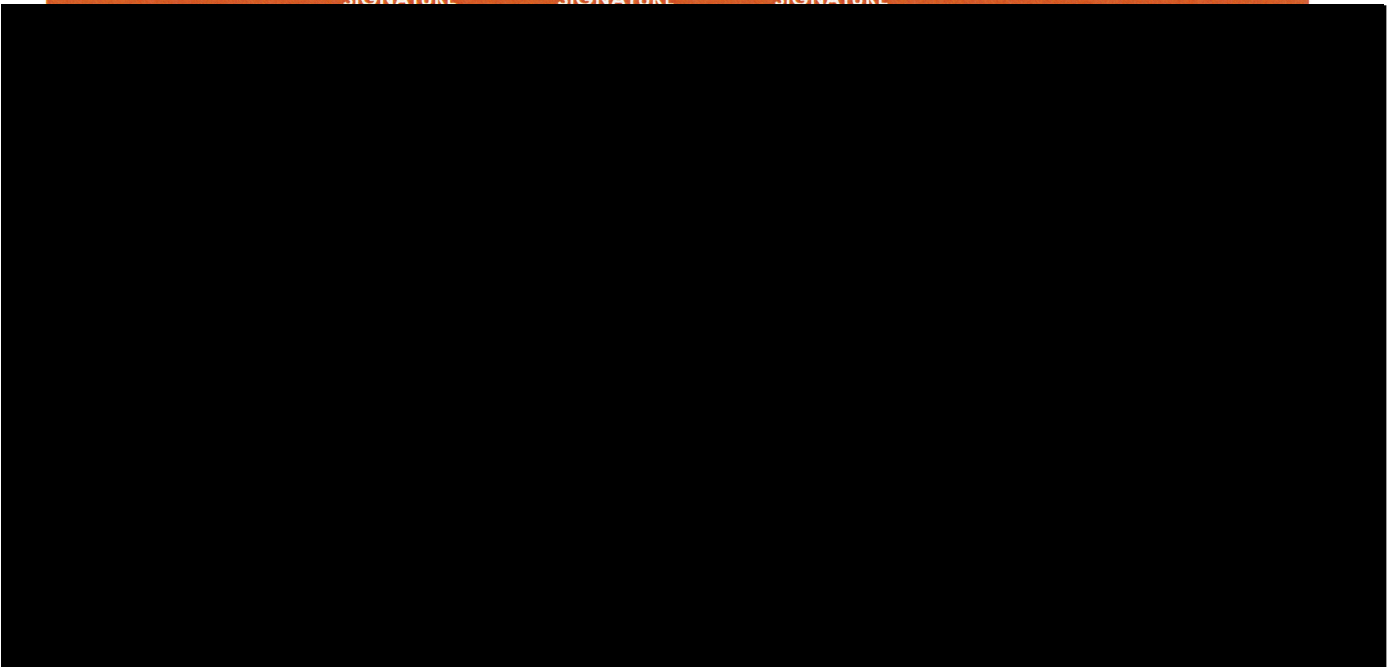


Spoil Placement Management Plan

Cross River Rail Project – Tunnel, Stations and Development Package (TSD)

REV	DATE	PREPARED BY NAME & SIGNATURE	REVIEWED BY NAME & SIGNATURE	APPROVED BY NAME & SIGNATURE	REMARKS
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Compliance Matrix

Table 1 Compliance matrix

CRRDA REFERENCE	REQUIREMENT	ADDRESSED IN SECTION
Coordinator-general's change report Appendix 1 – Part C – Condition 4 Construction Environmental Management Plan		
(a)	Prior to the commencement of project work, a construction environmental management plan for those works (relevant project work) must be developed by the proponent and endorsed by the environmental monitor as being consistent with the outline EMP and these imposed conditions.	This Plan as a sub-plan of CEMP
Coordinator-General's change report Appendix 1 – Part C – Condition 14 Traffic and transport		
(c)	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 Worksite Management Plan Construction Traffic Management Plan This Plan
Project Scope and Technical Requirements Annexure C: Construction Requirements		
Section 6.1.4	Without limiting the State Approval, where the State Approval makes reference to "placement" in the context of the five potential spoil placement locations (Brisbane Airport, Swanbank, Pine Mountain, Larapinta and Port of Brisbane), the activities covered by "placement" must also include all associated activities including compaction, shaping, trimming, vegetating, providing interim erosion and sediment control measures and other activities agreed with the land owners and Authorities.	This Plan

Details of Revision Amendments

Document Control

The CBGU Project Director is responsible for ensuring that this Plan is reviewed and approved. The Project Environment & Sustainability Manager is responsible for updating this Plan to reflect changes to the Project, legal and other requirements, as required.

