childcare centre, kindergarten, school, university, or other educational institution Medical centre, surgery, or hospital Protected area 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 Workplace used as an office or for business or commercial purposes, which is not part of the project activity(ies) and does not include employee's accommodation or Public roads.
SEP	Site Environmental Plan
SEQ	South East Queensland

Acronym/Abbreviation	Definition
SME	Subject Matter Expert
SMP	Sustainability Management Plan
SMP	Site Management Plan (contaminated land)
SPP	State Planning Policy
SQP	Suitably Qualified Person
Suitably Qualified Person – Contaminated Land	Means a person who: (a) has qualifications and experience relevant to performing the function including but not limited to: i. a bachelor's degree in science or engineering; and ii. 3 years' experience in undertaking soil contamination assessments; and (b) is a member of at least one organisation prescribed in Schedule 8 of the Environmental Protection Regulation 2008
Suitably Qualified Person (other matters)	Means a person who has professional qualifications, training, skills, or experience relevant to the nominated subject matter and can give authoritative assessment, advice, and analysis to performance relative to the subject matter using the relevant protocols, standards, methods, or literature
SWMS	Safe Work Method Statement
TBC	To be Confirmed
TDS	Total Dissolved Solids
TEC	Threatened Ecological Community
TMP	Traffic Management Plan
TN	Total Nitrogen
TNA	Training Needs Analysis
TOR	Terms of Reference
TP	Total Phosphorus
TRH	Total Recoverable Hydrocarbons
TSS	Total Suspended Solids
VFM	Value for Money
WAP	Work Area Plan
WBS	Work Breakdown Structure
WHSMF	Workplace Health and Safety Management Plan
WRRMP	Waste and Resource Recovery Management plan
WQMP	Outline Water Quality Management Plan

Certificate AU14/4487

SGS

The management system of

CPB Contractors Pty Limited

Level 18, 177 Pacific Highway, North Sydney, NSW 2060
Australia

has been assessed and certified as meeting the requirements of

ISO 14001:2015

For the following activities

The provision of project management and related services including design, procurement, construction, traffic management at roadworks, completion, commissioning and maintenance of civil infrastructure (including site preparation, road and bridge construction, non-building construction, plant hire and leasing), building, rail, water, utilities, tunnelling, energy, marine, mine infrastructure, structural, mechanical, piping and electrical engineering and related industries delivered under varying forms of contract including joint ventures and alliances. The scope of registration also includes the maintenance and repair of fixed and mobile plant and the manufacture of precast concrete units for major infrastructure works.

This certificate is valid from 06 July 2020 until 30 November 2022 and remains valid subject to satisfactory surveillance audits. Certified activities performed by additional sites listed on subsequent pages. Recertification audit due a minimum of 60 days before the expiration date. Issue 10. Certified since 06 December 1995

Authorised by

SGS Systems & Services Certification Australia Pty Ltd
10/586 Blackburn Road, Notting Hill VIC 3168, Australia
t(61-3) 9574 3200 f(61-3) 9574 3399 www.au.sgs.com

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Certificate AU14/4487, continued



CPB Contractors Pty Limited

ISO 14001:2015

Issue 10



Certified activities are performed by the sites on the list.
Sites:

Business Unit Operation

Level 2, 177 Pacific Highway, North Sydney, NSW 2060

Level 6, 567 Collins Street, Melbourne, VIC 3000

Level 6, HQ South Tower, 520 Wickham Street, Fortitude Valley, QLD 4006

202 Pier Street, Perth, WA 6000

Level 1, 167 Denham Street, Townsville, QLD 4810

Level 2, 19 Hargreaves Street, Auckland, 1011, New Zealand

Ground Level, 62 Cavenagh Street, Darwin, NT 0800

Plant Facilities

8a Hereford Street, Berkeley Vale, NSW 2261

Lot 804 (SubLot 5) Elmsfield Road, Midvale, WA 6056

67 Bernoulli Street, Darra, QLD 4076

158 Cherry Lane, Laverton North, VIC 3026

Pre-Cast Facility

Corner Engineering & Industrial Drive, North Boambee, NSW 2450

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Attachment 3 Coordinator-General – Project Wide Imposed Conditions Compliance Table

Source	Responsibility	Condition Details	Addressed	Comments
CG Report - Part A - General Conditions		Part A. Imposed Conditions (General)		Not applicable to Advance Works – Site Wide – Non Intrusive Works
CG Report - Part A - Condition 1 - General Conditions		Condition 1. General conditions		
CG Report - Part A - Condition 1 - General Conditions	UNITY	(a) The project must be carried out generally in accordance with:	Section 2.1	
CG Report - Part A - Condition 1 - General Conditions	UNITY	(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;	Section 2.1	<p>RfPC 11 introduced the design changes at Clapham Yard</p> <ul style="list-style-type: none"> reconfigure the layout of the Project Works at Clapham Yard, including Moorooka Station, to improve the operational functionality of Clapham Yard. The Proposed Changes to the layout are generally consistent with the Evaluated Project. replacement of the two existing rail bridges and construction of a new grade separated structure across Moolabin Creek and into Clapham Yard with track configurations as follows: <ul style="list-style-type: none"> one replaced bridge to be a three-track bridge for the dual gauge mainline, neck and Aurizon shunt neck; one replaced bridge to be a two-track bridge for up and down suburban lines; a new grade separated structure approximately 430m in length, including a bridge crossing of Moolabin Creek. raising of the stabling yard in Clapham Yard to achieve a 1% AEP flood immunity, with the import of approximately 240,000m³ of fill material.
CG Report - Part A - Condition 1 - General Conditions (part)	UNITY	(ii) the drawings provided at Volume 2, Cross River Rail Request for Project Change dated April 2021;	Section 2.1	As above
CG Report - Part A - Condition 1 - General Conditions	Not Applicable to UNITY	(iii) the Cross River Rail Request for Project Change dated March 2021	N/A	RfPC 10 introduced changes to Sunday haulage from Roma Street and Albert Street Stations
CG Report - Part A - Condition 1 - General Conditions	Not Applicable to UNITY	(iv) the Cross River Rail Request for Project Change dated November 2020;	N/A	<p>RfPC 9 requested changes to construction methodology from a partly mined, partly cut and cover construction, to cut and cover construction only, and associated access via Peter Doherty Street, including a temporary intersection upgrade at the intersection of Peter Doherty Street and Annerley Road. The change to construction methodology is in response to minor track and structural realignments to resolve complex construction interfaces and optimise operations</p> <p>This scope is the TSD scope</p>
CG Report - Part A - Condition 1 - General Conditions	UNITY	(v) the Cross River Rail Request for Project Change dated April August 2020;	Section 2.1	<p>RfPC 8 pertained to construction changes and not design changes for the southern portal</p> <ul style="list-style-type: none"> Changed heavy vehicle access arrangements to the Southern Portal worksite via Kent Street, Dutton Park, and a private road on land within the Princess Alexandra Hospital site to provide for improved safety and efficiency for heavy vehicle access; and Temporary occupation of the road at Annerley Road and Kent Street, Dutton Park, to allow for minor road corridor treatments to facilitate heavy vehicle access to the Southern Portal worksite, and the private road on land within the Princess Alexandra Hospital site.

Source	Responsibility	Condition Details	Addressed	Comments
CG Report - Part A - Condition 1 - General Conditions	UNITY	(vi) the Cross River Rail request for Project Change dated May 2020;	Section 2.1	<p>RfPC 7 requested the following changes to the Evaluated Project:</p> <ul style="list-style-type: none"> Update of the project boundaries in response to detailed design and the associated interface and integration needs with the balance of the Queensland Rail network at: <ul style="list-style-type: none"> Tennyson junction, Cleveland line, Bowen Hills and Albion Stations. the northern corridor (College Road to Bowen Bridge Rd) for the inclusion of an additional holding road within the rail corridor northern corridor at the RNA showground and leading to Mayne Yard to reflect recent consultations with the relevant land owners Mayne Yard for the installation of permanent drainage outlets Fairfield to Salisbury for updated temporary work site requirements Confirm the requirement for the land as part of the northern station entrance works. Amendment to Imposed Construction for Construction Amendment to environmental design requirement 5(i) to recognise different water quality release levels where the project is intersecting existing surface works, compared to the new underground works.
CG Report - Part A - Condition 1 - General Conditions	Not Applicable to UNITY	(vii) amendments to the Project identified in the Cross River Rail Request for Project Change dated June 2018;	N/A	The June 2018 RfPC relates to the Temporary Roma Street Coach Terminal Scope which does not form part of the RIS Alliance Scope of Works
CG Report - Part A - Condition 1 - General Conditions	Not Applicable to UNITY	(viii) amendments to the Project identified in the Cross River Rail Request for Project Change dated November 2018;	N/A	The November 2018 RfPC relates to the Roma Street Demolition Scope which does not form part of the RIS Alliance Scope of Works
CG Report - Part A - Condition 1 - General Conditions	UNITY	(ix) the Cross River Rail request for Project Change dated April 2019;	Section 2.1	<p>RfPC 4 introduced all of Project refinements as follows</p> <ul style="list-style-type: none"> Changes to the vertical and horizontal alignments of the tunnels, to accommodate the relocation of the stations and remove curves, resulting in slightly straighter tunnels; Realignment of rail lines through Mayne Area, mainline enhancements which include construction of new overpass bridges for Mayne Yard East and Mayne Yard North access roads and a new rail bridge across Breakfast Creek; New and expanded stabling facilities at Mayne Yard; A new stabling facility at Clapham Yard and rail bridge over Moolabin Creek; Upgrades to existing surface railway stations at Salisbury, Rocklea, Moorooka, Yeerongpilly, Yeronga and Fairfield; Changes to Exhibition Station design; Changes to construction access through Victoria Park and around the Northern Portal; Realignment of the underground Roma Street Station, with changes to design and construction methodology; Replacement of a section of the Roma Street section of the Inner Northern Busway, and integration of this section of the Inner Northern Busway with the underground Roma Street Station; Relocation of the proposed underground Albert Street Station and Woolloongabba Station, with changes to design and construction methodology; Minor horizontal and vertical realignment of the Boggo Road Station, with changes to design and construction methodology and the replacement of the pedestrian underpass to the Princess Alexandra Hospital with a pedestrian overpass across the rail corridor;
CG Report - Part A - Condition 1 - General Conditions	Delivery Authority	(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.	N/A	The notification to external parties managed by the Delivery Authority as the Project Owner
CG Report - Part A - Condition 1 - General Conditions	Not Applicable to UNITY	(c) The temporary coach terminal works must be carried out in accordance with the conditions imposed at Appendix 3.	N/A	The Temporary Coach Terminal scope of Works does not form part of the RIS Alliance Scope of Works

Source	Responsibility	Condition Details	Addressed	Comments
CG Report - Part A - Condition 2 - Outline EMP		Condition 2. Outline Environmental Management Plan		
CG Report - Part A - Condition 2 - Outline EMP	Delivery Authority	(a) Two months prior to the commencement of Project Work submit a final Outline Environmental Management Plan to the Coordinator-General for approval.	N/A	The Final Outline Environmental Plan is the Responsibility of the Delivery Authority and was approved on 18 December 2018
CG Report - Part A - Condition 2 - Outline EMP	Delivery Authority	(b) The Outline Environmental Management Plan must:	N/A	As Above
CG Report - Part A - Condition 2 - Outline EMP	Delivery Authority	(i) Include the environment outcomes and performance criteria for each environmental element from the draft outline EMP except as amended by these conditions;	N/A	As Above
CG Report - Part A - Condition 2 - Outline EMP	Delivery Authority	(ii) include possible mitigation measures, monitoring and reporting for each environmental element to achieve the environmental outcomes;	N/A	As Above
CG Report - Part A - Condition 2 - Outline EMP	Delivery Authority	(iii) include an outline of:	N/A	As Above
CG Report - Part A - Condition 2 - Outline EMP	Delivery Authority	(A) the Construction Environmental Management Plan	N/A	As Above
CG Report - Part A - Condition 2 - Outline EMP	Delivery Authority	(B) the Commissioning Environmental Management Plan	N/A	As Above
CG Report - Part A - Condition 2 - Outline EMP	Delivery Authority	(iv) be consistent with the Environmental Design Requirements in Schedule 1	N/A	As Above
CG Report - Part A - Condition 2 - Outline EMP	Delivery Authority	(v) include the following sub-plans:	N/A	As Above
CG Report - Part A - Condition 2 - Outline EMP	Delivery Authority	(A) Community and Stakeholder Engagement Plan	N/A	As Above
CG Report - Part A - Condition 2 - Outline EMP	Delivery Authority	(B) Construction Worksite Management Plan	N/A	As Above
CG Report - Part A - Condition 2 - Outline EMP	Delivery Authority	(C) Construction Traffic Management Plan (CTMP)	N/A	As Above
CG Report - Part A - Condition 2 - Outline EMP	Delivery Authority	(D) Construction Vehicle Management Plan	N/A	As Above
CG Report - Part A - Condition 2 - Outline EMP	Delivery Authority	(A) Water Quality Monitoring Plan	N/A	As Above
CG Report - Part A - Condition 2 - Outline EMP	Delivery Authority	(B) Erosion and Sediment Control Plan	N/A	As Above
CG Report - Part A - Condition 2 - Outline EMP	Delivery Authority	(C) Spoil Placement Management Plan	N/A	As Above
CG Report - Part A - Condition 2 - Outline EMP	Delivery Authority	(D) Noise and Vibration Management Plan	N/A	As Above
CG Report - Part A - Condition 2 - Outline EMP	Delivery Authority	(E) Air Quality Management Plan	N/A	As Above
CG Report - Part A - Condition 2 - Outline EMP	Delivery Authority	(F) Settlement Management Plan	N/A	As Above
CG Report - Part A - Condition 2 - Outline EMP	Delivery Authority	(G) Non-Indigenous Cultural Heritage Management Plan	N/A	As Above
CG Report - Part A - Condition 2 - Outline EMP	Delivery Authority	(H) Indigenous Cultural Heritage Management Plan	N/A	As Above
CG Report - Part A - Condition 2 - Outline EMP	Delivery Authority	(ii) 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.	N/A	As Above

