

Cross River Rail Project

Monthly Environmental Report

April 2021



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Executive Summary

This Monthly Environmental Report (MER) has been produced for Project Works undertaken on site for April 2021 for the Rail, Integration and Systems (RIS), and Tunnel, Stations and Development (TSD) packages. The report addresses the obligations outlined in the Coordinator-General's change report – *Coordinator-General's change report – no. 9 (April 2021)* and the individual contractor's Construction Environmental Management Plans (CEMPs) which have been developed generally in accordance with the Project's Outline Environmental Management Plan (OEMP). The Cross River Rail Delivery Authority (Delivery Authority), as the Proponent of the Cross River Rail Project, is required to submit a monthly report to the Coordinator-General to demonstrate compliance with the imposed conditions.

Section 1 of this report provides a background to the project and the Coordinator-General's conditions. Section 2 provides a review of the contractor's reports contained in **Appendix A** (RIS Monthly Report) and **Appendix B** (TSD Monthly Report).

The Environmental Monitor (EM) has reviewed and endorsed this MER. This endorsement follows ongoing and new document reviews, and surveillance across the relevant project worksites.

The CEMPs prepared by both Unity Alliance (RIS Contractor) and CBGU JV on behalf of Pulse (TSD Contractor) for their Relevant Project Works were endorsed by the EM and submitted to the Coordinator-General in accordance with Condition 4 (a) and 4 (b) respectively.

The table below presents a summary of compliance status against each condition with a short comment against each:

Imposed Condition	Requirement Summary	Compliance Met (Yes/No/NA)	Comment
1.	General conditions – compliance with the Project Changes relevant to the contractor's scope	Yes	The CEMP and site management plans are in accordance with the Project Changes.
2.	Outline Environmental Management Plan – timely submission to the Coordinator-General including required sub-plans	Yes	OEMP dated June 2020 is effective for the reporting period.
3.	Design – achievement of the Environmental Design Requirements	NA	Ongoing progress with design packages.
4.	Construction Environmental Management Plan – all relating to Relevant Project Works.	Yes	RIS – CEMP Revision 10 covering full scope of works is effective from 29 April 2021. TSD – CEMP Revision 7 for tunnelling and ongoing activities in the Central area was endorsed by the EM, submitted to the Coordinator-General in June and became effective on 5 July 2020.
5.	Compliance and Incident management – Non-compliance events, notifications and reporting.	Yes	There were no non-compliance events (NCEs) raised in April 2021. Refer to Section 2.5 of this report.

Imposed Condition	Requirement Summary	Compliance Met (Yes/No/NA)	Comment
6.	Reporting – Monthly and Annual reporting.	Yes	This MER including RIS and TSD Monthly Reports have been submitted in accordance with the conditioned requirements. Refer to Appendix A and Appendix B .
7.	Environmental Monitor (EM) – engaged and functions resumed.	Yes	Ongoing weekly site inspections and document reviews continue to take place.
8.	Community Relations Monitor (CRM) – engaged and functions resumed	Yes	Ongoing.
9.	Community Engagement Plan – developed and endorsed by Environmental Monitor.	Yes	CEMPs endorsed with Community Engagement Plan.
10.	Hours of work – Project Works undertaken during approved hours.	Yes	Project Works have been undertaken in accordance with project requirements. This has been achieved through Standard working hours, Extended work hours and Managed Work.
11.	Noise – Project Works must aim to achieve internal noise goals for human health and well-being.	Yes	Noise monitoring following predictive modelling met project noise requirements at Sensitive Places. RIS – Refer to Appendix A (Table 4 and Section 3.1.4) . TSD – Refer to Appendix B (Table 3) .
	Vibration – Project Works must aim to achieve vibration goals for cosmetic damage, human comfort and sensitive building contents.	Yes	RIS - Vibration monitoring was not required based on predictive vibration assessments for construction activities occurred during April 2021. TSD – Vibration monitoring was undertaken to validate predicted vibration assessments and in response to vibration related complaints. The TSD contractor confirmed the monitoring results met project requirements. Refer to Appendix B (Table 2) .
12.	Property damage – relating to ground movement.	Yes	RIS – Predictive vibration modelling has been undertaken for Relevant Project Works and Property Damage Sub-plans have been developed and implemented. Pre-condition surveys have been completed at heritage, commercial and residential buildings at RNA, Northern Corridor and Fairfield to Salisbury stations.

Imposed Condition	Requirement Summary	Compliance Met (Yes/No/NA)	Comment
			TSD – Vibration modelling has been prepared and is ongoing. Where required, building condition survey reports are completed for heritage and residential buildings.
13.	Air quality – Works must aim to achieve air quality goals for human health and nuisance.	Yes	<p>Project Works met air quality goals.</p> <p>RIS – Refer to Appendix A (Table 7, and Figures 1, 2 and 3).</p> <p>TSD – Refer to Appendix B (Table 4 and Table 5).</p>
14.	Traffic and transport – Works must minimise adverse impacts on road safety and traffic flow.	Yes	Traffic Management Plans covered in the CEMPs and Sub-plans for all active worksites have been reviewed by the EM.
15.	<p>Water quality – Works must not discharge groundwater from the construction site above the relevant environmental values and water quality objectives.</p> <p>Monitor and report on water quality in accordance with CEMP and Sub-plans.</p>	Yes	<p>Monitoring and reporting on groundwater and surface water quality was undertaken in accordance with RIS and TSD Water Quality Management Plans.</p> <p>RIS – No groundwater discharges occurred for the month. Post-rainfall monitoring was triggered at Mayne Yard and Clapham Yard. Surface water monitoring results for Breakfast Creek, Moolabin Creek and Rocky Water Holes Creek confirmed off-site discharges met project discharge criteria.</p> <p>Refer to Appendix A (Table 8 and Section 3.3.5) for post-rainfall monitoring results.</p> <p>TSD – Four groundwater discharges from Roma Street, Albert Street, Woolloongabba and Boggo Road worksites were inconsistent with water quality objectives however consistent with pre-construction water quality levels. No external influences were introduced by the construction activities.</p> <p>Refer to Appendix B (Table 6) for ground water monitoring results. Refer to Appendix B (Table 7 and Table 8) for surface water monitoring results.</p>
16.	Water resources – Evaluate potential impact, plan works, implement controls and monitor inflow of groundwater associated with drawdown.	Yes	<p>RIS – There will be no sustained groundwater extraction involved in the RIS scope of works so predictive modelling of groundwater drawdown is not required. Collection of hydrological data to model potential inflow rates into excavations during construction has been undertaken.</p>

Imposed Condition	Requirement Summary	Compliance Met (Yes/No/NA)	Comment
			TSD – Inflow of groundwater into the worksites is being continuously monitored to validate the predictive modelling.
17.	Surface water – Must be designed to avoid inundation from stormwater due to a 2-year (6hr) ARI rainfall event and flood waters due to a 5-year ARI rainfall event and constructed to avoid afflux or cause the redirection of uncontrolled surface water flows, including stormwater flows, outside of worksites.	Yes	Contractors continue to consider this condition in their site planning and design.
18.	Erosion and sediment control – Provisions for erosion and sediment control must be 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.	Yes	Site specific ESC plans for all active work sites have been reviewed by the EM and implemented on site.
19.	Acid sulfate soils – managed as per the Queensland Acid Sulfate Soil Technical Manual.	Yes	Acid Sulfate Soil Management Plans have been prepared and implemented for all active worksites.
20.	Landscape and open space – general requirement to minimise impacts on landscapes and open space values and specific requirements around Victoria Park.	Yes	Extraction of TBM's from the Northern Portal requires minor modification to an existing temporary access road through Victoria Park. Consideration is being taken to minimise loss of trees and area of park impacted during these temporary works. Heritage Exemption Certificate is being sought from the Department of Environment and Science (DES) for these works.
21.	Worksite rehabilitation – worksites rehabilitated as soon as practicable upon completion of works or commissioning, and in consultation with Brisbane City Council.	NA	N/A

Non-Compliance Events

There were no NCE's raised in April 2021.

Definitions

Acronym	Definition
ARI	Average Recurrence Interval - The average or expected value of the periods between exceedances of a given rainfall total accumulated over a given duration.
CEMP	Construction Environmental Management Plan
CGCR	Coordinator-General's Change Report
CRM	The Community Relations Monitor engaged in accordance with Imposed Condition 8
Contractor	The contractors appointed to design, construct and commission the Project
Coordinator-General	The corporation sole preserved, continued and constituted under section 8 of the SDPWO Act
CRR	Cross River Rail
DES	Department of Environment and Science
EIS	Environmental Impact Statement
EM	The Environmental Monitor engaged in accordance with Imposed Condition 7
ESC	Erosion and sediment control
IECA	International Erosion Control Association
Imposed condition/s	A condition/s imposed by the Coordinator-General under section 54B of the SDPWO Act for the Project
MER	Monthly Environment Report
MRTS52	Transport and Main Roads Specifications MRTS52 Erosion and Sediment Control
NCE	Non-Compliance Event
OEMP	Outline Environmental Management Plan
Project	The Cross River Rail Project
Project Works	As defined in the Imposed Conditions
Proponent	The Cross River Rail Delivery Authority
RfPC	Request for Project Change
RIS	Rail, Integration and Systems
SDPWO Act	<i>State Development and Public Works Organisation Act 1971</i>
Sub-plan	Any sub-plan of the CEMP
The Delivery Authority	The Cross River Rail Delivery Authority
TSD	Tunnel, Stations and Development

1.Introduction

1.1. Background

The Cross River Rail Project (the Project) is a declared coordinated project under the *State Development and Public Works Organisation Act 1971* (SDPWO Act). The CRR Environmental Impact Statement (EIS) was evaluated by the Coordinator-General who recommended the Project proceed, subject to Imposed Conditions and recommendations. Since the evaluation of the EIS, a number of Requests for Project Change (RfPC) submissions have been evaluated by the Coordinator-General. RfPC 9 is applicable for the works that took place in April 2021.