Amendments

Any revisions or amendments must be approved by the CBGU Project Director before being distributed / implemented.

Distribution and Authorisation

The CBGU Project Director is responsible for the distribution of this Plan. The controlled master version of this document is available for distribution as appropriate and maintained on TeamBinder. All circulated hard copies of this document are deemed to be uncontrolled.

All personnel employed on the Project will perform their duties in accordance with the requirements of this Plan, supporting management plans, and related procedures.

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Referenced Documents

The following provides a list of referenced documents either as a sub-plan to this plan or referenced from.

Table 2 *Referenced Documents*

Document Number	Document Name	Location of Controlled Version
Referenced Project Plans include:		
CRRTSD-EN-MPL-CBGU-000019	Construction Environmental Management Plan	TeamBinder
CRRTSD-TM-MPL-CBGU-000012	Construction Traffic Management Plan (CTMP)	TeamBinder
CRRTSD-CS-MPL-CBGU-000036	Construction Worksite Management Plan	TeamBinder
CRRTSD-EN-ENMP-CBGU-000016	Erosion and Sediment Control Plan	TeamBinder
CRRTSD-TM-CTMP-CBGU-000001	CTMP Subplan - Haulage Management Plan	TeamBinder
CRRTSD-EN-ENMP_CBGU_000020	Water Quality Monitoring Plan	TeamBinder
CRRTSD-EN-ENMP-CBGU-000023	Weed and Pest Management Plan	TeamBinder

Note: this Management Plan may not contain the current version of the documents listed above. Refer to the 'location of controlled version' for the most current version.

Glossary of Terms

Table 3 Terms

Term	Meaning
BCC	Brisbane City Council
CBD	Central Business District
CBGU	Design & Construct Contractor comprising a joint venture with CPB Contractors Pty Ltd, BAM International Australia Pty Ltd, Ghella Pty Ltd and UGL Engineering Pty Ltd
CEMP	Construction Environmental Management Plan
CG	Coordinator-General
CGCR	Coordinator-General change reports
CRR	Cross River Rail
CSEP	Community and Stakeholder Engagement Plan
CTMP	Construction Traffic Management Plan
CWMP	Construction Worksite Management Plan
DA	Delivery Authority
DEHP	Department of Environment and Heritage Protection (now DES)
Delivery Authority	Cross River Rail Delivery Authority
DES	Department of Environment and Science
EP Act	Environmental Protection Act 1994 (Qld)
EPP (Water)	Environmental Protection (Water) Policy 2009 (Qld)
ERA	Environmentally Relevant Activity
ESCP	Erosion and Sediment Control Plan
HMP	Haulage Management Plan
km	Kilometer
Project	Cross River Rail Project
PSTR	Project Scope and Technical Requirements
QLD	Queensland
QR	Queensland Rail
RfPC	EIS Request for Project Change
RNA	Royal National Agriculture and Industrial Association
SPMP	Spoil Placement Management Plan
TBM	Tunnel Boring Machine
TeamBinder	Proprietary software used as part of the Project wide Electronic Document Management System
TSD	Tunnel, Stations and Development

1 Introduction

1.1 Background

The Design and Construction Joint Venture comprising of CPB Contractors Pty Ltd, BAM International Australia Pty Ltd, Ghella Pty Ltd and UGL Engineering Pty Ltd (CBGU D&C JV or CBGU) is responsible for delivering the Cross River Rail (CRR) Project (the Project) on behalf of the Cross River Rail Delivery Authority (the Delivery Authority).

This Spoil Placement Management Plan should be read in conjunction with the Project's overarching Construction Environment Management Plan (CEMP).

The CEMP provides specific details regarding the background of the Project, the scope of the Project and the staging and timing of key milestones associated with the construction of the Project.