Source	Responsibility	Condition Details	Addressed	Comments
CG Report - Part A - Condition 2 - Outline EMP	Delivery Authority	(b) 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.	N/A	As Above
CG Report - Part B - Design Conditions		Part B. Imposed Conditions (Design)		
CG Report - Part B - Condition 3 - Design		Condition 3. Design		
CG Report - Part B - Condition 3 - Design	UNITY	(a) The project must achieve the Environmental Design Requirements in Schedule 1	Not addressed in the C-EMP	This process will be managed during the detailed design process and will be Reported on as part of the Progressive Environmental Design Report presented in the Monthly Alliance Report Commissioned against under the Commissioning Environmental Management Plan
CG Report - Part C - Construction - Construction Conditions		Part C - Construction. Imposed Conditions (Construction)		
CG Report - Part C - Construction - Condition 4 - C-EMP		Condition 4. Construction Environmental Management Plan		
CG Report - Part C - Construction - Condition 4 - C-EMP	UNITY	(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.		Not applicable to Advance Works – Site Wide – Non Intrusive Works
CG Report - Part C - Construction - Condition 4 - C-EMP	Delivery Authority	(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.	N/A	The notification to external parties managed by the Delivery Authority as the Project Owner Not applicable to Advance Works – Site Wide – Non Intrusive Works
CG Report - Part C - Construction - Condition 4 - C-EMP	UNITY	(c) The Construction Environmental Management Plan must:	This Plan	Not applicable to Advance Works – Site Wide – Non Intrusive Works
CG Report - Part C - Construction - Condition 4 - C-EMP	UNITY	(i) describe the Relevant Project Work;	Section 1.3, Section 1.4, Section 1.6	Not applicable to Advance Works – Site Wide – Non Intrusive Works
CG Report - Part C - Construction - Condition 4 - C-EMP	UNITY	(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;	Section 3.2	The planning documentation UNITY uses ensures the adequate level of detail is distilled through pertinent management documents that are not only targeted at the works and associated impacts but also the audience of project staff responsible for implementing the associated mitigation measures Where additional studies and reports are required for specific elements, they are identified in the relevant subplans. The outcomes of the predictive studies and assessments will typically be detailed in the Construction Area Plans or in the Workpacks and associated Site Environmental Plans
CG Report - Part C - Construction - Condition 4 - C-EMP	UNITY	(iii) be generally consistent with the Outline EMP and incorporate its environmental outcomes and performance criteria;	Section 4.2	The endorsement of this plan and the relevant subplans by the Environmental Monitor and subsequent publication on the Project Website is the guarantee that the C-EMP is consistent with the O-EMP and the imposed condition.
CG Report - Part C - Construction - Condition 4 - C-EMP	UNITY	(iv) incorporate and respond to the Imposed Conditions (Construction);	Section 4 This Plan and associated sub-plans	This compliance Table maps out how each Imposed Condition (Construction) has been addressed and traces where the detail of the information will be contained (either within the C-EMP body, its subplans or other planning documentation such as Workpacks and Site Environmental Plans .
CG Report - Part C - Construction - Condition 4 - C-EMP	UNITY	(v) demonstrate that the Imposed Conditions (Construction) will be complied with during Relevant Project Work;	Section 4	
CG Report - Part C - Construction - Condition 4 - C-EMP	UNITY	(vi) incorporate the community engagement plan, including the complaints management process, in accordance with Condition 9;	Section 3.3, Section 6.3 CEP	

Source	Responsibility	Condition Details	Addressed	Comments
CG Report - Part C - Construction - Condition 4 - C-EMP	UNITY	(vii) where predictive studies indicate impacts beyond those provided for in the performance criteria, incorporate mitigation measures to achieve the environmental outcomes;	Section 3.2	
CG Report - Part C - Construction - Condition 4 - C-EMP	UNITY	(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);	CEP Section 6.4	
CG Report - Part C - Construction - Condition 4 - C-EMP	UNITY	(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);	Section 6.2	
CG Report - Part C - Construction - Condition 4 - C-EMP	UNITY	(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;	Section 6.2, Section 7	The Construction Environmental Monitoring Program in attachment 4 supplements section 6.3
CG Report - Part C - Construction - Condition 4 - C-EMP	UNITY	(xi) incorporate the EMP sub-plans required by the Imposed Conditions or as required by the approved Outline EMP;	Section 3.3.2	
CG Report - Part C - Construction - Condition 4 - C-EMP	UNITY	(d) The Construction Environmental Management Plan must be implemented for the duration of Relevant Project Work;	Section 3.1	
CG Report - Part C - Construction - Condition 4 - C-EMP	UNITY	(e) Relevant Project Work is authorised if it is undertaken in accordance with the Construction Environmental Management Plan;	Section 4.1.2	
CG Report - Part C - Construction - Condition 4 - C-EMP	UNITY	(f) The Construction Environmental Management Plan must be publicly available on the project website for the duration of the construction phase;	Section 4.1.2	
CG Report - Part C - Construction - Condition 4 - C-EMP	UNITY	(g) The Construction Environmental Management Plan may be updated;	Section 8.1	
CG Report - Part C - Construction - Condition 4 - C-EMP	UNITY	(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;	Section 8.1	
CG Report - Part C - Construction - Condition 4 - C-EMP	UNITY	(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.	Section 8.1	
CG Report - Part C - Construction - Condition 5 - Compliance	UNITY	Condition 5. Compliance		
CG Report - Part C - Construction - Condition 5 - Compliance	UNITY	(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.	Section 8.2.3	
CG Report - Part C - Construction - Condition 5 - Compliance	UNITY	(b) The notification must include:	Section 6, Section 8.2.3	
CG Report - Part C - Construction - Condition 5 - Compliance	UNITY	(i) a description of the Non-Compliance Event, including details of the location, date, and time of the Non-Compliance Event;	Section 6, Section 8.2.3	
CG Report - Part C - Construction - Condition 5 - Compliance	UNITY	(ii) the name and contact details of a designated contact person;	Section 6, Section 8.2.3	
CG Report - Part C - Construction - Condition 5 - Compliance	UNITY	(iii) an outline of actions that have been or will be taken to respond to the Non- Compliance Event.	Section 6, Section 8.2.3	
CG Report - Part C - Construction - Condition 5 - Compliance	UNITY	(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:	Section 6, Section 8.2.3	
CG Report - Part C - Construction - Condition 5 - Compliance	UNITY	(i) a description of the Non-Compliance Event, including details of the location, date, and time of the Non-Compliance Event;	Section 6, Section 8.2.3	
CG Report - Part C - Construction - Condition 5 - Compliance	UNITY	(ii) the name and contact details of a designated contact person;	Section 6, Section 8.2.3	
CG Report - Part C - Construction - Condition 5 - Compliance	UNITY	(i) the circumstances in which the Non-Compliance Event occurred;	Section 6, Section 8.2.3	
CG Report - Part C - Construction - Condition 5 - Compliance	UNITY	(iii) details of any complaint in relation to the Non-Compliance Event;	Section 6, Section 8.2.3	

Source	Responsibility	Condition Details	Addressed	Comments
CG Report - Part C - Construction - Condition 5 - Compliance	UNITY	(iv) the cause of the Non-Compliance Event;	Section 6, Section 8.2.3	
CG Report - Part C - Construction - Condition 5 - Compliance	UNITY	(v) a description of the environmental effects of the Non-Compliance Event;	Section 6, Section 8.2.3	
CG Report - Part C - Construction - Condition 5 - Compliance	UNITY	(vi) the results of any sampling or monitoring performed in relation to the Non- Compliance Event;	Section 6, Section 8.2.3	
CG Report - Part C - Construction - Condition 5 - Compliance	UNITY	(vii) actions taken to mitigate the environmental effects of the Non-Compliance Event;	Section 6, Section 8.2.3	
CG Report - Part C - Construction - Condition 5 - Compliance	UNITY	(viii) proposed actions to prevent a recurrence of the Non-Compliance Event, including timing and responsibility for implementation.	Section 6, Section 8.2.3	
CG Report - Part C - Construction - Condition 5 - Compliance	UNITY	(b) 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.	Section 6, Section 8.2.3	
CG Report - Part C - Construction - Condition 6 - Reporting	UNITY	Condition 6. Reporting		
CG Report - Part C - Construction - Condition 6 - Reporting	UNITY	(a) The Proponent must prepare a Monthly Report that summarises compliance and monitoring results for the duration of construction works.	Section 8.2.1	
CG Report - Part C - Construction - Condition 6 - Reporting	UNITY	(b) The Monthly Report must include:	Section 8.2.1	
CG Report - Part C - Construction - Condition 6 - Reporting	UNITY	(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;	Section 8.2.1	
CG Report - Part C - Construction - Condition 6 - Reporting	UNITY	(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;	Section 8.2.1	
CG Report - Part C - Construction - Condition 6 - Reporting	UNITY	(iii) reporting of complaints, including the number of complaints, description of issues, responses, and corrective actions.	Section 8.2.1	
CG Report - Part C - Construction - Condition 6 - Reporting	CRRDA	(c) The Monthly Report must be provided to the Coordinator-General and the Environmental Monitor, and made available on the project website within S/X 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.	Section 8.2.3	
CG Report - Part C - Construction - Condition 6 - Reporting	CRRDA	(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.	Section 8.2.3	
CG Report - Part C - Construction - Condition 6 - Reporting	CRRDA	(e) The Annual Report must include:	Section 8.2.3	
CG Report - Part C - Construction - Condition 6 - Reporting	CRRDA	(i) a compliance evaluation table detailing the relevant imposed condition, whether compliance with the condition was achieved and how compliance was evaluated	Section 8.2.3	
CG Report - Part C - Construction - Condition 6 - Reporting	UNITY	(ii) an evaluation of compliance in relation to the CEMP and its sub-plans;	Section 8.2.3	
CG Report - Part C - Construction - Condition 6 - Reporting	CRRDA	(iii) a summary of any Non-Compliance Events during the reporting period;	Section 8.2.3	
CG Report - Part C - Construction - Condition 6 - Reporting	CRRDA	(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).	Section 8.2.3	
CG Report - Part C - Construction - Condition 7 - Environmental monitor	UNITY	Condition 7. Environmental Monitor		
CG Report - Part C - Construction - Condition 7 - Environmental monitor	Delivery Authority	(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.	N/A	This is the responsibility of the Delivery Authority