The Coordinator-General has imposed conditions on the Project that apply throughout the design, construction and commissioning phases. These are referred to as the Imposed Conditions. In addition, the Coordinator-General has approved the Project's OEMP which outlines the environmental management framework for the Project. The OEMP includes environmental outcomes and performance criteria which must be achieved for the Project.

Imposed Conditions 5 and 6 nominate the compliance and reporting requirements for the Project. This monthly report addresses these requirements.

1.2. Project Delivery

The Delivery Authority is responsible for planning and delivering the Project. The Project established environmental management plans and secured some of the secondary environmental approvals in addition to enabling works.

The two main delivery packages which require reporting under the Coordinator-General's imposed conditions are:

- Tunnel, Stations and Development (TSD) being delivered by CBGU JV; and
- Rail, Integration and Systems (RIS) being delivered by Unity Alliance.

The Project is geographically divided into four areas:

- Mayne Area;
- Northern Area;
- Central Area; and
- Southern Area.

These are shown in the figure over.



1.3. Reporting Framework

This MER has been prepared to comply with Imposed Conditions 6 and 7 of the Coordinator-General Change Report (CGCR) and includes:

- monitoring data and associated interpretation of the results required by the imposed conditions and Construction Environmental Management Plan (CEMP);
- details of any NCE's, including incidents, corrective actions and preventative actions; and
- details of any complaints, including description, responses, and corrective actions.

Reporting on environmental elements captured in each monthly environmental report, including the annual environmental report, will be reviewed and endorsed by the EM.

1.4. Monthly Environment Report Endorsement

This MER has been endorsed by the EM and the endorsement provided to the Coordinator-General.

2.Compliance Review

This MER has been reviewed and endorsed by the EM as per Imposed Condition 7 of the CGCR.

2.1. Relevant Project Works

The following Project Works were undertaken in April 2021:

Area	Project Works
Mayne Area	<ul style="list-style-type: none">• Mayne Yard North – stormwater drainage works; earthworks for combined services route alignment; ground improvement piling for reinforced soil structure walls and pier protection piling; retaining wall construction; installation of stabling yard fence; and signal relocation.
Northern Area	<ul style="list-style-type: none">• Northern Corridor – earthworks for feeder station and formation works south of Bowen Bridge Road; and Bowen Bridge Road pier protection.• RNA – pier protection under O'Connell Terrace; rock excavation on western side of corridor; and piling of BR43 western viaduct.• Northern Portal – permanent piling, excavation and sewer main relocation ongoing; permanent capping beam commenced on completed piles; and site establishment including installation of site offices.
Central Area	<ul style="list-style-type: none">• Roma Street – cavern heading excavation complete; ongoing bench blasting and excavation; station box adit excavation complete and services building adit excavation commenced; services building excavation and ground retention continues; station building piling and capping beam construction continues; and stormwater main diversion complete.• Albert Street –<ul style="list-style-type: none">- Lot 1 – station box excavation and rock bolt installation continues; 'row 2' props fabricated and ready for install; and Mantra first row of stressed anchors complete.- Lot 2 – cavern heading excavation towards the south completed; adit excavation towards Lot 1 and cavern heading excavation towards the north continues.- Lot 3 – Piling complete; capping beam pours ongoing; and preparation works for tower crane base has commenced.• Woolloongabba – continuous slab pouring occurring within the station box; and southern cavern waterproofing and lining.<ul style="list-style-type: none">- TBM #1 (Else) continued mined tunnelling and segment installation works completing 495 rings by the end of April;

Area	Project Works
	<ul style="list-style-type: none"> - TBM #2 (Merle) continued mined tunnelling and segment installation works completing 280 rings by the end of April; - Roadheader Downline excavation continued with 200m excavated by the end of April; and - Roadheader Upline excavation continued with 191m excavated by the end of April.
	<ul style="list-style-type: none"> • Boggo Road – excavation and retention work in the station box continues; tunnel excavation commenced underneath canopy tubes; ongoing slab and formwork in the south of the station box; and commenced construction of the first station perimeter wall.
	<ul style="list-style-type: none"> • Southern Portal – Continued site establishment works including main office complex, walkways and awnings; continued piling works for portal structure; Telstra and NBN completed fibre cut-overs; completed Kent Street stormwater drainage cut-over installation; continued Combined Services Route (CSR) installation; and commenced sheet piling during railway possessions.
Southern Area	<ul style="list-style-type: none"> • Dutton Park – service investigation works north of platform 1 during Easter SCAS; and early works continuing at Cope Street. • Yeronga Station – dual gauge track lowering; tree clearing completed; and Platform 1 demolition works commenced. • Clapham Yard – ground surface treatment and placement of imported fill; and geotechnical, contaminated land and acid sulfate soil investigations.

2.2. Key Environmental Elements

2.2.1. Noise

The Coordinator-General's conditions establish a framework for managing the impacts of noise. The Imposed Conditions do not establish noise limits. Compliance with the Imposed Conditions noise requirements involves demonstrating the implementation of the endorsed CEMP and associated Noise and Vibration Management Plan. This establishes the management measures to be applied which aims to achieve the identified noise goals as far as reasonably practicable. The CEMP also includes requirements for the provision of the required community notifications of upcoming work, potential impacts, and how the project team can be contacted in relation to any potential impacts. For Project Works where potential noise impacts are modelled to be above the noise goal but below the noise goal plus 20dBA, this work is authorised where the endorsed CEMP and associated Noise and Vibration Management Plan is being implemented, including communicating construction activities to potential and actual Directly Affected Persons (DAPs). For Project Works where potential noise impacts are predicted to be more than 20dBA above the relevant noise goal, specific engagement is required with DAPs for these works.

Where internal monitoring was not possible, contractors have undertaken external monitoring at nominated locations. To determine compliance with the project's noise requirements and to calibrate modelled predictions the project applies recommended façade attenuation corrections, which consider receiver property type.

In the Northern Area, noise monitoring was undertaken to validate predictive modelling at sensitive places during excavation and ground stabilisation works at the Northern Portal during standard hours. Results indicated that project requirements were met. Noise monitoring in response to complaints was not triggered. Monitoring results for the Northern Area are detailed in Table 3, **Appendix B**.

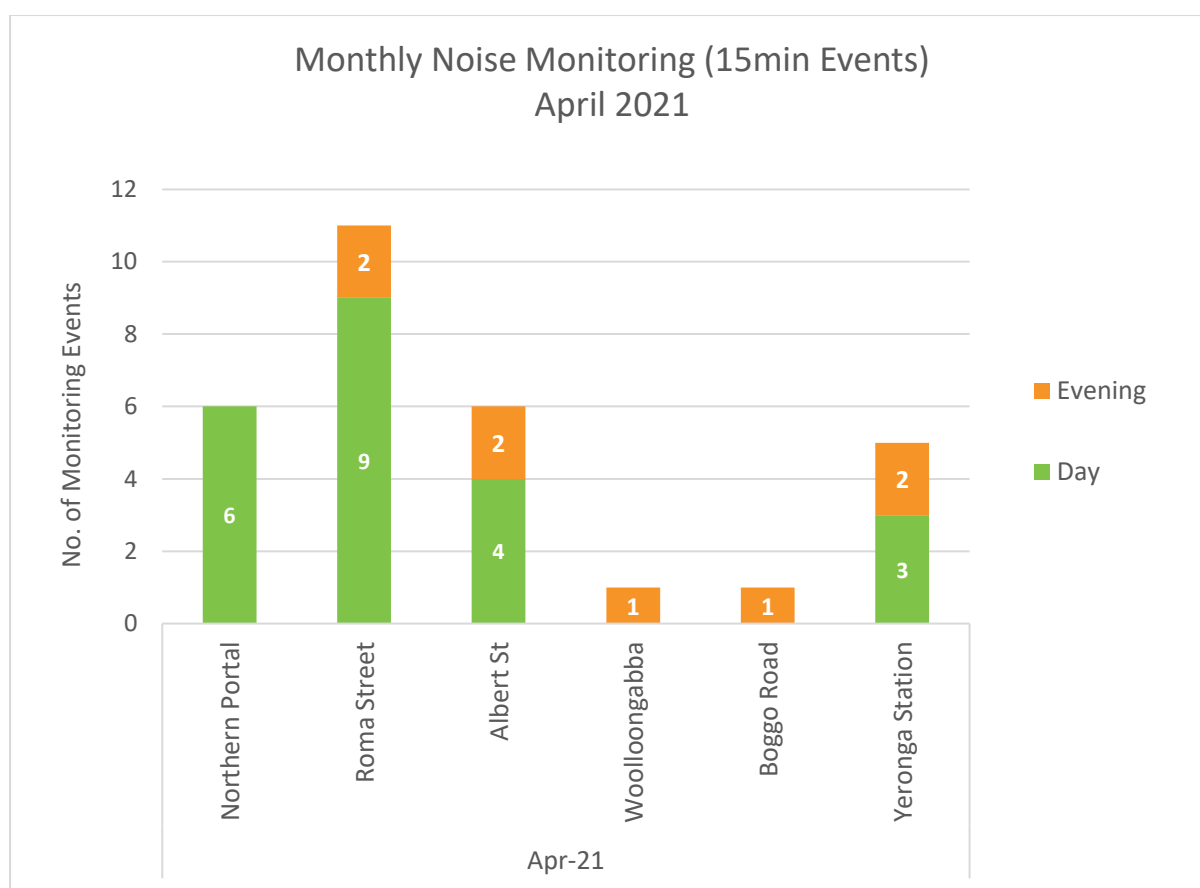
In the Central Area, noise monitoring was undertaken to validate predictive modelling at sensitive places close to the project worksites and in response to noise complaints. Monitoring results for the Central Area are detailed in Table 3, **Appendix B**. The TSD contractors reported that the project noise requirements have been met during this reporting month.