1.2 Context

This Spoil Placement Management Plan (SPMP) forms part of the Construction Environmental Management Plan (CEMP) developed for the construction of the Project. The SPMP describes how the CBGU D&C JV will manage spoil placement and minimise impacts to the environment as a result of spoil placement.

CBGU will utilise one of the five (5) spoil placement sites identified in the OEMP or acceptable alternate sites that comply with the *Environmental Protection Act 1994* requirements. The mitigation measures identified in this plan will be reviewed after the appointment of the Project Spoil Haulage Subcontractor(s) to ensure they are site specific and achieve the required environmental outcomes.

1.3 Objectives

The objectives of this SPMP which is a sub-plan of the CEMP are to:

- Ensure controls and procedures are implemented during construction activities to avoid, minimise or manage potential adverse impacts to the environment as a result of spoil placement
- Ensure controls and procedures are implemented to manage spoil generated from the Project
- Nominate the Project's monitoring and reporting requirements in relation to this plan
- Monitor the effects of management and mitigation measures.

1.4 Legislative Framework

1.4.1 Commonwealth Legislation

No Commonwealth legislation is specifically relevant to this SPMP.

1.4.2 State Legislation

State legislation that is relevant to the Project and this SPMP includes:

- *Cross River Rail Delivery Authority Act 2016*
- *Environmental Protection Act 1994*

- *Environmental Protection (Air) Policy 2019*
- *City of Brisbane Act 2010*
- *Local Government Act 2009*
- *Transport Infrastructure Act 1994*
- *Waste Reduction & Recycling Act 2011*
- *Building Act 1975*
- *Economic Development Act 2012*
- *Planning Act 2016*
- *Work Health and Safety Act 2011*
- *State Development and Public Works Organisation Act 1971*

1.4.3 Approvals, Permits and Licences

CBGU will obtain or ensure that sub-contractors have the relevant licences, permits and approvals as required by law and maintain them as required throughout the delivery phase of the project. No condition of the Infrastructure Approval removes the obligation for CBGU to obtain, renew or comply with such necessary licences, permits or approvals.

Approvals expected to be required for the Project, that relate to impacts and management are identified in Table 4 below.

Table 4 Environmental approvals, permits and licences

Approval / Permit / Licence	Regulatory Authority	Responsibility / Timeframe	Items approved
Clean spoil disposal	Varied – depending on location of spoil disposal	Spoil haulage contractor. Timeframe varies depending on proposed disposal location. Some locations may already be approved for disposal – for example at Port of Brisbane.	Disposal of clean spoil.

1.4.4 Guidelines and Standards

Design, construction and commissioning of the works must be undertaken in accordance with the specific guidelines nominated in the relevant sub-sections within this management plan and detailed in the overarching CEMP.

2 Required Outcomes

The following requirements must be achieved throughout construction of the Project.

2.1 Coordinate-General Conditions

The Imposed Conditions relating to Spoil Placement for the Project can be found on the Coordinator-General's website (<http://www.dsdmip.qld.gov.au/coordinator-general/assessments-and-approvals/coordinated-projects/completed-projects/cross-river-rail-project.html>).

2.2 Spoil Placement

Without limiting the State Approval, where the State Approval makes reference to “placement” in the context of the five potential spoil placement locations (Brisbane Airport, Swanbank, Pine Mountain, Larapinta and Port of Brisbane), the activities covered by “placement” must also include all associated activities including compaction, shaping, trimming, vegetating, providing interim erosion and sediment control measures and other activities agreed with the land owners and Authorities. Spoil placement also must address the following requirements:

1. Spoil placement sites:
 - a) Spoil must be disposed of at a designated spoil placement site
 - b) Designated spoil placement sites must be appropriately licensed to accept spoil from Project Works.
2. Spoil haulage routes:
 - a) All spoil must be transported from the originating worksite to the designated spoil placement site via a designated (pre-approved) spoil haulage route as part of the Haulage Management Plan (HMP)
 - b) Designated spoil haulage routes must be inspected regularly while spoil is transported for spilled spoil (from the Outline Construction Environmental Management Plan – Outline Spoil Placement Management Plan (OSPMP) p 7).
3. Spoil placement site access:
 - a) Access to a designated spoil placement site must be via a constructed and sealed road (OSPMP p 7)
 - b) The exit point should be fitted with a device suitable for the removal of loose soil from spoil trucks and their wheels, to avoid spillage on the haulage route.