Source	Responsibility	Condition Details	Addressed	Comments
CG Report - Part C - Construction - Condition 7 - Environmental monitor	Delivery Authority & UNITY	(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:	Community Engagement Sub-Plan	
CG Report - Part C - Construction - Condition 7 - Environmental monitor	Delivery Authority & UNITY	(i) all approvals;	Section 2.4	
CG Report - Part C - Construction - Condition 7 - Environmental monitor	Delivery Authority & UNITY	(ii) the Construction Environmental Management Plan;	Section 4.1.2	
CG Report - Part C - Construction - Condition 7 - Environmental monitor	Delivery Authority & UNITY	(iii) results of all monitoring required under the Imposed Conditions (Construction) including through the Construction Environmental Management Plan;	Section 3.3.2, Section 8.2	
CG Report - Part C - Construction - Condition 7 - Environmental monitor	Delivery Authority & UNITY	(iv) all information relating to complaints, including access to the complaints database.	Community Engagement Sub-Plan	
CG Report - Part C - Construction - Condition 7 - Environmental monitor	Delivery authority	(c) The Environmental Monitor must:	N/A	This condition details the responsibilities and accountabilities of the Environmental Monitor
CG Report - Part C - Construction - Condition 7 - Environmental monitor	Delivery authority	(i) monitor compliance with the imposed conditions during the construction of the project;	N/A	This condition details the responsibilities and accountabilities of the Environmental Monitor
CG Report - Part C - Construction - Condition 7 - Environmental monitor	Delivery authority	(ii) monitor compliance with the Construction Environmental Management Plan and sub-plans;	N/A	This condition details the responsibilities and accountabilities of the Environmental Monitor
CG Report - Part C - Construction - Condition 7 - Environmental monitor	Delivery authority	(iii) maintain a register of mitigation measures agreed between the Proponent and Directly Affected Persons (Mitigation Register);	N/A	This condition details the responsibilities and accountabilities of the Environmental Monitor
CG Report - Part C - Construction - Condition 7 - Environmental monitor	Delivery authority	(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;	N/A	This condition details the responsibilities and accountabilities of the Environmental Monitor
CG Report - Part C - Construction - Condition 7 - Environmental monitor	Delivery authority	(v) review the results of monitoring, which may be verified by the Environmental Monitor including by independent monitoring;	N/A	This condition details the responsibilities and accountabilities of the Environmental Monitor
CG Report - Part C - Construction - Condition 7 - Environmental monitor	Delivery authority	(vi) provide advice to the Proponent about compliance with the Imposed Conditions for construction, including by providing the results of independent monitoring where required;	N/A	This condition details the responsibilities and accountabilities of the Environmental Monitor
CG Report - Part C - Construction - Condition 7 - Environmental monitor	Delivery authority	(vii) provide advice to the Proponent about issues raised in complaints and the response to complaints, including advice from the Community Relations Monitor;	N/A	This condition details the responsibilities and accountabilities of the Environmental Monitor
CG Report - Part C - Construction - Condition 7 - Environmental monitor	Delivery authority	(viii) endorse the Construction Environmental Management Plan as consistent with the Outline EMP and complying with the Imposed Conditions (Construction);	N/A	This condition details the responsibilities and accountabilities of the Environmental Monitor
CG Report - Part C - Construction - Condition 8 - Community Relations monitor		Condition 8. Community Relations Monitor		
CG Report - Part C - Construction - Condition 8 - Community Relations monitor	Delivery authority	(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.	N/A	The Delivery Authority has engaged an Independent Community Relations Monitor in July 2019
CG Report - Part C - Construction - Condition 8 - Community Relations monitor	Delivery authority	(b) The Community Relations Monitor must:	N/A	This condition details the responsibilities and accountabilities of the Community Relations Monitor

Source	Responsibility	Condition Details	Addressed	Comments
CG Report - Part C - Construction - Condition 8 - Community Relations monitor	Delivery authority	(i) review and provide advice to the Environmental Monitor on the community engagement plan required by Condition 9;	N/A	This condition details the responsibilities and accountabilities of the Community Relations Monitor
CG Report - Part C - Construction - Condition 8 - Community Relations monitor	Delivery authority & Unity	(ii) receive monthly reports from the proponent on complaints;	Section 8.2	
CG Report - Part C - Construction - Condition 8 - Community Relations monitor	Delivery authority	(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;	N/A	This condition details the responsibilities and accountabilities of the Community Relations Monitor
CG Report - Part C - Construction - Condition 8 - Community Relations monitor	Delivery authority	(iv) provide advice to the Environmental Monitor in relation to complaints, community engagement and consultation on mitigation measures;	N/A	This condition details the responsibilities and accountabilities of the Community Relations Monitor
CG Report - Part C - Construction - Condition 8 - Community Relations monitor	Delivery authority	(v) be available to members of the community in accordance with Condition 9(f)(vi).	N/A	This condition details the responsibilities and accountabilities of the Community Relations Monitor
CG Report - Part C - Construction - Condition 9 - Community Engagement Plan		Condition 9. Community engagement plan		
CG Report - Part C - Construction - Condition 9 - Community Engagement Plan	UNITY	(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.	Community Engagement Sub-Plan	Refer to CG Conditions of Approval Compliance Table in the CEP
CG Report - Part C - Construction - Condition 9 - Community Engagement Plan	UNITY	(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.	Community Engagement Sub-Plan	Refer to CG Conditions of Approval Compliance Table in the CEP
CG Report - Part C - Construction - Condition 9 - Community Engagement Plan	UNITY	(c) The community engagement plan must provide for:	Community Engagement Sub-Plan	Refer to CG Conditions of Approval Compliance Table in the CEP
CG Report - Part C - Construction - Condition 9 - Community Engagement Plan	UNITY	(i) Directly Affected Persons to be consulted prior to commencement of Project Works and ongoing thereafter about Project Works, predicted impacts and mitigation measures;	Community Engagement Sub-Plan	Refer to CG Conditions of Approval Compliance Table in the CEP
CG Report - Part C - Construction - Condition 9 - Community Engagement Plan	UNITY	(ii) Directly Affected Persons to be consulted about possible mitigation measures;	Community Engagement Sub-Plan	Refer to CG Conditions of Approval Compliance Table in the CEP
CG Report - Part C - Construction - Condition 9 - Community Engagement Plan	UNITY	(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;	Community Engagement Sub-Plan	Refer to CG Conditions of Approval Compliance Table in the CEP
CG Report - Part C - Construction - Condition 9 - Community Engagement Plan	UNITY	(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;	Community Engagement Sub-Plan	Refer to CG Conditions of Approval Compliance Table in the CEP
CG Report - Part C - Construction - Condition 9 - Community Engagement Plan	UNITY	(v) specific community consultation plans for identified key stakeholders;	Community Engagement Sub-Plan	Refer to CG Conditions of Approval Compliance Table in the CEP
CG Report - Part C - Construction - Condition 9 - Community Engagement Plan	UNITY	(vi) implementation of an Indigenous employment policy, providing for Indigenous training and employment opportunities;	Community Engagement Sub-Plan	Refer to CG Conditions of Approval Compliance Table in the CEP
CG Report - Part C - Construction - Condition 9 - Community Engagement Plan	UNITY	(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.	Community Engagement Sub-Plan	Refer to CG Conditions of Approval Compliance Table in the CEP
CG Report - Part C - Construction - Condition 9 - Community Engagement Plan	UNITY	(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.	Community Engagement Sub-Plan	Refer to CG Conditions of Approval Compliance Table in the CEP

Source	Responsibility	Condition Details	Addressed	Comments
CG Report - Part C - Construction - Condition 9 - Community Engagement Plan	UNITY	(e) The complaints management system must deliver a prompt response to community concerns with relevant information, action where required, and reporting of incidents.	Community Engagement Sub-Plan	Refer to CG Conditions of Approval Compliance Table in the CEP
CG Report - Part C - Construction - Condition 9 - Community Engagement Plan	UNITY	(f) As a minimum, the complaints management system must include the following elements:	Community Engagement Sub-Plan	Refer to CG Conditions of Approval Compliance Table in the CEP
CG Report - Part C - Construction - Condition 9 - Community Engagement Plan	UNITY	(i) a procedure for receiving complaints on a 24 hour, seven days a week basis, during Project Works;	Community Engagement Sub-Plan	Refer to CG Conditions of Approval Compliance Table in the CEP
CG Report - Part C - Construction - Condition 9 - Community Engagement Plan	UNITY	(ii) a mechanism for notifying the community of the complaints procedure and how it may be accessed;	Community Engagement Sub-Plan	Refer to CG Conditions of Approval Compliance Table in the CEP
CG Report - Part C - Construction - Condition 9 - Community Engagement Plan	UNITY	(iii) a process for registering and handling complaints received, including a database for tracking of complaints and actions taken in response;	Community Engagement Sub-Plan	Refer to CG Conditions of Approval Compliance Table in the CEP
CG Report - Part C - Construction - Condition 9 - Community Engagement Plan	UNITY	(iv) a procedure for verifying complaints through monitoring and detailed investigation, and escalating and resolving verified complaints;	Community Engagement Sub-Plan	Refer to CG Conditions of Approval Compliance Table in the CEP
CG Report - Part C - Construction - Condition 9 - Community Engagement Plan	UNITY	(v) a procedure for complaints to be notified to the Community Relations Monitor, including information about the complaint and its resolution;	Community Engagement Sub-Plan	Refer to CG Conditions of Approval Compliance Table in the CEP
CG Report - Part C - Construction - Condition 9 - Community Engagement Plan	UNITY	(vi) access by the community to the Community Relations Monitor; and	Community Engagement Sub-Plan	Refer to CG Conditions of Approval Compliance Table in the CEP
CG Report - Part C - Construction - Condition 9 - Community Engagement Plan	UNITY	(vii) regular reporting via the monthly environmental report, to the community of complaints and corrective actions, maintaining appropriate confidentiality.	Community Engagement Sub-Plan	Refer to CG Conditions of Approval Compliance Table in the CEP
CG Report - Part C - Construction - Condition 9 - Community Engagement Plan	UNITY	(g) All information regarding complaints, including the information collected in Condition 9(f)(iii) must be made available to the Community Relations Monitor.	Community Engagement Sub-Plan	Refer to CG Conditions of Approval Compliance Table in the CEP
CG Report - Part C - Construction - Condition 10 - Hours of work		Condition 10. Hours of work		
CG Report - Part C - Construction - Condition 10 - Hours of work	UNITY	(a) Surface works for the Project are authorised to be undertaken within the hours of work set out in Table 1.	Section 4.1.3	
CG Report - Part C - Construction - Condition 10 - Hours of work	Multiple	Table 1. Construction hours	Section 4.1.3	
CG Report - Part C - Construction - Condition 10 - Hours of work	Not Applicable to UNITY	(b) Project Works that are underground, or in a ventilated acoustic enclosure, may be undertaken at any time provided the environmental outcomes are achieved.	N/A	This condition is related to the TSD scope of works
CG Report - Part C - Construction - Condition 10 - Hours of work	UNITY	(c) Project Works may be undertaken outside the hours set out in Table 1 where carried out because of an emergency that	Section 4.1.3	
CG Report - Part C - Construction - Condition 10 - Hours of work	UNITY	(i) is endangering the life or health of a person; or	Section 4.1.3	
CG Report - Part C - Construction - Condition 10 - Hours of work	UNITY	(ii) is endangering the structural safety of a building; or	Section 4.1.3	
CG Report - Part C - Construction - Condition 10 - Hours of work	UNITY	(iii) is endangering the operation or safety of community infrastructure that is not a building; or	Section 4.1.3	
CG Report - Part C - Construction - Condition 10 - Hours of work	UNITY	(iv) is required to prevent environmental harm	Section 4.1.3	
CG Report - Part C - Construction - Condition 10 - Hours of work	UNITY	(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.	Section 4.1.3	

Source	Responsibility	Condition Details	Addressed	Comments
CG Report - Part C - Construction - Condition 10 - Hours of work	UNITY	(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..	Section 4.1.3	
CG Report - Part C - Construction - Condition 10 - Hours of work	UNITY	(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.	Section 4.1.3	Unlikely applicable to Unity – Blasting currently not considered as part of the construction methodologies
CG Report - Part C - Construction - Condition 10 - Hours of work	UNITY	(g) Prior to blasting events, at least 48 hours' notice must be provided to persons who may be adversely affected.	Section 4.1.3	Unlikely applicable to Unity – Blasting currently not considered as part of the construction methodologies
CG Report - Part C - Construction - Condition 10A - Hours of work	Not Applicable to UNITY	<p>Sunday haulage for Roma Street Railway station worksite</p> <p>(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:</p> <p>(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</p> <p>(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</p> <p>(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.</p> <p>(b) Condition 10A ceases to have effect upon either:</p> <p>(i) the date that the tunnel boring machines reach the Northern Portal worksite or</p> <p>(ii) a date stated by the Coordinator-General in writing to the proponent.</p>	N/A	This condition is related to the TSD scope of works