In the Southern Area, noise monitoring was undertaken to validate predictive modelling at Sensitive Places during track lowering works at Yeronga Station outside standard hours. Noise levels met project requirements. Noise monitoring in response to complaints was not triggered. Monitoring results for the Southern Area are detailed in Table 4, **Appendix A**.

Examples of noise management measures on the sites include:

- using plant and equipment separately adjacent to sensitive receptors;
- purpose built noise barriers on the sites or site boundary;
- change in plant type, such as at Boggo Road/Southern area where an almost silent sheet piling machine had been sourced in place of one with a much higher sound power level;
- acoustic spoil sheds;
- positioning of equipment on site to maximise the effects of the site layout and barriers such as the spoil shed itself or other workshops; and
- noise blankets, such as those applied on the Woolloongabba site to further mitigate noise from tonal plant and equipment.

A summary of noise monitoring events for the month is provided in the chart below.



2.2.2. Vibration

Vibration monitoring in the Mayne Area, Northern Area and Southern Area was not triggered.

In the Central Area, vibration monitoring took place to validate predictive modelling for tunnelling, piling, excavation and controlled blasting activities at Roma Street, Albert Street and Southern Portal worksites and in Woolloongabba along the tunnel alignment. Four complaints relating to vibration were received from works occurring along the tunnel alignment. The contractor reported results met the project's

nominated goals. Vibration monitoring results for the Central Area are detailed in **Appendix B** (Table 2).

2.2.3. Air Quality

2.2.3.1. Dust Deposition

Dust deposition monitoring was conducted at Mayne Yard, RNA and Southern worksites however due to the total rainfall during the period dust deposition gauges overtopped and therefore results are not deemed valid. Dust deposition results for remaining worksites met the project dust deposition air quality goal¹. A summary of dust deposition monitoring is provided in the table below.

Air Quality – Dust Deposition Monitoring			
Area	Worksite	Monitoring Location	Comments
Mayne Area	Mayne Yard	Mayne Yard East	<ul style="list-style-type: none"> - Dust gauge overtopped due to 189mm rainfall at Mayne Yard. - Results are therefore invalid.
Northern Area	RNA / Exhibition	RNA Showgrounds	<ul style="list-style-type: none"> - Dust gauge overtopped due to 189mm rainfall at RNA Showgrounds. - Results are therefore invalid.
	Northern Portal	Northern Portal (near Brisbane Girls Grammar School)	<ul style="list-style-type: none"> - Results met air quality goal.
Central Area	Albert Street	Mary Street	<ul style="list-style-type: none"> - Results met air quality goal.
		Elizabeth Street	<ul style="list-style-type: none"> - Results met air quality goal.
	Boggo Road	Quarry Street (north of the site)	<ul style="list-style-type: none"> - Results met air quality goal.
		Peter Doherty Street/Leukemia Foundation	<ul style="list-style-type: none"> - Results met air quality goal.
	Southern Portal	Dutton Park Station	<ul style="list-style-type: none"> - Results met air quality goal.
		PA Hospital - Central Energy Unit along Kent Street	<ul style="list-style-type: none"> - Results met air quality goal.
	Roma Street	Roma Street Station	<ul style="list-style-type: none"> - Results met air quality goal.
	Woolloongabba	Russian Orthodox Cathedral	<ul style="list-style-type: none"> - Results met air quality goal.
		Woolloongabba Busway	<ul style="list-style-type: none"> - Results met air quality goal.
Southern Area	Clapham Yard	Clapham Yard East	<ul style="list-style-type: none"> - Dust gauge overtopped due to 295mm rainfall at Clapham Yard. - Results are therefore invalid.

2.2.3.2. Particulate Matter and Total Suspended Particulates

Monitoring for particulate matter (PM₁₀) and total suspended particulates (TSP) was conducted at Mayne Yard, Northern, Central and Southern Area worksites during the reporting period.

The Mayne Yard and RNA monitoring unit experienced a data gap of 24 hours on 14 April due to annual calibration requirements. The Clapham Yard unit required off-site maintenance and was not active between 14 to 28 April 2021. An analysis of earthworks production rates and respective TSP and PM₁₀ air quality results demonstrates that activities met project air quality goals during the highest impact activities (See **Appendix A**, Table 7). The PM₁₀ results were also compared with the readings at the

¹ CG air quality goal for dust deposition - 50µg/m³ (over an averaging period of 24 hours).

DES Rocklea Station and are found consistent. Therefore, all worksites met project air quality goals for human health and nuisance.

A summary of particulate monitoring is provided in the table below.

Air Quality – PM ₁₀ / TSP Monitoring			
Area	Worksite	Monitoring Location	Comments
Mayne Area	Mayne Yard	Mayne Yard North	<ul style="list-style-type: none"> - Results met air quality goals. - Data gap due to annual calibration on 14 April 2021.
Northern Area	RNA / Exhibition	Lanham Yard	<ul style="list-style-type: none"> - Results met air quality goals. - Data gap due to annual calibration on 14 April 2021.
	Northern Portal	Brisbane Girls Grammar School	<ul style="list-style-type: none"> - Results met air quality goals.
Central Area	Albert St	iStay River City and Capri (Corner of Mary Street and Albert Street)	<ul style="list-style-type: none"> - Results met air quality goals.
	Boggo Rd / Southern Portal	North-east of Boggo Road worksite	<ul style="list-style-type: none"> - Results met air quality goals.
	Roma St	Roma Street Station	<ul style="list-style-type: none"> - Results met air quality goals.
	Woolloongabba	Place Park, Woolloongabba	<ul style="list-style-type: none"> - Results met air quality goals.
Southern Area	Clapham Yard	Clapham Yard	<ul style="list-style-type: none"> - Results met air quality goals during peak earthworks activities. - Data gap from 14 to 28 April due to annual calibration and maintenance requirements.

2.2.4. Water Quality

Monitoring and reporting on water quality was undertaken in accordance with the Project's Water Quality Management Plans.

2.2.4.1 Surface Water

Routine monitoring was undertaken at the receiving waters of active worksites in accordance with Water Quality Management Plans.

Post-rainfall monitoring was triggered at Mayne Yard and Clapham Yard following rainfall that exceeded 20mm trigger from 4 to 8 April 2021. Results from post-rainfall monitoring in receiving waters at Breakfast Creek, Moolabin Creek and Rocky Water Holes Creek met project water quality discharge criteria².

No active surface water discharge occurred at the Northern Portal site during the month. Post-rainfall monitoring was triggered at the Northern Portal site following a rainfall event that exceeded 44mm over 24 hours (TSD CEMP) on 5 to 6 April 2021. Post-rainfall monitoring in receiving waters at York's Hollow met project water quality discharge criteria.

Active surface water discharge (dewatering through water treatment plant) was undertaken in the Central Area at the Roma Street Woolloongabba and Boggo Road worksites. Active surface water

² Guidelines for Best practice Erosion and Sediment Control (International Erosion and Sediment Control Association, 2008) and the Department of Transport and Main Roads' Technical Standard MRTS52 – Erosion and Sediment Control.

discharge (dewatering by pumping) was also undertaken at the Southern Portal worksite. Surface water discharge results met project water quality discharge criteria. Post-rainfall monitoring was triggered at Central Area worksites following a rainfall event that exceeded 44mm over 24 hours (TSD CEMP) on 5 to 6 April 2021. Post-rainfall monitoring in receiving waters at Norman Creek and the Brisbane River met project water quality discharge criteria.

Surface water quality monitoring is summarised in the table below:

Surface Water Quality Monitoring					
Area	Worksite	Discharge	Post-Rain Monitoring	Routine Monitoring	Comments
Mayne Area	Mayne Yard North	Yes	Yes	N/A	<ul style="list-style-type: none"> - Passive surface water discharge. - Post-rainfall monitoring met project water quality discharge criteria.
Northern Area	Northern Portal	No	Yes	Yes	<ul style="list-style-type: none"> - Passive surface water discharge. - Post-rainfall monitoring met project water quality discharge criteria.
Central Area	Albert Street	No	Yes	Yes	<ul style="list-style-type: none"> - No surface water discharges. - Post-rainfall monitoring met project water quality discharge criteria.
	Boggo Road	Yes	Yes	Yes	<ul style="list-style-type: none"> - Active surface water discharge monitoring met project water quality discharge criteria. - Post-rainfall monitoring met project water quality discharge criteria.
	Roma Street	Yes	Yes	Yes	<ul style="list-style-type: none"> - Active surface water discharge monitoring met project water quality discharge criteria. - Post-rainfall monitoring met project water quality discharge criteria.
	Woolloongabba	Yes	Yes	Yes	<ul style="list-style-type: none"> - Active surface water discharge monitoring met project water quality discharge criteria. - Post-rainfall monitoring met project water quality discharge criteria.
	Southern Portal	Yes	Yes	Yes	<ul style="list-style-type: none"> - Active surface water discharge monitoring met project water quality discharge criteria. - Post-rainfall monitoring met project water quality discharge criteria.
Southern Area	Clapham Yard	Yes	Yes	N/A	<ul style="list-style-type: none"> - Passive surface water discharge. - Post-rainfall monitoring met project water quality discharge criteria.

2.2.4.1. Groundwater

There were no groundwater discharges at Mayne, Northern or Southern Area worksites.

Groundwater discharge occurred in the Central Area at Roma Street, Albert Street, Woolloongabba and Boggo Road worksites. The groundwater discharge results reported for the month exceeded the Project's Water Quality Objectives (WQO's)³ for total nitrogen, oxidised nitrogen, ammonia nitrogen, organic nitrogen, total phosphorus, dissolved oxygen and filterable reactive phosphorous. This result however was consistent with the receiving environments baseline monitoring pre-construction data.