3 Impacts and Mitigation Measures

A range of potential impacts to the environment and potential environmental mitigation measures are outlined below.

3.1 Impacts

Construction spoil includes 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 (OSPMP p7).

Expected spoil volumes from each worksite are identified in Table 5.

Table 5 Approximate spoil volumes and anticipated truck movements for the project.

Precinct	Approximate spoil volumes generated at worksites (bank cubic meters)
Northern Portal	18,155
Roma Street Station	184,175
Albert Street Station	186,549
Woolloongabba Station	584,552
Boggo Road Station	148,459
Southern Portal	8,287

The following potential uncontrolled impacts for the licensed disposal site have been identified in the list below:

- Water pollution due to sediment runoff from spoil stockpile
- Sedimentation of surface water and changes to flow
- Dust generation from spoil stockpile causing water and air pollution
- Impact to fauna and flora
- Increased movement of heavy vehicles at the designated spoil placement site
- Tracking spoil onto haulage roads
- Spoil spills on access roads and haulage routes.

3.2 Mitigation Measures

The following mitigation measures may be implemented to achieve the nominated environmental outcomes and performance criteria.

CBGU will ensure the following:

- Tunnel spoil will be predominately transported off-site to designated disposal locations. Where the opportunity exists, some spoil may be reused for on-site works (OSPMP p 7).
- The licensed disposal site will have a constructed and sealed access road (OSPMP p 7).
- The exit points at each worksite will be fitted with a stabilised exit to remove loose spoil from haulage vehicles, as detailed in the Erosion and Sediment Control Plan (ESCP) and Construction Worksite Management Plan (CWMP) (OSPMP p 7).
- The designated spoil disposal sites will be appropriately licensed (OSPMP p 7). Five (5) potential designated spoil disposal sites, include but are not limited to the following:
 - Brisbane Airport
 - Port of Brisbane
 - Pine Mountain
 - Larapinta
 - Swanbank.
- CBGU will utilise one of the five (5) spoil placement sites identified above or acceptable alternate sites that comply with the *Environmental Protection Act 1994* requirements. The additional acceptable spoil locations will be assessed as they become available.
- At construction sites and spoil placement sites, meteorological conditions will be monitored, particularly wind speed and direction. When adverse meteorological conditions are experienced at worksites, such as dry conditions with high winds, CBGU will take measures to minimise or avoid impacts of unreasonable dust or odour on adjacent properties. Such measures may include:
 - Modification of construction methods
 - Increase in dust suppression measures
 - Implementation of additional washing and sweeping of roads servicing worksite access and egress points
 - when no other reasonable or practical measure is available, cessation of work until the meteorological conditions improve and the environmental outcome can be achieved (OAQMP p 7).
- The designated spoil haulage routes for each worksite will be documented within the approved CTMP Subplan – Haulage Management Plan.
- Site access to all worksites is designed and constructed for all-weather access for construction vehicles and equipment. Ensure trucks transporting construction spoil are:
 - covered to prevent wind-blown dust during transport (OAQMP p 8); and
 - cleaned down prior to exit from the worksites and the spoil placement site to prevent spills of loose material to roadways (OAQMP p 8).
- Waste tracking is undertaken in accordance with legislative requirements (from the Outline Construction Environmental Management Plan – Outline Waste Management Plan (OWMP) p 8).

The SPMP (or similar register) will be updated progressively as designated and as appropriately licensed disposal sites are engaged.

4 Compliance Management

4.1 Roles and Responsibilities

The organisational responsibilities and accountabilities in relation to environmental management throughout Project construction works are outlined in the overarching CEMP.

4.2 Induction and Training

4.2.1 Environmental Induction

All CBGU staff, subcontractors and visitors to worksites must attend general induction training that covers general environmental management requirements, site-wide controls and site-specific and work specific risks and mitigation measures. Further details regarding environmental induction requirements have been outlined in the overarching CEMP.

4.2.2 Environmental Training

Details regarding environmental training requirements have been outlined in the overarching CEMP.

4.3 Communication

Communication strategies including internal communication, external and Government Authority consultation, and stakeholder and community liaison must be undertaken in accordance with the CEMP and the Communication and Stakeholder Engagement Plan (CSEP) and/or Community Engagement Plan (CEP).