Source	Responsibility	Condition Details	Addressed	Comments
CG Report - Part C - Construction - Condition 10B - Hours of work	Not Applicable to UNITY	<p>Sunday haulage for Albert Street Railway station worksite</p> <p>(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:</p> <p>(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:</p> <p>a) proposed commencement and completion date of Albert Street Sunday Spoil Haulage authorised works;</p> <p>b) details of any complaints received in relation to Roma Street Sunday Spoil Haulage authorised works;</p> <p>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</p> <p>(ii) the Coordinator-General has issued a notice to the Proponent that allows the Albert Street Sunday Spoil Haulage authorised works to proceed; and</p> <p>(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</p> <p>(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</p> <p>(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</p> <p>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;</p> <p>(b) Condition 10B ceases to have effect on the date stated by the Coordinator-General in writing to the Proponent.</p>	N/A	This condition is related to the TSD scope of works
CG Report - Part C - Construction - Condition 11 - Construction Noise and Vibration		Condition 11. Construction Noise and Vibration		
CG Report - Part C - Construction - Condition 11 - Construction Noise and Vibration	UNITY	(a) Project Works must aim to achieve the project noise goals for human health and well-being presented in Table 2.	Noise and Vibration Sub-Plan	
CG Report - Part C - Construction - Condition 11 - Construction Noise and Vibration	UNITY	Table 2. Noise goals (internal) for Project Works	Noise and Vibration Sub-Plan	
CG Report - Part C - Construction - Condition 11 - Construction Noise and Vibration	UNITY	Notes	Noise and Vibration Sub-Plan	
CG Report - Part C - Construction - Condition 11 - Construction Noise and Vibration	UNITY	1. All goals are internal noise levels for human health and well-being outcomes.	Noise and Vibration Sub-Plan	
CG Report - Part C - Construction - Condition 11 - Construction Noise and Vibration	UNITY	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).	Noise and Vibration Sub-Plan	
CG Report - Part C - Construction - Condition 11 - Construction Noise and Vibration	UNITY	3. Adjustments (adj) will be applied as outlined in the Department of Environment and Science Noise Measurement Manual Version 4 August 2013.	Noise and Vibration Sub-Plan	

Source	Responsibility	Condition Details	Addressed	Comments
CG Report - Part C - Construction - Condition 11 - Construction Noise and Vibration	UNITY	(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.	Section 3.3.2, Section 8.2, Attachment 4	
CG Report - Part C - Construction - Condition 11 - Construction Noise and Vibration	UNITY	(c) Project Works predicted to or monitored as generating noise levels more than 20dBA (LA eq 10min, adj) above the relevant goal in Table 2. are authorised to occur in a locality only:	Noise and Vibration Sub-Plan	
CG Report - Part C - Construction - Condition 11 - Construction Noise and Vibration	UNITY	(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;	Noise and Vibration Sub-Plan	
CG Report - Part C - Construction - Condition 11 - Construction Noise and Vibration	UNITY	(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;	Noise and Vibration Sub-Plan	
CG Report - Part C - Construction - Condition 11 - Construction Noise and Vibration	UNITY	(iii) where the mitigation measures are incorporated in a mitigation register and implemented prior to undertaking the Project Works;	Noise and Vibration Sub-Plan	
CG Report - Part C - Construction - Condition 11 - Construction Noise and Vibration	UNITY	(iv) between the hours 7.00am to 6.00pm Monday to Friday, with a respite period between 12.00noon and 2.00pm each day;	Noise and Vibration Sub-Plan	
CG Report - Part C - Construction - Condition 11 - Construction Noise and Vibration	UNITY	(d) The works authorised by Condition 10(d) are not subject to the requirements of Condition 11(c)(iv)	Noise and Vibration Sub-Plan	
CG Report - Part C - Construction - Condition 11 - Construction Noise and Vibration	UNITY	(e) Project Works must aim to achieve the construction vibration goals in Table 3.	Noise and Vibration Sub-Plan	<p>Not Applicable to</p> <ul style="list-style-type: none"> Intrusive works include but may not be limited to: <ul style="list-style-type: none"> Positive Public Utility Plant (PUP) locations identification Geotechnical Surveys Contaminated Land, Acid Sulphate Soils, and groundwater Surveys Enabling Works – select locations: <ul style="list-style-type: none"> Project site office establishment at Victoria Park, off Gilchrist Avenue in Herston Northern Portal from College Road to Mayne neck which consist of decommission redundant Normanby Roads and enable Holding Road with Turnback Mayne North Enabling Works which consist of decommissioning Mayne North Yard Establishment of site access in Victoria Park to the Rail Corridor Satellites and facilities – general alignment: <ul style="list-style-type: none"> RNA, O'Connell Terrace, Bowen Hills Tufton Street, Bowen Hills Mayne Yard rail office Victoria Park, Spring Hill Satellites and facilities – F2S and Southern Area: <ul style="list-style-type: none"> Dutton Park Station Salisbury Station Rocklea Station Moorooka Station/Clapham Yeerongpilly Station Yeronga Station Fairfield Station.
CG Report - Part C - Construction - Condition 11 - Construction Noise and Vibration	UNITY	Table 3. The construction vibration goals	Noise and Vibration Sub-Plan	

Source	Responsibility	Condition Details	Addressed	Comments
CG Report - Part C - Construction - Condition 11 - Construction Noise and Vibration	UNITY	Notes:	Noise and Vibration Sub-Plan	
CG Report - Part C - Construction - Condition 11 - Construction Noise and Vibration	UNITY	1. All residential receivers in the vicinity of the Project blasting sites are regarded as reinforced or framed structures (i.e. BS7385)	Noise and Vibration Sub-Plan	
CG Report - Part C - Construction - Condition 11 - Construction Noise and Vibration	UNITY	2. Residential sleep disturbance	Noise and Vibration Sub-Plan	
CG Report - Part C - Construction - Condition 11 - Construction Noise and Vibration	UNITY	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	Noise and Vibration Sub-Plan	
CG Report - Part C - Construction - Condition 11 - Construction Noise and Vibration	UNITY	4. If resonance is present, or if investigation to detect resonance were not able to be undertaken due to a lack of access	Noise and Vibration Sub-Plan	
CG Report - Part C - Construction - Condition 11 - Construction Noise and Vibration	UNITY	(e) 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.	Noise and Vibration Sub-Plan	
CG Report - Part C - Construction - Condition 11 - Construction Noise and Vibration	UNITY	(f) 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:	Noise and Vibration Sub-Plan	
CG Report - Part C - Construction - Condition 11 - Construction Noise and Vibration	UNITY	(i) between the hours 7.00am to 6.00pm Monday to Friday, with a respite period between 12.00noon and 2.00pm each day; or	Noise and Vibration Sub-Plan	
CG Report - Part C - Construction - Condition 11 - Construction Noise and Vibration	UNITY	(ii) in accordance with the mitigation measures developed in consultation with and agreed by Directly Affected Persons that are incorporated in the Mitigation Register.	Noise and Vibration Sub-Plan	
CG Report - Part C - Construction - Condition 12 - Property damage		Condition 12. Property Damage		
CG Report - Part C - Construction - Condition 12 - Property damage	UNITY	(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.	Section 6.4, Attachment 4 Noise and Vibration Sub-Plan	
CG Report - Part C - Construction - Condition 12 - Property damage	UNITY	(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:	Noise and Vibration Sub-Plan Non- Indigenous Cultural Heritage Sub-Plan Property Damage Mitigation subplan	
CG Report - Part C - Construction - Condition 12 - Property damage	UNITY	(i) advance communication with potentially Directly Affected Persons;	As above and Section 6.4 CEP	
CG Report - Part C - Construction - Condition 12 - Property damage	UNITY	(ii) procedures for building condition surveys both in advance of and following Project Works, including provision for consultation with property owners and occupants;	As above and CEP	
CG Report - Part C - Construction - Condition 12 - Property damage	UNITY	(iii) monitoring to be undertaken for potential impacts to property; and	As above and Attachment 4	
CG Report - Part C - Construction - Condition 12 - Property damage	UNITY	(iv) mitigation measures.	As above and CEP	

Source	Responsibility	Condition Details	Addressed	Comments
CG Report - Part C - Construction - Condition 12 - Property damage	UNITY	(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.	Non- Indigenous Cultural Heritage Sub-Plan Property Damage Mitigation subplan CEP	
CG Report - Part C - Construction - Condition 13 - Air Quality		Condition 13. Air quality		
CG Report - Part C - Construction - Condition 13 - Air Quality	UNITY	(a) Project Works must aim to achieve the goals in Table 4.	Air Quality Management Sub-Plan	
CG Report - Part C - Construction - Condition 13 - Air Quality	UNITY	Table 4. Air quality criteria and goals	Air Quality Management Sub-Plan	
CG Report - Part C - Construction - Condition 13 - Air Quality	UNITY	Notes:	Air Quality Management Sub-Plan	
CG Report - Part C - Construction - Condition 13 - Air Quality	UNITY	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	Air Quality Management Sub-Plan	
CG Report - Part C - Construction - Condition 13 - Air Quality	UNITY	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.	Air Quality Management Sub-Plan	
CG Report - Part C - Construction - Condition 13 - Air Quality	UNITY	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	Air Quality Management Sub-Plan	
CG Report - Part C - Construction - Condition 13 - Air Quality	UNITY	(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	Section 3.3.2, Section 8.2, Attachment 4 Air Quality Management Sub-Plan	
CG Report - Part C - Construction - Condition 14 - Traffic and Transport		Condition 14. Traffic and transport		
CG Report - Part C - Construction - Condition 14 - Traffic and Transport	UNITY	(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.	Construction Activities Management Sub Plan	
CG Report - Part C - Construction - Condition 14 - Traffic and Transport	UNITY	(b) During construction workforce car parking must be provided and managed to avoid workforce parking on local streets.	Construction Activities Management Sub-Plan	
CG Report - Part C - Construction - Condition 14 - Traffic and Transport	UNITY	(c) Access for emergency services to project worksites and adjoining properties must be maintained throughout the construction phase.	Construction Activities Management Sub-Plan	
CG Report - Part C - Construction - Condition 14 - Traffic and Transport	UNITY	(d) Practicable access is maintained to adjacent properties throughout the construction phase.	Construction Activities Management Sub-Plan	

Source	Responsibility	Condition Details	Addressed	Comments
CG Report - Part C - Construction - Condition 14 - Traffic and Transport	UNITY	(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.	Construction Activities Management Sub-Plan	<p>Partially applicable as most of the Spoil the RIS alliance will generate is or is likely to be contaminated and therefore is not deemed spoil as per the definition of the Outline Spoil Placement Management Plan</p> <p>Not Applicable to</p> <ul style="list-style-type: none"> Intrusive works include but may not be limited to: <ul style="list-style-type: none"> Positive Public Utility Plant (PUP) locations identification Geotechnical Surveys Contaminated Land, Acid Sulphate Soils and groundwater Surveys Enabling Works – select locations: <ul style="list-style-type: none"> Project site office establishment at Victoria Park, off Gilchrist Avenue in Herston Northern Portal from College Road to Mayne neck which consist of decommission redundant Normanby Roads and enable Holding Road with Turnback Mayne North Enabling Works which consist of decommissioning Mayne North Yard Biomedical Technology Services (BTS) building demolition near Victoria Park and establishment of site access to the Rail Corridor Satellites and facilities – general alignment: <ul style="list-style-type: none"> RNA, O'Connell Terrace, Bowen Hills Tufton Street, Bowen Hills Mayne Yard rail office Victoria Park, Spring Hill Satellites and facilities – F2S and Southern Area: <ul style="list-style-type: none"> Dutton Park Station Salisbury Station Rocklea Station Moorooka Station/Clapham Yeerongpilly Station Yeronga Station Fairfield Station.
CG Report - Part C - Construction - Condition 14 - Traffic and Transport	Delivery Authority	(f) The Outline Environmental Management Plan must be supported by a road safety assessment for the spoil haulage route.	N/A	<p>Construction Spoil is defined in the Outline Spoil Placement Management Plan as <i>any soil or rock removed from a Project worksite or work area as a consequence of undertaking Project Works. Construction spoil does not include any material, such as liquid or solid waste material, contaminated soil or water, or hazardous or toxic material, that is subject to approvals or permitting requirements for its handling or removal</i></p> <p>Most of the Spoil that the RIS Alliance will generate comes from a Brownfield Railway Corridor. May it be ballast or subsoils, most of the material is deemed contaminated and will require lawful disposal to appropriately licensed landfills.</p> <p>Partially applicable as most of the Spoil the RIS alliance will generate is or is likely to be contaminated and therefore is not deemed spoil as per the definition of the Outline Spoil Placement Management Plan</p>
CG Report - Part C - Construction - Condition 14 - Traffic and Transport	UNITY	(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.	Construction Activities Management Sub-Plan	<p>The CAMP is supported by subplans to the Construction Management Plan (CTMP, HMP, CTMP subplans which will be provided to the Environmental Monitor prior to major haulage and delivery works commencing)</p>