Groundwater Quality Monitoring			
Area	Worksite	Discharge	Comments
Mayne Area	Mayne Yard North	No	- No groundwater discharges.
Northern Area	RNA/Exhibition	No	- No groundwater discharges.
	Northern Portal	No	- No groundwater discharges.
Central Area	Albert Street	Yes	- Groundwater discharge (dewatering). - Discharge of groundwater did not meet Project WQO's but was generally consistent with pre-construction conditions and no external influences were introduced by construction activity.
	Boggo Road / Southern Portal	Yes	- Groundwater discharge (dewatering). - Discharge of groundwater did not meet Project WQO's but was generally consistent with pre-construction conditions and no external influences were introduced by construction activity.
	Roma Street	Yes	- Groundwater discharge (dewatering). - Discharge of groundwater did not meet Project WQO's but was generally consistent with pre-construction conditions and no external influences were introduced by construction activity.
	Woolloongabba	Yes	- Groundwater discharge (dewatering). - Discharge of groundwater did not meet Project WQO's but was generally consistent with pre-construction conditions and no external influences were introduced by construction activity.
Southern Area	Clapham Yard	No	- No groundwater discharges.

2.2.5. Erosion and Sediment Control

Site specific Erosion and Sediment Control (ESC) Plans have been prepared, updated, and implemented at Mayne Yard, Northern Portal, RNA Showgrounds, Roma Street, Albert Street, Woolloongabba, Boggo Road, Southern Portal and Clapham Yard.

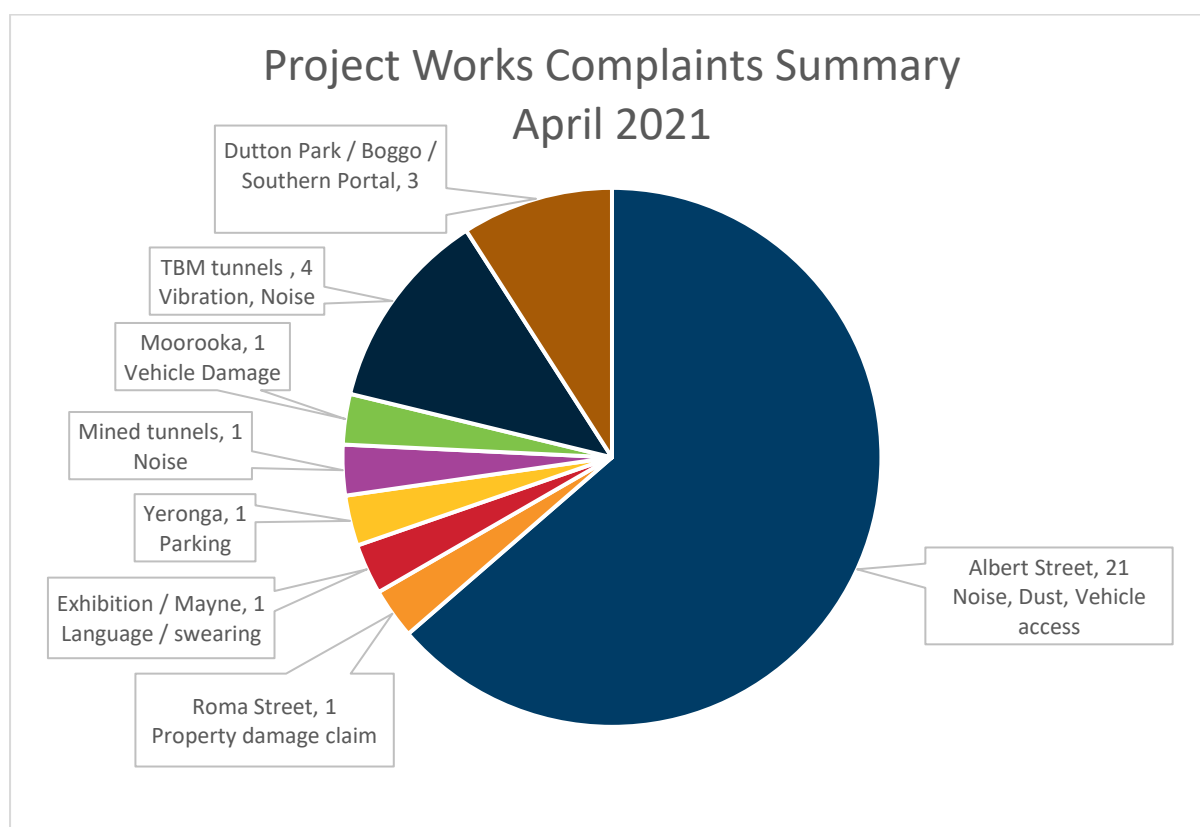
2.3. Complaints Management

A total of 39 complaints were received during the month, of which six were not related to Project Works.

³ The Brisbane River Estuary environmental values and water quality objectives (Basin no 143 – mid-estuary) in the Environmental Protection (Water) Policy 2009.

RIS works received 3 complaints related to workforce behaviour, parking and vehicle damage at RNA/Exhibition, Yeronga and Moorooka worksites, respectively.

TSD activities received 30 complaints related to works at the Roma Street, Albert Street, Woolloongabba and Boggo Road worksites and along the tunnel alignment. 21 complaints were related to noise coming from the Albert Street site outside of standard hours. The noticeable increase in complaints was reflective of specific works that were required to be undertaken after standard hours under external approvals (ie, occupation of the road corridor). The TSD contractors reported that the project noise requirements have been met during this reporting month. The Project Works complaints summary for the month is provided in the following chart.

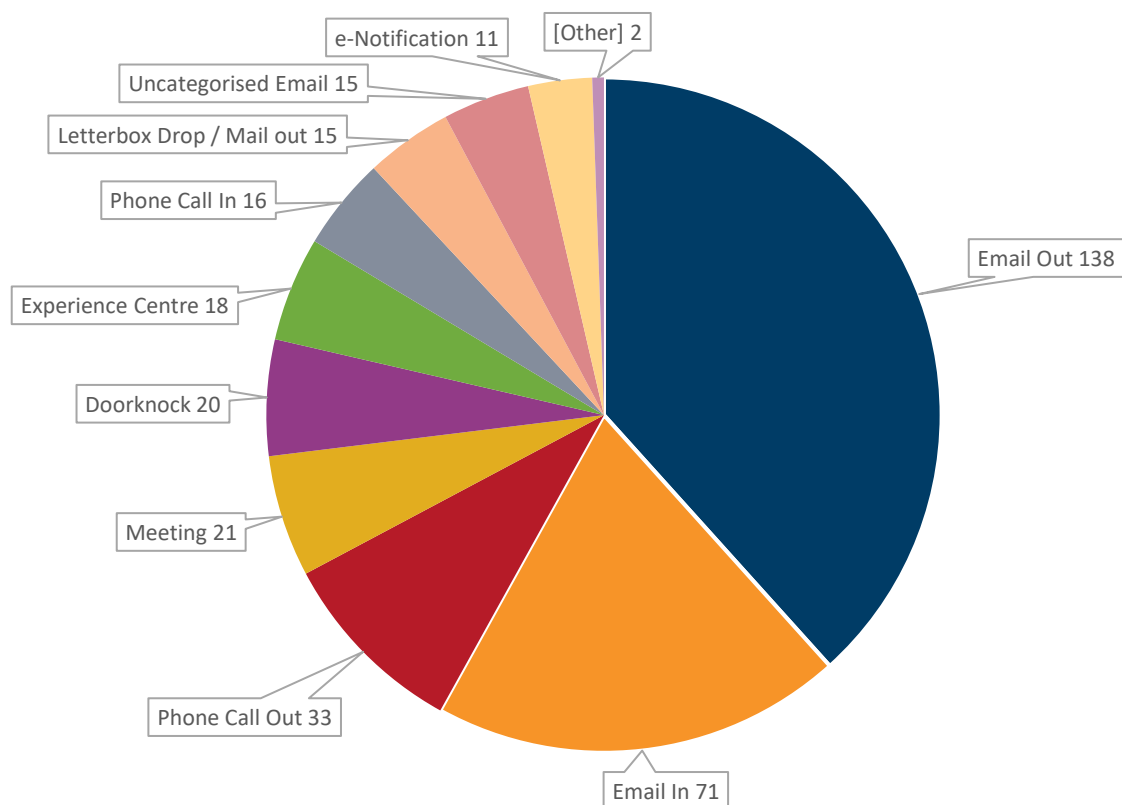


Where attended noise monitoring was undertaken in response to a complaint, the contractor confirmed on all occasions that works undertaken at the time of the complaint adhered to project requirements. In some instances, previous attended noise monitoring data, representative of the relevant construction activities was used to confirm the works adhered to the project noise requirements.

To close out a complaint, the monitoring data is reviewed (where applicable) against compliance with the CEMP, site environmental management plans and permits, and checks that required community notification has taken place. Contractors have also confirmed that planned mitigation to reduce the impact was implemented. This is reviewed together to verify if project requirements have been met. For further details on close-out of complaints refer to **Appendix A**, Table 3 and **Appendix B**, Table 10.

For scheduled out of hours works, community notification was provided, as well as regular project updates. Stakeholder engagement undertaken on the project during the month is summarised in the chart below:

Stakeholder Engagement April 2021



2.4. New Upcoming Project Works

The key new planned Project Works for the coming months include:

Area	New planned works in the coming months
Mayne Area	Mayne Yard North – bridge (BR11/13) piling; Ferny Grove Flyover pier protection; OHLE foundation works; installation of lighting tower foundations; Breakfast Creek bridge clearing of mangroves; graffiti removal facility and crew facility buildings; and commencement of sewer and water installation.
Northern Area	<ul style="list-style-type: none"> Northern Corridor – completion of Normanby drainage and sewer work; piling for Bowen Bridge and ICB pier protection; installation of OHLE foundations; signal foundations and signaling hut installation. RNA/Exhibition – drainage works; sacrificial retaining wall installation; form, reo, pour concrete (FRP) for western viaduct (BR43); and FRP and services works for new RNA substation and switch room. Northern Portal – pile anchors and ground anchors to be installed in May; capping beam and portal beam construction to continue in May; commissioning of TBM retrieval gantry crane in May; and construction of TBM clearing pad in June-August.
Central Area	<ul style="list-style-type: none"> Roma Street – Station building tower crane installation in May; and TBM 1 break-in structure to commence in May. Albert Street – Lot 1 - second row of props to be installed in May-June and blasting to commence in May; Lot 2 - 24-hour tunnelling will continue and recommence drill and blast within the acoustic enclosure; and Lot 3 - ongoing capping beam construction and station box excavation.