4.4 Incidents and Emergencies

4.4.1 Incident Notification

The immediate response to all incidents is to make the area safe and undertake measures to prevent further environmental harm. The Environment and Sustainability Manager, Shared Service Director and Project Director should be notified immediately in the event of an environmental incident.

Further details regarding Incident Notification, have been outlined in the overarching CEMP.

4.4.2 Incident Types

Incidents include, but are not limited to:

- Any breach of the legislation or an approval or permit condition
- Unauthorised dumping of spoil
- Not covering loads during haulage
- Not using designated haulage routes
- Spills of fuel, oil chemical or other hazardous material during spoil haulage and placement.

4.4.3 Incident Prevention Management

Incident Prevention management has been identified within the overarching CEMP.

4.4.4 Incident Investigation

The Incident Investigation process has been specified in the overarching CEMP.

4.4.5 Complaint Management

All complaints are to be dealt with in accordance with the complaints management procedure outlined in the CEMP.

5 Inspections, Monitoring, Auditing and Reporting

This section outlines the compliance processes that have been adopted by CBGU to ensure compliance with the Coordinator-General Conditions and any other legislative requirements. The section below details specific requirements relating to inspections, monitoring and auditing requirements.

5.1 Environmental Monitoring

5.1.1 Performance Monitoring

Monitoring will be undertaken (where required, this will be determined on a case-by-case basis in consultation with land owner / authority) at various sensitive receptors including each spoil disposal site to measure the effectiveness of environmental controls and implementation of this SPMP. The monitoring also helps in addressing any potential Community Complaints that may be made. Specific monitoring requirements in regards to spoil placement are included within relevant sub-plans, i.e. Erosion and Sediment Control Plan and Water Quality Monitoring Plan.

5.1.2 Additional Requirements

- Inspect and monitor (where required, this will be determined on a case-by-case basis in consultation with land owner / authority) construction worksites and the spoil placement sites for the presence of fire ants as required by the Pest and Weed Management Plan.
- Inspect and monitor to ensure trucks transporting construction spoil are:
 - covered to prevent wind-blown dust during transport (OAQMP p 8); and
 - cleaned down prior to exit from the worksites and the spoil placement site to prevent spills of loose material to roadways (OAQMP p 8).

5.1.3 Auditing

Audits will be undertaken to assess the effectiveness of environmental controls, compliance with the CEMP, compliance with Environmental Design Requirements, and other relevant permits, approvals, and guidelines. There will be a monthly internal audit undertaken by CBGU as per the CEMP, who is to report findings to the Environmental Monitor and the Authority. This includes reporting on compliance with the CEMP and the Imposed Conditions.

Audits will be undertaken in accordance with the overarching CEMP.

5.1.4 Corrective Action

Corrective actions must be undertaken where monitoring or validated complaints indicate the environmental outcomes or Imposed Conditions are not achieved in relation to particular works, either because the performance criteria have not been met, or mitigation measures have not been implemented. Where corrective actions become necessary, the specific works that do not achieve the environmental outcomes or meet the Imposed Conditions must cease until the corrective actions have been developed and implemented.

The process for developing and implementing Correction Actions has been specified within the overarching CEMP.

5.2 Reporting

To ensure compliance with Coordinator-General Condition 6, CBGU will prepare and submit a monthly report within 6 weeks from the end of the month to the Delivery Authority.

The specific requirements of the Monthly Report have been identified in the CEMP.

5.3 Documentation and Communication

Records in relation to spoil placement must be maintained in accordance with these requirements.

5.3.1 Document Control

Document control requirements have been specifically addressed within the overarching CEMP.

5.3.2 Review

In accordance with the General Requirements of the CEMP this SPMP must also be updated and revised on the basis of, changes to proposed spoil placement locations.

Revisions shall be reviewed and approved prior to issue. Updates to this SPMP are numbered consecutively and issued to holders of controlled copies

Revisions to this SPMP may also be required during the Project to reflect changing circumstances or identified deficiencies. Revisions may result from:

- Management Review
- Audit (either internal or by external parties)
- Complaints or non-conformance reports
- Changes to the Company's standard system.

5.3.3 Communication

All internal and external communication with all stakeholders including the public, Coordinator-General, government agencies and the Delivery Authority must be done in accordance with the requirements of the CEMP.