Source	Responsibility	Condition Details	Addressed	Comments
CG Report - Part C - Construction - Condition 14 - Traffic and Transport	UNITY	(h) The Construction Traffic Management Plan must include:	Construction Activities Management Sub-Plan	
CG Report - Part C - Construction - Condition 14 - Traffic and Transport	UNITY	(i) the proposed access to worksites, with local or minor roads only used where unavoidable to access a project worksite;	Construction Activities Management Sub-Plan	
CG Report - Part C - Construction - Condition 14 - Traffic and Transport	UNITY	(ii) a process for advance notice to Directly Affected Persons and local communities within the vicinity of the spoil haulage routes and worksite accesses;	CEP	
CG Report - Part C - Construction - Condition 14 - Traffic and Transport	UNITY	(iii) local traffic management measures developed in consultation with Brisbane City Council for key intersections:	Construction Activities Management Sub-Plan	
CG Report - Part C - Construction - Condition 14 - Traffic and Transport	UNITY	(A) in Bowen Hills including Bowen Bridge Road, College Road and O'Connell Terrace;	Construction Activities Management Sub-Plan	
CG Report - Part C - Construction - Condition 14 - Traffic and Transport	Not Applicable to UNITY	(B) in the CBD including Albert Street, Charlotte Street, Elizabeth Street and Roma Street;	N/A	This condition affects the TSD Scope of Works
CG Report - Part C - Construction - Condition 14 - Traffic and Transport	Not Applicable to UNITY	(C) at Woolloongabba including Leopard Street, Stanley Street, Vulture Street and Main Street;	N/A	This condition affects the TSD Scope of Works
CG Report - Part C - Construction - Condition 14 - Traffic and Transport	Not Applicable to UNITY	(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.	N/A	This condition affects the TSD Scope of Works
CG Report - Part C - Construction - Condition 14 - Traffic and Transport	UNITY	(iv) specific traffic management measures developed in consultation with other key stakeholders, including:	CEP Construction Activities Management Sub-Plan	
CG Report - Part C - Construction - Condition 14 - Traffic and Transport	Not Applicable to UNITY	(A) the department administering the Economic Development Act 2012 with regards traffic management in the Queens Wharf Brisbane priority development area;	N/A	This condition affects the TSD Scope of Works
CG Report - Part C - Construction - Condition 14 - Traffic and Transport	UNITY	(B) Queensland Rail about maintaining access to railway stations; and	Construction Activities Management Sub-Plan	
CG Report - Part C - Construction - Condition 14 - Traffic and Transport	UNITY	(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.	Construction Activities Management Sub-Plan	
CG Report - Part C - Construction - Condition 14 - Traffic and Transport	UNITY	(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.	Construction Activities Management Sub-Plan	
CG Report - Part C - Construction - Condition 15 - Water Quality		Condition 15. water Quality		
CG Report - Part C - Construction - Condition 15 - Water Quality	Not Applicable to UNITY	(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; 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.	N/A	This condition affects the TSD Scope of Works

Source	Responsibility	Condition Details	Addressed	Comments
CG Report - Part C - Construction - Condition 15 - Water Quality	Not Applicable to UNITY	(a) Discharge of groundwater from Project Works must comply with (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.	N/A	This condition affects the TSD Scope of Works
CG Report - Part C - Construction - Condition 15 - Water Quality	UNITY	(a) 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.	Contaminated Land Management Sub-Plan Waterways and Water Quality Management Sub-Plan Acid Sulfate Soils Management Sub-Plan Erosion and Sediment Control Sub-Plan	
CG Report - Part C - Construction - Condition 15 - Water Quality	UNITY	(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.	Contaminated Land Management Sub-Plan Erosion and Sediment Control Sub-Plan Section 3.3.2, Section 8.2, Attachment 4 Acid Sulfate Soils Management Sub-Plan	
CG Report - Part C - Construction - Condition 16 - Water Resources		Condition 16. Water resources		
CG Report - Part C - Construction - Condition 16 - Water Resources	UNITY	(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.	Contaminated Land Management Sub-Plan Waterways and Water Quality Management Sub-Plan Acid Sulfate Soils Management Sub-Plan	the predictive modelling has been completed and presented in the project wide factual groundwater report.
CG Report - Part C - Construction - Condition 16 - Water Resources	UNITY	(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.	Contaminated Land Management Sub-Plan Waterways and Water Quality Management Sub-Plan Acid Sulfate Soils Management Sub-Plan	minimum applicability to the RIS Scope
CG Report - Part C - Construction - Condition 16 - Water Resources	Not Applicable to UNITY	(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.	N/A	This condition affects the TSD Scope of Works as detailed in the factual groundwater report.
CG Report - Part C - Construction - Condition 17 - Surface Water		Condition 17. Surface Water		
CG Report - Part C - Construction - Condition 17 - Surface Water [PART]	Not Applicable to UNITY	(a) Project Works, and worksites, must be designed and implemented to avoid inundation from stormwater due to a 2 year (6hr) ARI rainfall event [...].	N/A	This condition is relevant for tunnelling and sub-surface works associated with deep shafts excavations
CG Report - Part C - Construction - Condition 17 - Surface Water [PART]	Not Applicable to UNITY	(a) Project Works, and worksites, must be designed and implemented to avoid inundation from [...] flood waters due to a 5 year ARI rainfall event.	N/A	Refer condition 17(b) for applicability to RIS Scope of works

Source	Responsibility	Condition Details	Addressed	Comments
CG Report - Part C - Construction - Condition 17 - Surface Water	UNITY	(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)	Flood Management Plan	Only applicable to in stream works in Breakfast creek and Moolabin Creek
CG Report - Part C - Construction - Condition 17 - Surface Water	UNITY	(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.	Flood Management Plan	Only applicable to in stream works in Breakfast creek and Moolabin Creek
CG Report - Part C - Construction - Condition 17 - Surface Water	UNITY	(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.	Erosion and Sediment Control Sub-Plan	To the extent that is reasonable and practicable
CG Report - Part C - Construction - Condition 18 - ESC		Condition 18. Erosion and sediment control		
CG Report - Part C - Construction - Condition 18 - ESC	UNITY	(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.	Erosion and Sediment Control Sub-Plan Waterways and Water Quality Management Sub-Plan	
CG Report - Part C - Construction - Condition 19 - Acid SS		Condition 19. Acid sulphate soils		
CG Report - Part C - Construction - Condition 19 - Acid SS	UNITY	(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.	Acid Sulphate Soils Management Sub-Plan	
CG Report - Part C - Construction - Condition 20 - Landscape and Open space		Condition 20. Landscape and open space		To the extent this is relevant to construction activities
CG Report - Part C - Construction - Condition 20 - Landscape and Open space	UNITY	(a) Project Works are designed and implemented to minimise impacts on landscape and open space values.	Landscape and Rehabilitation Sub-Plan	–
CG Report - Part C - Construction - Condition 20 - Landscape and Open space	UNITY	(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.	Landscape and Rehabilitation Sub-Plan	
CG Report - Part C - Construction - Condition 20 - Landscape and Open space	UNITY	(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.	Nature Conservation Sub-Plan	–
CG Report - Part C - Construction - Condition 20 - Landscape and Open space	UNITY	(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.	Landscape and Rehabilitation Sub-Plan	–
CG Report - Part C - Construction - condition 21 - Workspace rehabilitation		Condition 21. Worksite rehabilitation		–

Source	Responsibility	Condition Details	Addressed	Comments
CG Report - Part C - Construction - condition 21 - Workspace rehabilitation	UNITY	(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.	Landscape and Rehabilitation Sub-Plan	
CG Report - Part C - Construction - condition 21 - Workspace rehabilitation	UNITY	(b) All other worksites required to support commissioning activities must be rehabilitated as soon as practicable on completion of commissioning or sooner where possible.	Landscape and Rehabilitation Sub-Plan	
CG Report - Part C - Construction - condition 21 - Workspace rehabilitation	UNITY	(c) Rehabilitation must address soil erosion and sedimentation, dust nuisance and landscape and visual impact.	Landscape and Rehabilitation Sub-Plan	
CG Report - Part C - Construction - condition 21 - Workspace rehabilitation	UNITY	(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.	Landscape and Rehabilitation Sub-Plan	
CG Report - Schedule 2. Environmental Design Requirements – Condition 7. Climate change and sustainability	UNITY	(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, programming to avoid rework or redundant work).	Section 2.5.1	
CG Report - Schedule 2. Environmental Design Requirements – Condition 11. Waste	UNITY	(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	Section 2.5.1	

Attachment 4 Construction Environmental Monitoring Program

EMP Sub-Plan	Activity/Element	Purpose	Monitoring Procedure	Locations	Responsibility	Frequency
Acid Sulfate Soils	Quantitative Monitoring / Release to Surface Waters	Compliance with Imposed Condition 18 Compliance with EMS	Surface water and impounded waters testing regime for acid sulfate soils parameters	Refer ASSMP and relevant supplementary ASSMP	Environment team	Prior to dewatering to receiving waters under an approved Permit to Dewater
	Quantitative Monitoring / Land Release	Compliance with EMS	Impounded water testing regime for acid sulfate soils parameters	Refer ASSMP and relevant supplementary ASSMP	Environment team	Prior to dewatering to Land under an approved Permit to Dewater
	Qualitative monitoring / Soils	Compliance with Imposed Condition 19	Visual site inspections of excavated stockpiled materials, excavations, lime stockpiles, ASS treatment pads.	Refer ASSMP and relevant supplementary ASSMP	1. Environment team 2. Area supervisor/superintendent	1. Weekly scheduled inspections 2. Daily inspections
	Quantitative monitoring / Soils	Compliance with Imposed Condition 19	Verification sampling of treated acid sulphate soils to be re-used (<i>no verification sampling required for treated soils lawfully disposed of at a licensed landfill</i>)	Refer relevant supplementary ASSMP	Environment Team	As required
Air Quality	Semi Quantitative Assessment / Works Planning	Compliance with Imposed Condition 4c(ii)	Predictive assessment of air quality impacts associated with particulate matters (TSP, PM10 and deposited dust).	Site wide	Air quality specialist	Prior to Relevant Project Works Commencing
		Support Compliance with Imposed Condition 13(b)	Monitoring of potential adverse weather conditions (e.g. wind).	Active worksites	Environment team	Three days look ahead in daily prestart
	Qualitative Monitoring / Site Inspection	Compliance with Imposed Condition 13(b)	Visual site inspections of exposed areas and stockpiles.	Active worksites	Area supervisor/superintendent	Daily when working
	Qualitative Monitoring / Scheduled Inspections	Compliance with Imposed Condition 13(b)	Visual site inspections undertaken during scheduled inspections.	Active worksites	Environment team	Weekly
	Qualitative or Quantitative Monitoring / Complaints	Compliance with Imposed Condition 9	Further investigations to be undertaken in the event of a complaint related to nuisance dust.	Site wide	Communications and Stakeholder Engagement Team (CSET) Environment team with support from SQP as required	As triggered
	Quantitative Monitoring / Air Quality Goals	Compliance with Imposed Condition 13(b)	Particulate matter monitoring to demonstrate compliance with the TSP, deposited dust and PM10 construction criteria which could be mobilised during high risk activities Exact locations of each monitoring station to be confirmed at detailed design upon review of the prevalent wind conditions and nearest Sensitive Places	Refer AQMP and relevant supplementary Air Quality Assessment Report	Environment team	TSP and PM10 – on a continuous basis initially to validate model and then as required if monitoring data demonstrates compliance with criteria Regular (typically weekly or fortnightly) data downloads would be required Deposited dust – monthly
Air Quality, Erosion and Sediment Control Weather	Semi Quantitative Assessment / Works Planning	Support Compliance with Imposed Condition 13(b)	Weather forecast is reviewed, and key climatic conditions recorded and distributed site wide (e.g. rain, wind, temperatures).	Active worksites	Environment team	Three days look ahead in daily prestart
		Support compliance with Imposed Condition 18				
	Quantitative monitoring / Routine records	Support Compliance with Imposed Condition 13(b) Support compliance with Imposed Condition 18	Daily weather records at key strategic locations along the alignment using a weather station The following parameters are to be recorded at sufficient interval to support compliance assessment of air quality and surface water quality results: rainfall, humidity, temperature, wind speed, wind direction.	Active worksites – key areas Mayne Yard Exhibition Station Northern Corridor (incl Herston Compound) Clapham Yard F2S station as required Southern Area as required	Environment team	Daily when working

EMP Sub-Plan	Activity/Element	Purpose	Monitoring Procedure	Locations	Responsibility	Frequency
Indigenous and Non Indigenous Heritage	Qualitative Monitoring / Site Inspection Protected Heritage Values	Compliance with the Heritage Approvals (s71; s74, GEC) for Places listed on the Qld Heritage Register Compliance with the CHMPs	Visual site inspections of items of heritage significance marked as requiring protection (e.g. as per Heritage Approvals Conditions), i.e. inspection of exclusion zone around a protected structure or heritage value (e.g. artefact scatter) such as barricading and signage.	<ul style="list-style-type: none"> State Heritage: <ul style="list-style-type: none"> Brisbane Exhibition Grounds Victoria Park Aboriginal Heritage <ul style="list-style-type: none"> Breakfast Creek Victoria Park Clapham Yard Moolabin Creek Moolabin Feeder Station 	1. Environment team 2. Area supervisor/superintendent	1. Weekly scheduled inspections 2. Daily inspections
	Quantitative Monitoring / Heritage building susceptible to vibration impact	Compliance with Imposed Condition 12 Compliance with the State Heritage Approval for the Brisbane Exhibition Grounds	Refer Property Damage Sub-Plan	Refer Property Damage Sub-Plan	1. Environment team	Refer Property Damage Sub-Plan