Area	New planned works in the coming months
	<ul style="list-style-type: none"> • Woolloongabba – 24/7 excavation operations with TBMs and road headers (including rock hammering); continuous spoil haulage and large concrete deliveries for back of house and station building structures construction; and cross passage works north of Woolloongabba site to commence in late May. • Boggo Road – ongoing excavation of station box and northern cavern beneath the canopy tubes; drainage works underground primary structure commencing in May; and installation of second tower crane in May. • Southern Portal – continue utility relocation and Scheduled Corridor Access System (SCAS) works in the rail corridor in May-June; and ongoing piling, earthworks, stormwater upgrade and site establishment.
Southern Area	<ul style="list-style-type: none"> • Yeronga Station – Platform 1 demolition and preparation work for temporary scaffold overpass. • Clapham Yard – site compound establishment; demolition of buildings; and bulk earthworks.

2.5 Non-Compliance Events

No new NCEs have been raised this month. The summary of NCEs to date is shown in the table below.

Status	Date of event	Category	Area as on the Report	Conditions affected	Gate 1	Gate 2	Gate 3	Gate 4	Gate 5
Open									
Closed									
CRRDA-001-RIS-001	11/09/19	Noise	Yeronga Station	4, 10, 11	11/10/19	14/11/19	26/11/19	18/12/19	01/10/20
CRRDA-002-TSD-001	27/03/20	ESC	Woolloongabba	4, 15, 18	30/03/20	31/03/20	22/04/20	06/11/20	31/05/20
CRRDA-003-TSD-002	27/03/20	ESC	Boggo Rd	4, 15, 18	30/03/20	31/03/20	22/04/20	06/11/20	31/05/20
CRRDA-005-TSD-004	27/03/20	Reporting	Albert St, Boggo Rd, Roma St, Woolloongabba	4, 6, 11, 13	30/03/20	31/03/20	22/04/20	06/11/20	31/05/20
CRRDA-006-TSD-005	27/03/20	Air Quality	Albert St, Boggo Rd, Roma St, Woolloongabba	13	30/03/20	31/03/20	22/04/20	06/11/20	31/05/20
CRRDA-004-TSD-003	28/03/20	Traffic	Boggo Rd	4, 10, 14	30/03/20	31/03/20	22/04/20	06/11/20	31/05/20
Withdrawn									
CRRDA-007-RIS-002	04/01/20	Air Quality	Mayne Yard, Victoria Park, Yeronga, Fairfield	13	28/04/20	30/04/20	Withdrawn		
CRRDA-008-TSD-006	04/08/20	Working Hours	Roma Street	4, 10	28/04/20	30/04/20	Withdrawn		
Gate 1 - EM notification to contractor, NCE confirmed Gate 2 - 48 hour NCE notification submitted to CG Gate 3 - 14 day report submitted Gate 4 - 14 day report uploaded to CRR website Gate 5 - Records of mitigation / preventative measures submitted to the CG					Complete				

Throughout construction activities, events and incidents are routinely investigated to verify compliance with the Imposed Conditions and to verify that management and mitigation measures are implemented in accordance with CEMP and sub-plans.

Appendix A – RIS Monthly Report

Monthly CGCR Report – April 2021

**Cross River Rail – Rail, Integration and Systems
Alliance**

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1 Progress Summary - Relevant Project Works

The following Project Works were undertaken in April 2021:

Table 1: Summary of Project Works completed during the reporting period

Area	Project Works
Mayne Area	<ul style="list-style-type: none"> Mayne Yard North Continuous flight auger (CFA) ground improvement piling for RSS walls Ferny Grove Flyover pier protection piling Retaining walls construction Installation of Stabling Yard fence Drainage Reef Net and Signalling relocation
Northern Area	<ul style="list-style-type: none"> RNA FRP scope for RC21 pier protection under O'Connell Terrace centre pier continued Rock excavation for corridor widening (western side, Stage 2) continued Piling of BR43 western viaduct has continued RNA floodlight relocation completed <ul style="list-style-type: none"> Northern Corridor Earthworks for Feeder Station and Formation works south of Bowen Bridge Road commenced FRP scope on Bowen Bridge Pier Protection (RC22/23) continued
Southern Area	<ul style="list-style-type: none"> Yeronga Station Yeronga Dual Gauge track lowering during the extended Easter 2021 SCAS Lake Street Tree Clearing completed Platform 1 demolition works commenced <ul style="list-style-type: none"> Clapham Yard Ground Surface Treatment and placement of fill commenced for temporary laydown areas Geotechnical, contaminated land and acid sulfate soil investigations.

The following table summarises the upcoming Project Works:

Table 2: Summary of upcoming Project Works

Area	Project Works
Mayne Area	<ul style="list-style-type: none"> Mayne Yard North Commence Tripod Bridge piling mid-May 2021 Ferny Grove Flyover pier protection (RC14) end May 2021 Commence BR08 (Breakfast Creek Bridge) clearing of mangroves Continue Stabling Yard Security Fencing including Capping Beams/retaining walls and posts Continue Mayne Yard North, Access Roads and Carpark drainage scope Commence Sewerage, Water and Decanting scope Commence Graffiti Removal Facility and Crew Facility Building Continue services route works OHLE Foundations in Mayne Yard North Install Lighting Tower Foundations
Northern Area	<ul style="list-style-type: none"> RNA Drainage at the Southern section FRB for the western viaduct FRP and services works for new RNA substation and switch room <ul style="list-style-type: none"> Northern Corridor Complete drainage works in Normanby section Signal foundations and signalling hut installation

Area	Project Works
Southern Area	<ul style="list-style-type: none"> • Yeronga Station Retaining wall demolition FRP of new platform 1 retaining wall Preparation work for temporary scaffold overpass • Clapham Yard Continue site compound establishment and temporary water management / diversions Continue Importing and stockpiling fill ahead of bulk earthworks for Clapham Yard Stabling Yard filling activities

2 Complaints

The below section summarises the complaints relating to the Project Works to be reported in accordance with condition 6(b)(iii) of the CGCR.

Table 3: Summary of Complaints

Date	Location	Issue	Activity source of the concern	Period	Unity Response	Status
01/04/21	Yeronga	Workforce Parking	Easter SCAS	April 2021	<p>The stakeholder called about parking at Yeronga Village shopping centre.</p> <p>The complaint was investigated, and the site team was advised of the stakeholder complaint.</p> <p>The site teams instructed the work groups not to park in the Yeronga Village shopping centre.</p>	Closed
14/04/21	Mooroka	Night works and vehicle movements	PUP Investigations	April 2021	<p>The stakeholder called to enquire about night time truck movements on Moolabin Crescent at Yeerongpilly between the hours of 1:30am to 6:00am.</p> <p>The stakeholder also stated the noise from this activity woke residents on the street.</p> <p>The complaint was received after the sewer investigation works were completed therefore no noise monitoring was undertaken.</p> <p>Investigation of the complaint identified that whilst these PUP works were authorised by the Asset Owner and the stakeholders had received a Works Notice prior to the works, no supplementary updates had been provided prior to the PUP investigation works commencing.</p> <p>Stakeholder was added to the email database.</p>	Closed
16/04/21	Mooroka	Night works and vehicle movements	PUP Investigations	April 2021	<p>The stakeholder emailed to complaint about truck movements on Moolabin Crescent at Yeerongpilly between the hours of 1:30am to 6:00am.</p> <p>The complaints stated the noise from this activity woke residents on the street.</p> <p>The complaint was received after the sewer investigation works were completed therefore no noise monitoring was undertaken.</p> <p>Investigation of the complaint identified that whilst these PUP works were authorised by the Asset Owner and the stakeholders had received a Works Notice prior to the works, no supplementary updates had been provided prior to the PUP investigation works commencing.</p> <p>Stakeholder was added to the email database.</p>	Closed

Date	Location	Issue	Activity source of the concern	Period	Unity Response	Status
20/04/21	RNA	Workforce Behaviour	Traffic Control	April 2021	<p>The stakeholder emailed to complain about traffic control at Exhibition Station, where a traffic controller allegedly asked the stakeholder to dismount their electric scooter as plant and heavy vehicles were crossing near the underpass area.</p> <p>The Site Supervisor was notified, and additional signage installed at the RNA underpass eastern approach.</p> <p>The stakeholder was advised of the action taken to provide more visibility for the underpass users of the potential hazards.</p>	Closed
30/04/21	Clapham Yard	Property damage	Environmental Monitoring	April 2021	<p>The stakeholder called to advise that a parked vehicle had sustained minor damage whilst a Project Team member visited their premises to undertake air quality monitoring.</p> <p>The Project Team member contacted the stakeholder to organise repairs.</p>	Closed

3 Environmental Monitoring Results

The below section summarises the monitoring results to be reported in accordance with condition 6(b)(i) of the CGCR.

3.1 Acoustics

Condition 11(b) of the CGCR requires that during construction, monitoring and reporting on noise and vibration in accordance with the Noise and Vibration Management Plan, a sub-plan of the Construction Environmental Management Plan (CEMP) occurs.