EMP Sub-Plan	Activity/Element	Purpose	Monitoring Procedure	Locations	Responsibility	Frequency
Noise and Vibration NOISE	Semi Quantitative Assessment / Works Planning	Compliance with Imposed Condition 4c(ii)	Predictive assessment of noise impacts at Sensitive Places	Site wide	Acoustics specialist	Prior to Relevant Project Works Commencing
		Compliance with Imposed Condition 4c(ii) Support Compliance with Imposed Condition 10d, 10e and 11c	Predictive modelling of noise levels to be generated by specific construction activities with high risk of generating noise, including reverberated noise (e.g. piling) or to be undertaken out of standard hours (e.g. night works).	As relevant	Environment team	As required
	Qualitative Monitoring / Scheduled Inspections	Compliance with Imposed Condition 11b	Visual site inspections undertaken during scheduled inspections may be supplemented by spot checking of noise levels being generated at the source During site inspection records of activities being undertaken listing key large equipment being used and general location equipment The inspections would ensure that appropriate noise controls (e.g. barricading) are being implemented and are effective.	Active worksites	Environment team	Weekly
	Qualitative or Quantitative Monitoring / Complaints	Compliance with Imposed Condition 9	Further investigations to be undertaken in the event of a complaint related to nuisance noise Attended or unattended measurements as appropriate to identify and measure the source in question. Refer Noise and Vibration Subplan attachments 2 and 5 for further details	As appropriate to address the particular complaint	CSET Environment team with support from SQP as required	Within 24 hours if no monitoring already been undertaken in the area
	Quantitative Monitoring / Nuisance and Model Verification	Compliance with Imposed Condition 11b Inform future predictive assessments undertaken as per Imposed Condition 4c(ii) Inform / Support ISC submission	Construction Monitoring at Sensitive Places / DAPs - Model Verification Attended or unattended measurements to quantify and qualify construction noise emissions using a calibrated sound level meter capable of measuring LA90, LAeq, LA10 and LA1 statistical noise levels in 15 minute intervals One 15 minute sample per survey location is generally sufficient Extraneous noise (e.g. cars, trains etc.) should be excluded from the measurements. Sources contributing to the noise levels are to be noted.	Refer relevant predictive noise and vibration assessment report Where there are multiple DAPs identified monitoring will occur at the DAP the most likely to be affected	Environment team with support from SQP as required	Typically <ul style="list-style-type: none"> at the commencement of all noise intensive construction activities within 10dBA of the upper noise goals and when the upper noise goals are predicted to be exceeded
		Inform future predictive assessments undertaken as per Imposed Condition 4c(ii) Inform / Support ISC submission	Buffer Distance Test - Model Verification Attended or unattended measurements to quantify and qualify construction noise emissions using a calibrated sound level meter capable of measuring LA90, LAeq, LA10 and LA1 statistical noise levels in 15 minute intervals One 15 minute sample per survey location is generally sufficient Extraneous noise (e.g. cars, trains etc.) should be excluded from the measurements. Sources contributing to the noise levels are to be noted.	At relevant intervals to compare against the predictive assessment findings	Environment team with support from SQP as required	As nominated by the environmental team but generally limited to particularly noisy works such as tamping, rock excavation, etc. Such monitoring will typically be conducted when Construction Monitoring at Sensitive Places / DAP also is occurring
		Inform future predictive assessments undertaken as per Imposed Condition 4c(ii)	Plant Noise Audits Attended measurements using a calibrated sound level meter capable of measuring LAeq, LA10, LA1 and LMax statistical noise levels Select the items of plant which appear to be the most dominant sources of noise. Measure noise emissions under conditions of maximum noise normally occurring for that source. For most noise sources, a one minute sample will be satisfactory, although sampling may be extended up to 15 minutes for sources varying greatly over time.	On site, typically at 7 to 10m from the item of plant (if safe to do so) in the direction of dominant noise emission. Closer to the source if other sources prevent measurement at this distance	Environment team with support from SQP as required	As required but generally limited to particularly noisy plant items such as piling rigs, hydraulic hammer, haul trucks etc.

EMP Sub-Plan	Activity/Element	Purpose	Monitoring Procedure	Locations	Responsibility	Frequency
Noise and Vibration VIBRATION	Semi Quantitative Assessment / Works Planning	Compliance with Imposed Condition 4c(ii) Compliance with the State Heritage Approval for the Brisbane Exhibition Grounds	Predictive modelling of vibration levels to be generated during construction.	Site wide	Acoustics specialist	Prior to Project Works Commencing
		Compliance with Imposed Condition 4c(ii) Support Compliance with Imposed Condition 10d, 10e, 11f, 11g and 12a Compliance with the State Heritage Approval for the Brisbane Exhibition Grounds	Predictive modelling of vibration levels to be generated by specific construction activities with high risk of generating vibration (e.g. blasting) or to be undertaken out of standard hours (e.g. night works).	As relevant	Environment team	As required
	Quantitative monitoring Baseline – DTMR/Clem7 and subsequent Quantitative Monitoring during works	Compliance with PSTR – Annexure C - s7.5.3(f) and Transurban Requirements	Generally in accordance with DTMR Standard Design Criteria for Bridges and Other Structures or as agreed with Transurban	Clem7/O'Connell Terrace works	Environment team with support from SQP	Prior to Project Works Commencing in the VolumeClem7
	Qualitative Monitoring / Scheduled Inspections	Compliance with Imposed Condition 11b & 12b Compliance with the State Heritage Approval for the Brisbane Exhibition Grounds	Visual site inspections undertaken during scheduled inspections During site inspection records of activities being undertaken listing key large equipment being used that could be the source of vibration and general location equipment The inspections would ensure that appropriate vibration controls (e.g. offset distances) are being implemented and are effective.	Active worksites	Environment team	Weekly
	Qualitative or Quantitative Monitoring / Complaints	Compliance with Imposed Condition 9	Attended or unattended measurements as appropriate to identify and measure the source in question.	As appropriate to address the particular complaint	Environment team with support from SQP	Within 24 hours is no monitoring already been undertaken in the area
	Quantitative Monitoring / Nuisance, Property Damage and Model Verification	Compliance with Imposed Condition 11b & 12b Inform future predictive assessments undertaken as per Imposed Condition 4c(ii) Compliance with the State Heritage Approval for the Brisbane Exhibition Grounds Inform / Support ISC submission	Blasting activities – minimum of two vibration and blast overpressure monitoring locations Measurements using a calibrated instrument capable of measuring peak particle velocity in three axes (i.e. vertical, longitudinal and transverse) and blast overpressure. The results of the blast monitoring would enhance the input data fed into the predictive modelling process.	Exhibition Station All efforts should be made to locate the monitors at the nearest receivers to the blast site Monitoring should always be undertaken at a heritage listed structure if close to blasting.	CSET Environment team with support from SQP as required	During each blast throughout the blasting phase of the project
			Construction Monitoring at Sensitive Places / DAPs - Model Verification Unattended Vibration Monitoring – this monitoring will to address the initial and ongoing monitoring of emissions from construction to assist in planning of excavation and construction works. Worksites where exceedances are predicted to occur at occupied sensitive places, particularly for out of hours works (human comfort) or where exceedances are predicted to occur at heritage listed structures.	At foundation of potentially affected structure For heritage-listed structures, the key area is the RNA Exhibition Grounds and immediate surroundings Refer relevant predictive noise and vibration assessment report for more details (Human comfort) Refer to the Property Damage Mitigation subplan for more details relating to Structures	Environment team with support from SQP	Typically for Human Comfort <ul style="list-style-type: none"> at the commencement of all vibration intensive construction activities where predicted levels are > 5mm/s or within 1 mm/s of the UL, whichever is the highest. and when the upper vibration goals are predicted to be exceeded For Buildings – refer to the Property Damage Mitigation subplan
	Quantitative monitoring – DTMR/Clem7 Vibration Goals	Compliance with PSTR – Annexure C - s7.5.3(f) and Transurban Requirements	Generally, in accordance with DTMR Standard Design Criteria for Bridges and Other Structures or as agreed with Transurban	Clem7/O'Connell Terrace works	Environment team with support from SQP	During the duration of works at O'Connell Terrace within the Volumetric Limit of Clem 7

EMP Sub-Plan	Activity/Element	Purpose	Monitoring Procedure	Locations	Responsibility	Frequency
Land Management	Known Contaminated Land Sites (EMR/CLR listing) – Soils – Prior to Disposal or re-use	Legal Compliance inform / Support ISC submission	Classification Testing of contaminated land material to be disposed of offsite must be undertaken at a suitable frequency to comply with statutory requirements.	As per Contaminated Land Management Plan	Environment team/NATA accredited laboratory for the selected analytes Support from SQP as required	Prior to disposal or re-use of material
	Suspected Contaminated Land	GED	If construction works uncover an area of unknown, suspected contamination, all work within 50m of the contamination must cease and the suspected contamination reported to the UNITY Environmental Representative immediately.	As relevant	Environment team Superintendent and SQP as required	As required
	Unexploded Ordnances	Incident Prevention	If construction works uncover potential Unexploded Ordnances (UXOs) all work within 50m must cease and the suspected UXOs must notified immediately to the UNITY WHS Manager and environmental representative.	As relevant	WHS Manager Environment Manager	As required
	ERSED Compliance	Compliance with Imposed Condition 18	ERSED structures are monitored for compliance with the area ERSED plan during weekly inspections Any non-conformances are identified in the Environment Action Register Erosion and sediment control devices must be cleared, repaired or replaced whenever inspections show signs of non-compliance or ineffective capability or capacity.	Active worksites	1. Environment team 2. Area supervisor/superintendent	1. Weekly, before predicted rain and after runoff causing rain event (refer Water Management) 2. Daily
	Topsoil Management	Inform / Support ISC submission	Inspections of areas that have been stripped of topsoil to ensure sufficient topsoil is salvaged and retained on site for rehabilitation purposes For long term topsoil stockpiles this will include an assessment of temporary cover requirements to mitigate the loss of topsoil This will include progress of the works and any additional maintenance required. Reinstatement progress will be supported by photographic evidence.	Active worksites with salvageable topsoil	1. Environment team 2. Area supervisor/superintendent	1. Weekly scheduled inspections 2. Daily inspections
	Rehabilitation Monitoring	Legal Compliance with relevant acts on secondary Approvals' Condition	As per the relevant rehabilitation plans approved by the relevant agencies (e.g. Marine Plants Rehabilitation Plan with DAF, Victoria Park Replanting Plan with DES).	Sites being rehabilitated	1. Environment team 2. Area supervisor/superintendent	1. Weekly scheduled inspections 2. Daily inspections
Land Management Dangerous Goods and Hazardous Materials	Storage of Hazardous Substances	Incident Prevention	Inspection at fuel and chemical storage areas to ensure compliance with AS. Action as necessary.	Active worksites	1. WHS team 2. Area supervisor/superintendent	Weekly
			Assess the walls and floor of storage bund for cracking Rectify any cracks immediately as these provide a 'weak point' for materials to leak through.	Active worksites	1. WHS team 2. Area supervisor/superintendent	Maximum monthly
			Check bunded areas for visible pollution and arrange for the safe and correct removal and disposal of any visible pollution immediately.	Active worksites	1. WHS team 2. Area supervisor/superintendent	Weekly and after rain
	Spill Kits	Incident response preparedness	Random inspections of spill kit locations are undertaken by the environment team and foreman. Monthly inspections must ensure that spill kits are restocked and maintained.	Active worksites	1. Environment team 2. Area supervisor/superintendent	Maximum monthly
	Incidents – Spills	Incident response	Maintain regulated waste tracking certificates and waste disposal receipts as a verification of type and amount of waste hydrocarbons and chemicals removed from site. This waste tracking documentation is to be maintained in the waste tracking register.	Monthly As required – maximum every 7 days	1. Environment team 2. Supervisor	1. Monthly 2. as required – maximum every 7 days
			Check that all fuel and oil spills are cleaned up immediately using the available spill kits and in accordance with the instructions on the relevant SDS and site rules.	As relevant	1. Environment team 2. Supervisor	As required
			Communicate all spills to the environment team immediately.	As relevant	1. Supervisor 2. Superintendent	As required