3.1.1 Noise Monitoring

Attended noise monitoring was triggered based on the predictive noise assessments for:

- Yeronga Station extended rail possession over Easter 2021 for Track lowering works (Standard and Non-standard hours)

In accordance with the CEMP, attended outdoors monitoring was undertaken to validate the predictive assessment.

Monitoring was undertaken in order to confirm that the model was accurate and that works could continue to proceed as planned.

Complaint-based noise monitoring because of Project Works was not triggered. Two (2) complaints related to noise occurred during the reporting period however Unity did not undertake noise monitoring as detailed in Table 3.

3.1.2 Noise monitoring Results

The below table summarises the noise monitoring results for reporting period.

The results from noise monitoring are assessed against two performance goals.

The first performance goal (herein referred to as Performance Goal 1), is determined as per Condition 11(a), Table 2, LA₁₀ noise goals.

The second performance goal (herein referred to as Performance Goal 2), is determined as per (Condition 11(c), using Table 2 LA₁₀ noise goal and adding + 20dBA.

An exceedance (predicted or measured) of either of these performance goals does not necessarily represent a potential or actual Non-Compliance Event.

Indeed, if the Project Works were authorised to proceed under Imposed Condition 10 and the DAP engagement process as occurred as per Imposed Condition 11.

The purpose of these two performance goals is to inform:

- The extent of management measures that can reasonably and practically be implemented during the execution of the Relevant Project Works to minimise impact to DAPs, and
- Extent and type of consultation with DAPs prior to and leading up to the Relevant Project Works commencing.

The community, stakeholders and DAP consultation and engagement process which is based on the outcomes of the predictive modelling is presented in Attachment 6.

The below flowchart with has been reproduced from the Noise and Vibration Management sub-plan (C-EMP sub-plan) demonstrates how the predictive noise modelling is used to review proposed Project Works and determine management measures to minimise impact to the surrounding community.

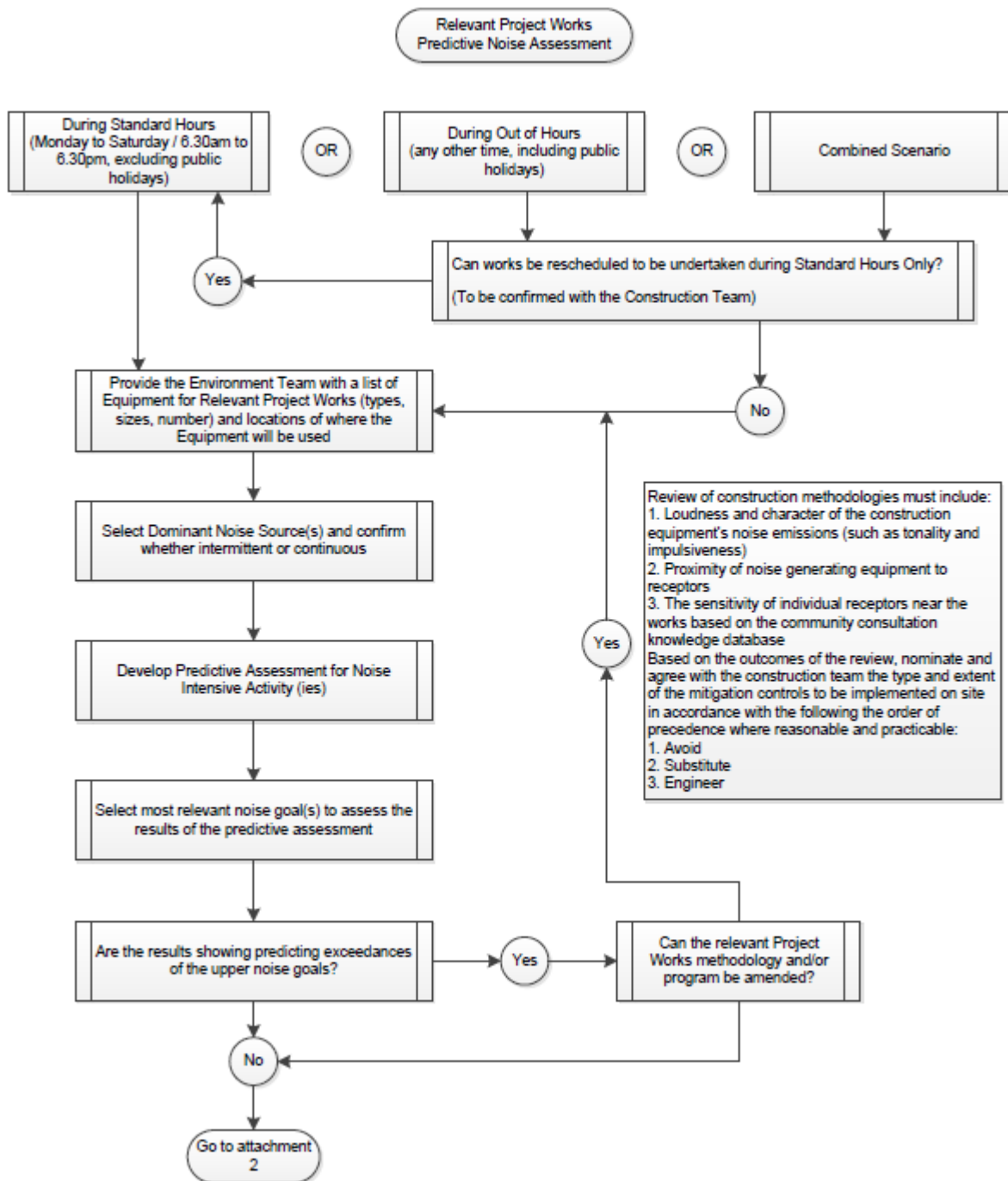


Table 4: Summary of Noise Monitoring Data

Location and Receiver Type Details	Type of Monitoring	Working Hours	Noise Type	Purpose of Monitoring	Predictive model LA ₁₀ (dBA)	Performance Goal 1 (dBA) (Condition 11(a), Table 2, LA ₁₀ noise goals)	Performance Goal 2 (dBA) – (Condition 11(c), Table 2 LA ₁₀ noise goal + 20dBA)	Measured LA ₁₀ (dBA)	Measured LA _{eq} (dBA)	DAP engagement prior to works	Is performance Goal exceeded?	Comments
Residential corner of Christensen and Lake Streets Yeronga	Attended – Outdoors ¹	Out of Standard Hours Public Holiday 02/04/21 – 14:25	Intermittent	Construction Monitoring at Sensitive Places - Model Verification	79 (outdoors)	52 (Outdoors) (42dBA default goal + 10dBA façade reduction) ²	72 (Outdoors) (52+ 20dBA)	62	59	Yes Standard and bespoke	No exceedance of Performance Goal 2	Earthworks / Track works For interpretation, please refer to section 3.1.4.1.1
Residential 12 Lake Street Yeronga	Attended – Outdoors ¹	Out of Standard Hours Public Holiday 02/04/21 – 14:25	Intermittent	Construction Monitoring at Sensitive Places - Model Verification	79 (outdoors)	52 (Outdoors) (42dBA default goal + 10dBA façade reduction) ²	72 (Outdoors) (52+ 20dBA)	63	62	Yes Standard and bespoke	No exceedance of Performance Goal 2	Earthworks / Track works For interpretation, please refer to section 3.1.4.1.1
Residential 5 Dublin Street Yeronga	Attended – Outdoors ¹	Out of Standard Hours Public Holiday 02/04/21 – 16:28	Intermittent	Construction Monitoring at Sensitive Places - Model Verification	81 (outdoors)	52 (Outdoors) (42dBA default goal + 10dBA façade reduction) ²	72 (Outdoors) (52+ 20dBA)	55	53	Yes Standard and bespoke	No exceedance of Performance Goal 2	Earthworks / Track works For interpretation, please refer to section 3.1.4.1.1
Residential corner of Killarney and Lake Streets Yeronga	Attended – Outdoors ¹	Out of Standard Hours Public Holiday 05/04/21 – 18:18	Intermittent	Construction Monitoring at Sensitive Places - Model Verification	81 (outdoors)	52 (Outdoors) (42dBA default goal + 10dBA façade reduction) ²	72 (Outdoors) (52+ 20dBA)	64	61	Yes Standard and bespoke	No exceedance of Performance Goal 2	Tamping For interpretation, please refer to section 3.1.4.1.1
Residential 4-6 Lake Street Yeronga	Attended – Outdoors ¹	Out of Standard Hours Public Holiday 05/04/21 – 18:34	Intermittent	Construction Monitoring at Sensitive Places - Model Verification	79 (outdoors)	52 (Outdoors) (42dBA default goal + 10dBA façade reduction) ²	72 (Outdoors) (52+ 20dBA)	66	64	Yes Standard and bespoke	No exceedance of Performance Goal 2	Tamping For interpretation, please refer to section 3.1.4.1.1

- Note (1) - Monitoring Method
 - Note 2 of Imposed Condition 11 Table 2 states *Where internal noise levels are unable to be measured or monitored, the typical noise reductions presented in Guideline Planning for Noise Control, Ecoaccess, DEHP, January 2017 (PFNC) apply.*
 - The monitoring was undertaken to validate the model therefore external noise measurements are appropriate to determine the impact of construction noise.
- Note (2) – Façade Attenuation
 - Note 2 of Imposed Condition 11 Table 2 states *Where internal noise levels are unable to be measured or monitored, the typical noise reductions presented in Guideline Planning for Noise Control, Ecoaccess, DEHP, January 2017 (PFNC) apply.*
 - The PFNC guideline can no longer be accessed. The Department of Environment and Science (DES) website still states this guideline is under review and is yet to release an alternative guideline
 - Former revisions of the PFNC, in particular Table 7 stated the following regarding typical noise reductions through the building façade:
 - 5 dB – Window wide open
 - 10 dB – Partially closed
 - 20 dB – single glazed, closed
 - 25 dB – Thermal double glazing, closed
 - The RfPC-4 Technical Report considered that all receptors had closed external single glazing for the assessment of construction noise impacts.
 - The Queensland Ombudsman assessed this assumption for the Airport Link Project and recommended that 10dB be adopted for major infrastructure projects in Queensland¹.
 - Additionally, a number of acoustic studies have shown that 10 dB is a suitable assumption for open windows. Most importantly this requirement only applies to temporary rail works within the project footprint and does not apply to long term operational rail noise exposure.
 - Accordingly, it is considered appropriate to consider a 10 dB reduction on this basis. This assumption can be used for predictive modelling and for noise measurements, where indoor noise measurements are not practicable.