EMP Sub-Plan	Activity/Element	Purpose	Monitoring Procedure	Locations	Responsibility	Frequency
Biosecurity	Excavations / Soil Movement	GBO	The worksite and surrounding areas are monitored for fire ant nests and evidence of fire ants	Fairfield to Salisbury Southern Area	Environment Team Trained supervisors	Prior to movements off-site
	Machinery/Plant Movement	GBO	All machinery/plant/equipment will be inspected and declared weed seed and Fire Ant free prior to arriving on site using the Plant and Equipment Clean Down Declaration	Active worksites	Owner of the machinery/plant/equipment	Prior to arrival on site
	Machinery/Plant Movement	GBO	All machinery/plant/equipment will be cleaned down prior to movement off any of the sites within Biosecurity Zone 2 and the Machinery Clean Down Checklist is to be used	Fairfield to Salisbury Southern Area	Operator of the machinery/plant/equipment	Prior to movements off-site
	Pre Clearance Inspection	GBO	RIFA visual inspection and documentation (written statement) required to be undertaken a min. 14 days prior to soil disturbance	Fairfield to Salisbury Southern Portal	Environment Team	14 days prior to soil disturbance
	Weeds and Pest	GBO	Weekly inspections of active work areas, vehicles and equipment, for the presence of prohibited and restricted weeds and/or pest animals (particularly RIFA) activity.	Active worksites Key areas for RIFA along F2S	Environment team	Minimum Weekly
	Stockpiling soil prior to planned movement offsite Soil Disturbance	GBO	Stockpiled soil shall be visually inspected and documented for evidence of vigorous and thorough turning of the soil to ensure it is disturbed every 21 days and 24 hrs prior to moving the material to another location	Fairfield to Salisbury Southern Area	Environment Team	Minimum Weekly
	Stockpiling soil prior to planned movement offsite Soil Storage	GBO	Stockpiled soil shall be visually inspected and documented for evidence of stockpiling on a surface that is considered fire ant resistant.	Fairfield to Salisbury Southern Area	Environment Team	Minimum Weekly
Water Management	Surface Water Monitoring – Routine (qualitative and supported by quantitative as required)	Inform / Support ISC submission	<p>Inspections will target all waterways</p> <p>minimum monitoring regime – visual monitoring supported by photographic evidence and supplemented with in situ monitoring for pH, EC, TDS, DO, turbidity</p> <p>This may be supplemented by elaborate samples for TSS, total nitrogen as N, nitrogen oxides, ammonia as N, organic Nitrogen, total phosphorus, filterable reactive phosphorus (FRP) to support background water quality data build-up</p> <p>Additional Routine Surface Water Monitoring Regime (locations and analytes) may be required based on the detailed design findings associated with ASS and/or contaminated land.</p>	<p>3 locations consisting of 1 upstream, 1 downstream and 1 at workfront at the following sites</p> <ul style="list-style-type: none"> Enoggera/Breakfast Creek Moolabin Creek Rocky Waterholes Creek. <p>2 locations consisting of 1 discharge and 1 downstream</p> <ul style="list-style-type: none"> Stable Swamp Creek Barrambin (York's Hollow). 	Environment team	Bi-annually (Wet and Dry season)
	Surface Water Monitoring – Pre Rain (qualitative and supported by quantitative as required)	GED	<p>Inspections will target cleared high risk areas (e.g. slopes >6%, slopes leading to waterways, active worksites in or in the vicinity of waterways) typically 24 hours before a forecast event of 70% chance of 20mm or more (<i>where conditions permit safe access</i>)</p> <p>Minimum monitoring regime – visual monitoring supported by photographic evidence</p> <p>It may be supplemented with in situ monitoring and laboratory samples as per the routine water monitoring regime at the discretion of the environment team.</p>	<p>Typically at workfront at the following sites when actives works</p> <ul style="list-style-type: none"> Enoggera/Breakfast Creek Moolabin Creek Rocky Waterholes Creek. <p>2 locations consisting of 1 discharge and 1 downstream</p> <ul style="list-style-type: none"> Stable Swamp Creek Barrambin (York's Hollow). 	Joint environment team and site supervisor	As required
	Weather and tides forecast (Flood Management)	Incident Prevention Compliance with Imposed Condition 17	Monitoring of the Bureau of Meteorology	Breakfast Creek Moolabin Creek	Environment Team	Daily when no risk or low-level risk triggered
	Initial Flood Warning Trigger (Flood Management)	Incident Prevention Compliance with Imposed Condition 17	Monitoring of the online Flood Warning Trigger service (BCC and BoM)	Breakfast Creek Moolabin Creek	Environment Team Project Engineer	Email subscription to BCC flood warning alerts
	Weather and Tides Forecast (Flood Management)	Incident Prevention Compliance with Imposed Condition 17	Monitoring of the Bureau of Meteorology	Breakfast Creek Moolabin Creek	Environment Team	3 hourly when Medium or high-level risk triggered

EMP Sub-Plan	Activity/Element	Purpose	Monitoring Procedure	Locations	Responsibility	Frequency
	Flood Levels (Flood Management)	Incident Prevention Compliance with Imposed Condition 17	Monitoring of the online Flood Warning Trigger service (BCC and BoM)	Breakfast Creek Moolabin Creek	Environment Team Project Engineer	3 hourly monitoring when Medium or High-level risk triggered
	Surface Runoff – Post Rain (qualitative and supported by quantitative as required)	Compliance with Imposed Condition 18 and Imposed Condition 15(a)	<p>Inspection following rain event</p> <p>Following a rainfall event that has the potential or has caused run off from the construction areas</p> <p>This will be typically following any rainfall event exceeding 20 to 25 mm over 24 hours, however storm events during the high risk period of the year (November to March) of lesser amounts but higher intensity may cause run-off – as such due care should be taken to assess all active areas post rainfall once safe access to site is restored</p> <p>Sites should be inspected within 50 to 100m upstream and 50 to 100m downstream (from the boundary of the construction area) of any waterway crossing where safe to do so.</p> <p>A site assessment with visual monitoring will be undertaken in order to determine if in-situ water quality monitoring is necessary. Visual monitoring will in the first instance confirm information regarding water flows within the waterway</p> <p>The visual assessment will also be undertaken to confirm the presence of potential contaminants affecting water quality. If contaminants are observed (e.g. hydrocarbon sheen) or if there is a visible difference in water quality when comparing upstream and downstream monitoring points, water quality sampling will then be undertaken. The visual assessment will assess gross increases in turbidity, litter, hydrocarbons or the movement of any coarse sediment into the waterway. The assessment will also note any potential offsite impacts that may be adversely affecting water quality within the construction area</p> <p>In the event that visual monitoring indicates any impacts to water quality then water quality sampling will be undertaken with a calibrated handheld water quality monitoring device. At a minimum it will measure pH, EC and turbidity. Water quality parameters will then be recorded for both the upstream and downstream locations alongside the construction area</p> <p>The field sampling will initially be supplemented by laboratory samples for TSS as a minimum to calibrate turbidity readings and TSS</p> <p>In the event that the turbidity of the downstream sample is more than the project criterion, further downstream and upstream testing, coupled with a detailed stream and surroundings inspection, will be undertaken to ascertain whether the exceedance is related the construction activities.</p>	<p>Intercepted by works and if safe to access</p> <p>1 x Upstream, 1 x downstream and 1 x at work front at the following sites</p> <p>Enoggera/Breakfast Creek Moolabin Creek Rocky Waterholes Creek</p> <p>Immediately Downstream of Salisbury Station from a safe location</p> <p>1 x nearest receiving point to site runoff</p> <p>Stable Swamp Creek</p> <p>Immediately Downstream of the Northern Corridor from a safe location</p> <p>1 x nearest receiving point to site runoff</p> <p>Barrambin (York's Hollow)</p> <p>If present in all conditions – source water</p>	<p>Environment team</p> <p>NATA accredited laboratory for the selected analytes</p> <p>Site supervisor to be in attendance in the event emergency works are required to stop an unexpected discharge</p>	<p>As required but no longer than 24 hours following a rain event to adequately capture representative site conditions</p> <p>If due to safe access concerns or when event occurs on weekends– sampling is delayed – this will be noted as part of the reporting</p>

EMP Sub-Plan	Activity/Element	Purpose	Monitoring Procedure	Locations	Responsibility	Frequency
	Surface Water – Spills Response (qualitative and supported by quantitative as required)	Incident response management	<p>Spills to surface waters (waterways) associated with unplanned mechanical failures or unplanned incidents with refuelling:</p> <p>The response would include the following observations and testing regime:</p> <p>Does not have an oily sheen</p> <p>In situ monitoring of pH, E.C, turbidity and DO</p> <p>If oily sheen a sampling regime of the affected area including upstream and downstream sampling will occur, lab analysis by NATA accredited laboratory for BTEXN, TRH, PAHs, Oil and Grease and 8 total heavy metals</p> <p>A minimum of three samples are collected at location of discharge meeting the natural water, upstream and downstream</p> <p>unplanned Sewage overflow</p> <p>The response would include the following observations and testing regime</p> <p>In situ monitoring of pH, E.C, turbidity and DO</p> <p>lab analysis by NATA accredited laboratory for TN, TP, TSS, BoD, e-Coli</p> <p>A minimum of three samples are collected at location of discharge meeting the natural water, upstream and downstream to identify the extent of impact and demonstrate the area has been successfully cleaned up by the spill response.</p>	As required Enoggera/Breakfast Creek Moolabin Creek Rocky Waterholes Creek Barrambin (York's Hollow)	Environment team	Within 24 hours of spill having occurred
	Dewatering Activities (quantitative)	Compliance with Imposed Condition 18 and Imposed Condition 15(a)	<p>In the event dewatering directly in creek or where run off could enter creek this will be undertaken only if an Approved Permit to Dewater has been issued by the environment team</p> <p>In situ Monitoring of the Source water and receiving water body will be undertaken to ascertain whether a Permit to Dewater can be issued. In situ monitoring will include pH, Turbidity and E.C as a minimum.</p>	Enoggera/Breakfast Creek Moolabin Creek Rocky Waterholes Creek Stable Swamp Creek site Barrambin (York's Hollow) Norman Creek Source water	Environment team	After rain events and prior to discharge
	Waterways (DAF) (qualitative)	Legal Compliance with relevant acts on secondary Approvals' Condition	Routine, regular and frequent visual monitoring is undertaken while carrying out construction work in a watercourse, waterway, or drainage feature and captured during weekly environmental inspections.	Enoggera/Breakfast Creek Moolabin Creek Rocky Waterholes Creek	Environment team	As per the Development Approval or Accepted Development Timeframes
			<p>Pre-works photos are taken of all waterways prior to construction commencing in the waterway as per the Accepted Development Code or Development Approval for the Waterway</p> <p>Post-works photos are taken, following completion of works within the waterway.</p>	Enoggera/Breakfast Creek Moolabin Creek Rocky Waterholes Creek	Environment team	As per the Development Approval or Accepted Development Timeframes
Nature Conservation FAUNA	Breeding Places/Habitat Places	SMP Compliance EMS requirement	<p>Prior to clearing vegetation, monitoring will be undertaken within two weeks from the clearing to identify potential habitat and breeding places</p> <p>If active breeding places are identified further management and monitoring may be required especially if species are not covered by a Species Management Plan.</p>	Sites where vegetation clearing is required	Fauna spotter/catcher	As required
Nature Conservation FLORA	Protected Vegetation	SMP Compliance EMS requirement	Visual site inspections of trees and vegetation marked as requiring protection (e.g. as per permits requirements), i.e. inspection of exclusion zone around tree such as barricading and signage.	As relevant with focus in: <ul style="list-style-type: none"> NALL permit areas NC Act permits and/or exemptions area Marine Plants areas of Breakfast Creek 	1. Environment team 2. Area supervisor/superintendent	1. Weekly scheduled inspections 2. Daily inspections

EMP Sub-Plan	Activity/Element	Purpose	Monitoring Procedure	Locations	Responsibility	Frequency
Waste Management	Construction Wastes	EMS requirement Legal Compliance Inform / Support ISC submission	<p>Regular visual monitoring is undertaken of waste management areas during inspections including</p> <ul style="list-style-type: none"> • Appropriate disposal of waste (i.e. waste segregation is undertaken) • Storage capabilities of waste receptacles (i.e. not overflowing) • Types and quantities of waste receptacles (i.e. sufficient number of bins on site and adequate segregation opportunities are provided). 	Active worksites	<p>1. Environment team</p> <p>2. Area supervisor/superintendent</p>	<p>1. Weekly scheduled inspections</p> <p>2. Daily inspections</p>

Attachment 5 Event Classification Matrix

This matrix is used to assign the Actual and Potential Consequence to Environmental Events (Incidents and Non Compliances)

Event Types				
Incident	Near Hit	Regulatory Visit	Stakeholder Contact	Hazards
An occurrence that results in damage to property, plant, equipment, the environment, or project interruption.	An occurrence that did not result in, but had the potential to result in, damage to property, plant, equipment, the environment, or project interruption. This includes non-Compliances with Conditions of Approvals or legislative requirements	A visit by a regulatory authority to the workplace.	A record of a contact between the workplace and an external stakeholder. For example, a compliment, complaint, an enquiry, or feedback.	An event record of an identified hazard that if uncontrolled has the potential to cause damage, harm or adverse health effects within the workplace.

This matrix is used to assign the Actual Consequence to an Environmental Incident and the Classification to an Environmental Impact

Event Classes				
Actual Consequence				
1A	2A	3A	No Impact	
Environmental discharges, environmental pollution or degradation which has high severity impacts on the community and/or environment or may have irreversible detrimental long-term impacts.	Environmental discharges, environmental pollution or degradation which has moderate severity impacts on the community and/or environment (1 to 3 months) but is fully reversible in the long term.	Environmental discharges, environmental pollution or degradation which has low severity impacts on the community and environment in the short term (<1 month) and is fully reversible with no residual impacts. Includes nuisance level impacts.	Negligible or sporadic discharges	
Potential Consequence				
1P	2P	3P	4P	5P
Long-term / irreversible damage to neighbouring or valued ecosystem. Long-term remediation required. Irreparable damage to highly valued items / locations of cultural significance.	Impacts extend off-site / external ecosystem. Considerable remediation required. Significant damage to structures / locations of cultural significance.	Medium term, contained impact; requiring significant remedial action. Moderate but permanent damage to structures / items / locations of cultural significance.	Short lived, well-contained environmental impact; minor remedial action required. Moderate damage that is largely repairable.	Small, contained localised impact. Low level repairable damage to commonplace structures.

Attachment 6 Environmental Harm Classification Guidance Matrix

The following Guidance Matrix must be read in the context of the Incident Classification definitions above. It contains examples only and is not intended to be comprehensive. All examples do not have to be present for that Class or Category to apply. Classification should consider the intent rather than just the literal meaning of the example. The Category selected should be the one that best represents the environmental impact of the incident, rather than the cause of incident. Classification of incidents must be done by persons with relevant environmental expertise. Expert advice may be required in some situations.

Environmental Harm Environmental Category	Class 1	Class 2	Class 3
WAT - Discharges to Surface Water	<p>Major and/or multiple discharges of pollutant to surface water. High severity impact on values of water resource e.g.</p> <ul style="list-style-type: none"> Extensive contamination/pollution of waterways or water catchment areas (e.g. tailings dam failure). 	<p>Significant and/or persistent discharge to surface water, moderate impact on values of water resource e.g.</p> <ul style="list-style-type: none"> Spill escapes into offsite watercourse or storage with significant remediation required Uncontrolled discharge from sedimentation basin or site drainage system above allowable limits Significant release of sediment off-site into drains or receiving waters. 	<p>Minor pollutant discharge to surface water, no permanent impact on values of water resource e.g.</p> <ul style="list-style-type: none"> Minor spill from a containment, including hydrocarbons, which may or may not escape into the non-controlled environment, but which is contained and doesn't result in persistent environmental harm Controlled discharge from sedimentation basin or site drainage system above allowable limits.
CON – Contamination of Land and Groundwater	<p>Major spill of environmentally hazardous materials (e.g. hydrocarbons, chemicals, effluent, contaminated materials) to land e.g.</p> <ul style="list-style-type: none"> Persistent and severe contamination of land Severe contamination of groundwater Extensive clean up and/or remediation required Uncontrolled spill of regulated material. 	<p>Significant spill of environmentally hazardous materials (e.g. hydrocarbons, chemicals, effluent, contaminated materials) to land e.g.</p> <ul style="list-style-type: none"> Moderate contamination of groundwater with the consequence reversible Spill confined to defined area(s) within or outside site or workplace Significant clean up required over and above removal of contaminated material to land farm or approved waste area Spill of a type and/or volume that must be reported to a regulatory body. 	<p>Minor leak or spill (greater than 20 litres) of environmentally hazardous materials (e.g. hydrocarbons, chemicals, effluent, contaminated materials) to land e.g.</p> <ul style="list-style-type: none"> No residual contamination of land Minor contamination of groundwater, with minimal consequence Spill confined to managed area(s) within site or workplace No significant clean up required other than removal of contaminated material to land farm or approved waste area. <p>Note: for Spills/Leaks <20 litres see definition for Near Hit Environmental Event No Impact Hydrocarbon Spill</p>
AIR – Dust, odour and emissions to atmosphere	<p>Severe or persistent discharge of hazardous pollutant to atmosphere e.g.</p> <ul style="list-style-type: none"> Explosion or leak of hazardous gas or particulates Evacuation of local vicinity Continuous/frequent exceedance of air quality health criteria Severe eco-toxic effects on listed habitats or communities. 	<p>Moderate or persistent discharge of pollutant to atmosphere e.g.</p> <ul style="list-style-type: none"> Multiple occurrences of obnoxious odours outside the premises Nuisance dust levels requiring significant offsite clean-up Odour issues requiring relocation of material or significant changes to waste, earthworks of stockpile management Significant quantities of Greenhouse or ozone depleting gases released to the atmosphere. 	<p>Minor discharge of pollutant to atmosphere that is in breach of a documented obligation or legal condition, but which doesn't result in significant impacts e.g.</p> <ul style="list-style-type: none"> Overfill of cement silo, cement dust release Nuisance dust requiring minimal or no offsite clean-up Small quantities of greenhouse or ozone depleting gases released to the atmosphere Failure to maintain plant in an efficient condition.
NVL – Noise, Vibration and Light (including overpressure)	<p>Generation of noise, vibration, or light causing severe damage to property outside site or workplace, or the environment, or severe and/or persistent disruption to the community e.g.</p> <ul style="list-style-type: none"> Major and persistent loss of amenity or nuisance Extreme levels or persistent excessive noise resulting in severe community impacts Confirmed substantial damage to property from vibration. 	<p>Generation of noise, vibration, or light causing sustained periods of inconvenience or disruption to community and the environment e.g.</p> <ul style="list-style-type: none"> Significant loss of amenity or nuisance Wilful disregard of limits Noise, vibration or light levels regularly in excess of set criteria Vibration causes confirmed minor damage to property. 	<p>Unplanned generation of noise, vibration, or light exceeding documented limits or controls and causing occasional inconvenience or disruption to community and the environment e.g.</p> <ul style="list-style-type: none"> Minor loss of amenity or nuisance Occasional unplanned breach of noise, vibration or light criteria at sensitive receivers Substantiated public complaint satisfactorily resolved at project level.
WAS – Solid and Other Wastes NOTE: This category only applies to the unauthorised storage and handling of wastes. Once an incident occurs, use other categories to classify incident.	<ul style="list-style-type: none"> Unauthorised storage, transport, treatment or disposal of a significant quantity (refer to legislation) of regulated waste (e.g. classified, prescribed, hazardous) in contravention of waste management legislation Unauthorised storage, transport, treatment or disposal of a significant quantity (e.g. => 10,000 litres, 10 tonnes or 10.0m³) of non-regulated waste, in contravention of regulations or project waste management requirements. 	<ul style="list-style-type: none"> Unauthorised storage, transport, treatment or disposal of a minor quantity (refer to legislation) of regulated waste (e.g. classified, prescribed, hazardous) in contravention of waste management legislation Unauthorised storage, transport, treatment or disposal of a moderate quantity (e.g. up to 10,000 litres, 10 tonnes or 10.0m³) of non-regulated waste, in contravention of regulations or project waste management requirements. 	<ul style="list-style-type: none"> Placement or storage of waste or contaminated materials in a manner or place where environmental harm could reasonably be expected to occur Unauthorised storage, transport, treatment or disposal of a minor quantity (e.g. up to 1000 litres, 1000kg or 1.0m³) of non-regulated waste in contravention of regulations or project waste management requirements.

Environmental Harm Environmental Category	Class 1	Class 2	Class 3
FLFA – Flora and Fauna	<p>Major loss or impact on land or water-based flora or fauna. Destruction of ecologically significant habitat that is of national significance. Endangering viability of species, habitat or ecosystem. Damage that cannot be remediated, or only remediated with risk of long-term loss e.g.</p> <ul style="list-style-type: none"> Unapproved destruction of habitat in a national park or similar Unplanned harm to scheduled flora and fauna species and habitats that may threaten the regional survival of the species or community Long term or permanent disruption of protected fauna breeding cycle Introduction or spread of weeds and pathogens that pose a high risk of ecological or economic damage. 	<p>Medium impact on land or water-based flora, fauna or habitat. Short-term impact on ecosystem that is of regional significance. Damage that can be remediated e.g.</p> <ul style="list-style-type: none"> Partial destruction of native habitat leading to impact on local species numbers or disruption to breeding cycles Short-term disruption of protected fauna breeding cycle Unplanned harm to scheduled flora or fauna species that may threaten the local survival of the species. Unapproved clearing of an area of remnant native vegetation, Declared Threatened or Rare flora Introduction or spread of weeds and pathogens that will require extensive resources to contain. 	<p>Minor loss or impact on land or water-based flora, fauna or habitat, but no long term negative effect on the ecosystem or habitat. Limited damage to an area of land of minor local ecological significance e.g.</p> <ul style="list-style-type: none"> Death of a native animal, that is not identified as a pest, but not from a scheduled species Damage to vegetation in breach of clearing permits and approvals Localised spread of weeds or pathogenic material within site.
HER –Archaeological, Heritage and Cultural Issues	<p>Destruction or irreparable damage to listed structures/items/ locations of cultural or heritage significance e.g.</p> <ul style="list-style-type: none"> Wilful damage to a structure, place, item, or artefact. Blatant disregard of widely held cultural values. 	<p>Significant damage to listed structures/items/locations of cultural or heritage significance e.g.</p> <ul style="list-style-type: none"> Knowingly disturbing an archaeological site or place without the appropriate permits or in breach of a permit Entering of protected site, with a breach of cultural 'laws. Minor disregard of cultural values. 	<p>Minor accidental and repairable damage to listed structures or places, or minor infringement of cultural values e.g.</p> <ul style="list-style-type: none"> Unintentionally disturbing an archaeological site or place without the appropriate permits Entering of protected sites, but not in breach of cultural 'laws.
RES – Use of land, water, fuels and energy, and other natural resources	<p>Operations cause either short term severe or persistent unplanned disruption to the availability of resources to the community or the environment. Exhaustion or serious degradation of natural resources for future use e.g.</p> <ul style="list-style-type: none"> Operations cause loss of flow in natural watercourses or irreversible depletion of aquifers Continuous loss of supply water volume from non-licensed discharge point, with evidence of supply water contamination. 	<p>Operations cause substantial unplanned disruption to the availability of resources to the community or the environment. Significant impact on other energy/natural resource users or the environment outside site or workplace e.g.</p> <ul style="list-style-type: none"> Water usage/de-watering by operations causes loss of pressure or flow to local/adjacent water bores Unrecoverable loss of in situ or stockpiled growth medium (e.g. buried) Loss of minor water supply volume off-site. 	<p>Operations cause temporary unplanned disruption to the availability of resources to the community or the environment. Minor impact on other energy/natural resource users or the environment outside site or workplace e.g.</p> <ul style="list-style-type: none"> Rehabilitation area disturbed Minor land-use change without approval from Client or Regulator Loss of water supply volume to localised environment due to continuous moderate leakage (e.g. reservoirs, pipelines, tanks).
ASS - Acid Sulphate Soils	<p>Mismanagement of acid sulphate soils results in high level or catastrophic persistent impacts e.g.</p> <ul style="list-style-type: none"> Significant damage to infrastructure Major acid drainage event. 	<p>Significant exposure, lack of containment or poor management of acid sulphate soils.</p>	<p>Minor exposure of acid sulphate soils e.g.</p> <ul style="list-style-type: none"> Exposure of previously unidentified ASS during works Failure of protective bunds but with no runoff leaving contaminated area.
ESC- Erosion & Sediment Control	<ul style="list-style-type: none"> Erosion causing major irreversible impacts to the surrounding environment Major clean up works requiring significant resources Placement of high toxicity materials in a drainage line or adjacent to a waterway resulting in prosecution. 	<ul style="list-style-type: none"> Disruptions to freshwater or marine activities Placement of contaminated wastes or medium toxicity materials in a location where it could potentially result in pollution Moderate erosion to a landscape, including flow lines that can be remediated in the medium term Critical E&S controls not installed. 	<ul style="list-style-type: none"> Minor reversible alteration in landscape or topography Erosion causing minor impacts that are reversible Placement of excavated soil or low toxicity materials in a location where it could potentially result in pollution E&S Controls not maintained.
DMR -Dirt & Mud on Public Roads	<p>Tracking or depositing of soil onto roads resulting in major clean-up works and major delays to arterial traffic.</p>	<ul style="list-style-type: none"> Tracking of soil material onto local roads requiring significant resources for clean-up works. Exit controls and/or clean-up regime required but not in place Repeated failure by trucks to cover loads in accordance with project requirements. 	<ul style="list-style-type: none"> Unplanned tracking of soil onto local roads requiring minor clean up: Controls are in place but ineffective (e.g. exit rumble grids, wheel washes), clean up (street sweepers) Occasional failure by trucks to cover loads in accordance with project requirements.