¹ https://www.ombudsman.qld.gov.au/ArticleDocuments/218/Airport_Link_Ombudsman_Statement.pdf.aspx, pages 208-210, Section 9.8.6

3.1.3 Vibration Monitoring

Vibration monitoring was not required during the reporting period based on the predictive vibration assessments for specific activities.

Complaint-based vibration monitoring was not triggered. No complaints related to vibration occurred during the reporting period.

3.1.4 Interpretation

3.1.4.1 Noise Monitoring²

3.1.4.1.1 Extended Rail Possession – Track Lowering - Easter SCAS - Yeronga

Noise monitoring of noise intensive activities associated with the track lowering works at Yeronga during an approved rail possession over Easter at Yeronga Station was undertaken externally. Monitoring was carried out at a variety of locations identified to be likely to experience the highest noise levels due to general earthworks / track works and tamping and regulation of ballast. All sensitive places where the monitoring was carried out were identified as residential DAPs. Monitoring was undertaken during non-standard construction hours. The measured LA₁₀ readings were compliant with the Imposed Conditions for works during standard and non-standard working hours.

There were no noise complaints received during the execution of the works.

Therefore, the RIS scope of works achieved the outcomes set out by the CGCR and OEMP.

3.2 Air Quality

Imposed Condition 13(b) of the CGCR requires that during construction, monitoring and reporting on air quality in accordance with the Air Quality Management Plan, a sub-plan of the CEMP occurs.

Visual monitoring was undertaken during routine environmental inspections. A total of 21 inspections were undertaken by the environment team across Mayne Yard, RNA Showgrounds, Yeronga Station, Clapham Yard and the Northern Corridor.

UNITY has installed the following air quality monitoring devices, therefore data collected from these devices, when active, is reported on in the monthly report regardless of the Project Works occurring.

Table 5: Summary of Air Quality monitoring devices

Monitoring Device Installed by UNITY	Area	Name	Date Installed	Status for the Reporting Period
Dust Deposition Gauge	RNA Showgrounds	AQ-01	13 December 2019	Active
Dust Deposition Gauge	Mayne Yard (Eastern Air Shed)	AQ-04	13 February 2020	Active
Dust Deposition Gauge	Clapham Yard (Eastern Air Shed)	AQ-06	01 February 2021	Active
TSP / PM ₁₀ Monitor	Mayne Yard (Eastern Air Shed)	Mayne Yard	23 April 2020	Active Data gap on 14 April 2021 due to annual calibration

² All free field measurements are undertaken in accordance with the latest revision of the Noise Measurement Manual from the Department of Environment and Science (DES) reference ESR/2016/2195

Monitoring Device Installed by UNITY	Area	Name	Date Installed	Status for the Reporting Period
TSP / PM ₁₀ Monitor	Clapham Yard (Eastern Air Shed)	Clapham Yard	01 February 2021	Active Data gap from 14 to 28 April 2021 due to annual calibration and off-site maintenance
TSP / PM ₁₀ Monitor	RNA (Western Air Shed)	RNA	25 August 2020	Active Data gap on 14 April 2021 due to annual calibration

3.2.1 Dust results

As passive dust deposition gauges are analysed monthly, results span from:

- 13 March 2021 to 12 April 2021 (herein referred to as April 21 result), except for AQ-06 where results were for the duration of 6 March 2021 to 6 April 2021.
- 13 April 2021 to 11 May 2021 (herein referred to as May 2021 results), except for AQ-06 where results were for the duration of 7 April 2021 to 11 May 2021

The April and May 2021 results are detailed below and complied with Imposed Condition 13(b) of the CGCR.

The April 2021 results are however all invalid due to the amount of rainfall experienced during the monitoring periods. All dust deposition gauges overtopped which resulted in a loss of sample. This is a limitation of dust deposition monitoring techniques.

Table 6 Dust deposition gauge results for the reporting period

CGCR Goal (mg/m ² /day)	AQ-01 - RNA Showgrounds (mg/m ² /day)	AQ-04 Abbotsford Rd (E Mayne) (mg/m ² /day)	AQ-06– Clapham yard Showgrounds (mg/m ² /day)
April 2021 results			
120	23	10	13
Total Rainfall during Period	189	189	295
May 2021 results			
120	43	17	47
Total Rainfall during Period	55	55	58

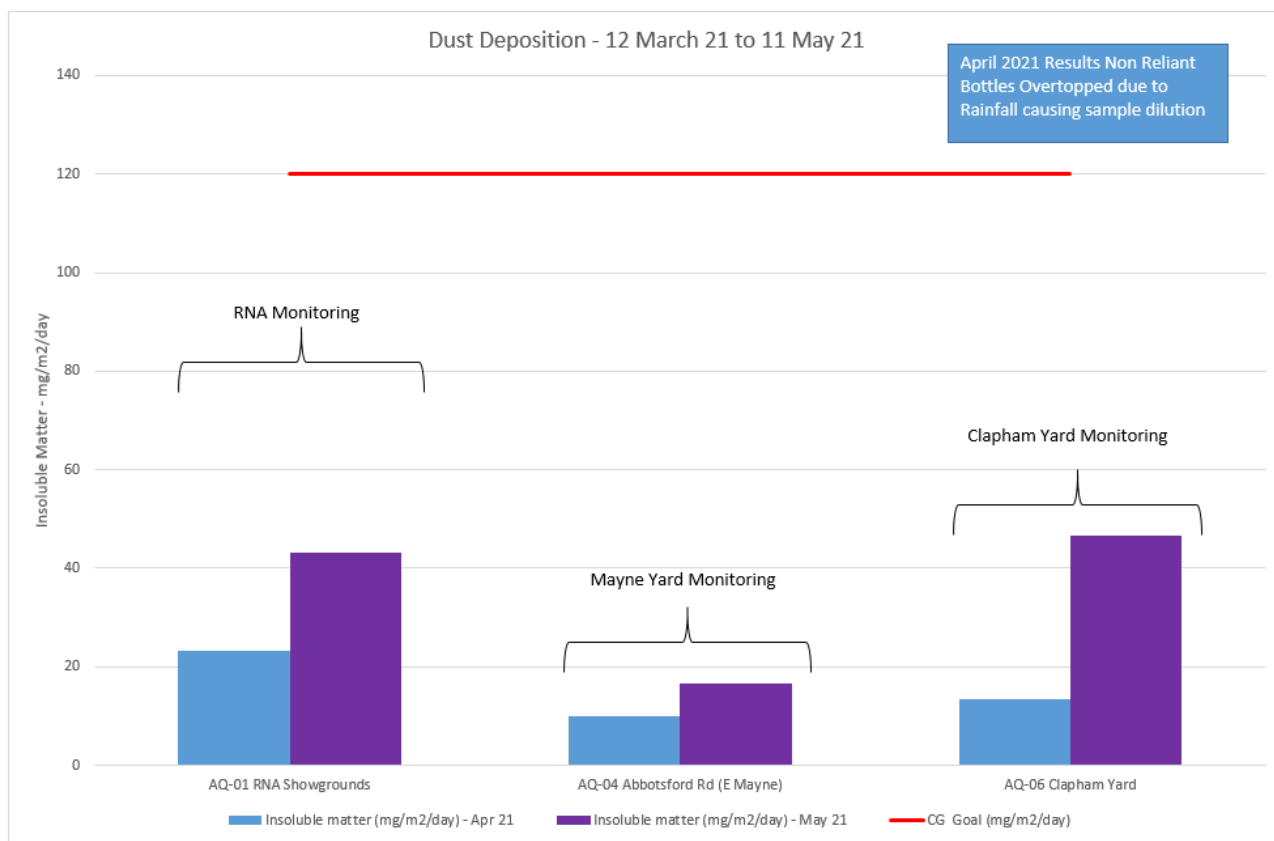


Figure 1 Air Quality Monitoring (Deposited Dust) Results

3.2.2 Particulates results

3.2.2.1 Air Quality Monitoring Stations

Unity had three (3) active air quality monitoring stations set up for the reporting period. All three stations were removed from site on 14 April 2021 for their annual calibration.

The RNA and Mayne Yard stations were remobilised to site on the following day. The Clapham Yard station required maintenance and was remobilised to site on 29 April 2021.

3.2.2.2 Monitoring results

External ambient air quality data was collected for total suspended particles (TSP), and particulate matter less than 10 μm (PM_{10}).

TSP is one of the indicators for which the Coordinator-General has imposed a goal of 80 $\mu\text{g}/\text{m}^3$ (over an averaging period of 24 hours) the project must aim to achieve under Imposed Condition 13(a).

PM_{10} is one of the indicators for which the Coordinator-General has imposed a goal of 50 $\mu\text{g}/\text{m}^3$ (over an averaging period of 24 hours) the project must aim to achieve under Imposed Condition 13(a).

These stations have been set up on site as per AS/NZS 3850 1.1 following consultation with UNITY air quality professionals.

The results are represented in the below figures.

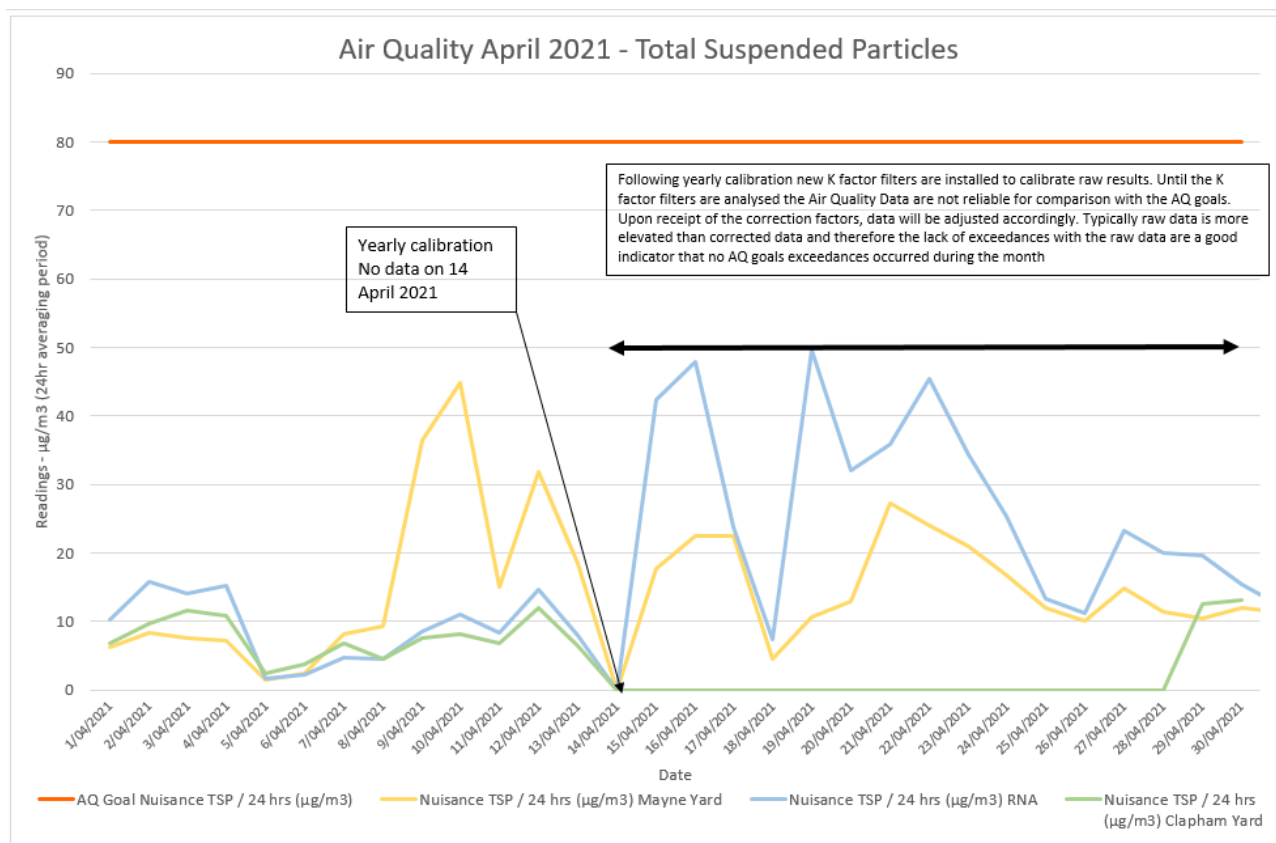


Figure 2 Air Quality Monitoring (TSP) Results

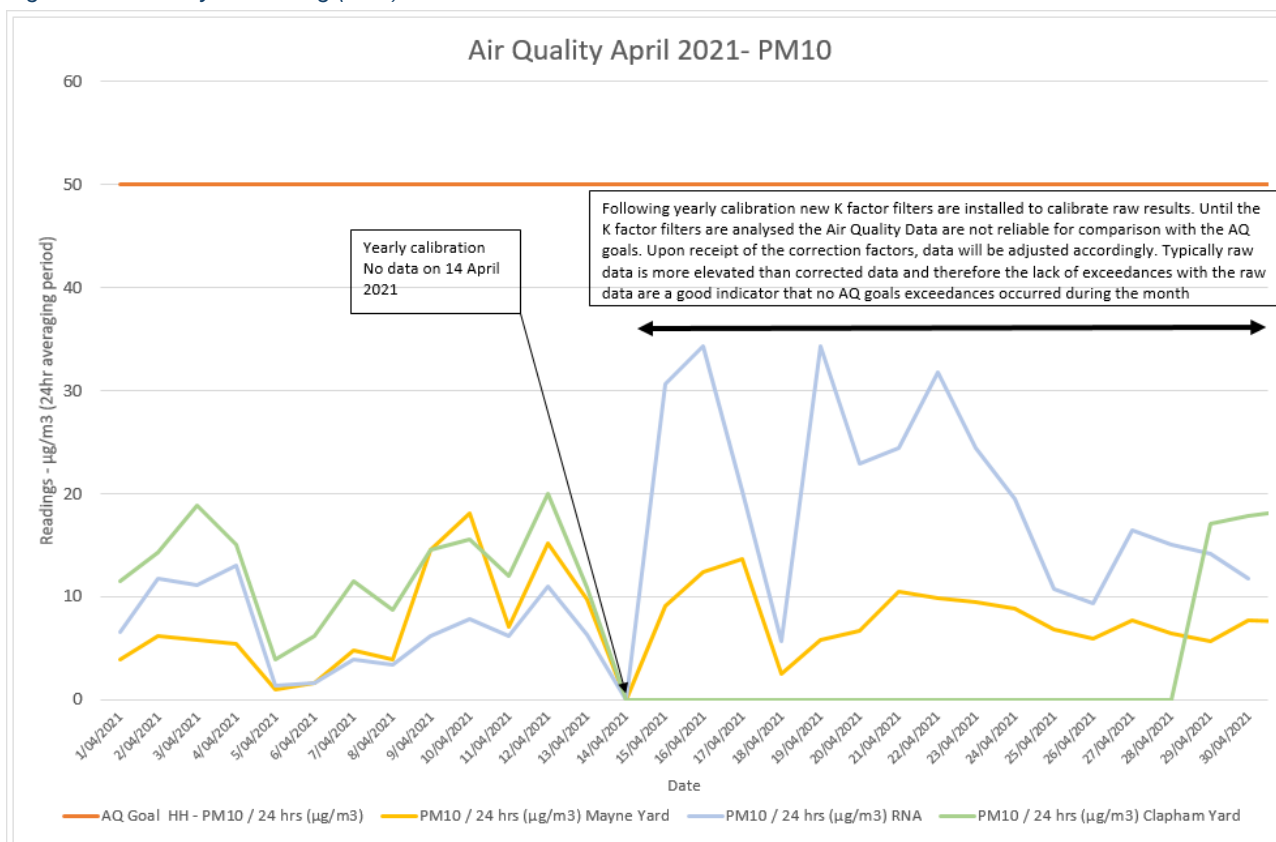


Figure 3 Air Quality Monitoring (PM₁₀) Results

3.2.3 Interpretation

Despite the data gap for PM₁₀ and TSP, an assessment of compliance with the air quality goals can be inferred based on a comparison of the results available against daily earthworks production rates during the reporting period. Indeed, earthworks at Clapham Yard are one of the high-risk activities identified as part of the predictive air quality assessment as triggering air quality monitoring. A summary of daily earthwork rates and associated daily PM₁₀ and TSP records is provided in the below table.

Table 7 Earthworks Production Rates Compared to Air Quality Results

Day	Earthworks quantities (t)	TSP result (nuisance) 24 hrs (µg/m ³)	PM ₁₀ result (health) 24 hrs (µg/m ³)	Compliance Assessment
9 Apr 21	2,772	8	15	No exceedance of the air quality goals
10 Apr 21	2,084	8	16	No exceedance of the air quality goals
12 Apr 21	2,128	12	20	No exceedance of the air quality goals
13 Apr 21	1,104	6	11	No exceedance of the air quality goals
16 Apr 21	696	No data	No data	No exceedance of the air quality goals
27 Apr 21	1036	No data	No data	No exceedance of the air quality goals
28 Apr 21	626	No data	No data	No exceedance of the air quality goals
29 Apr 21	60	13	17	No exceedance of the air quality goals
30 Apr 21	75	13	18	No exceedance of the air quality goals

The peak earthworks activities for the reporting period occurred between 09 and 13 April 2021. During that peak period there were no recorded exceedance of the PM₁₀ and TSP air quality goals. The PM₁₀ readings at are consistent with the readings at the DES Rocklea Station (reproduced in Figure 4).

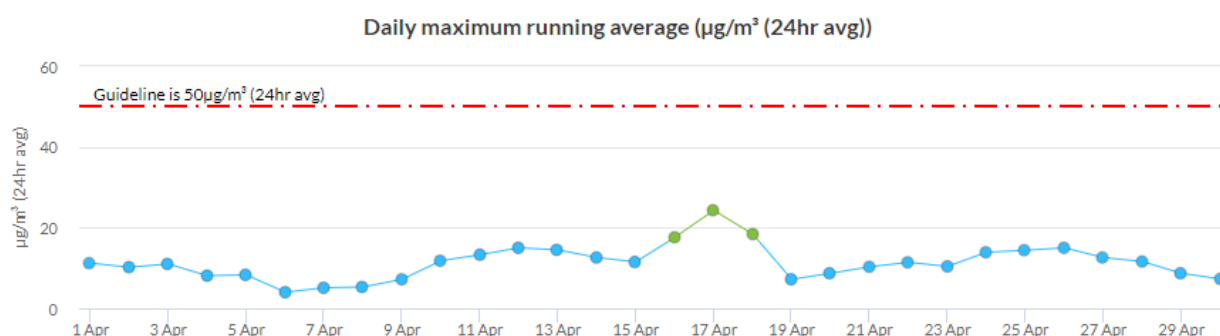


Figure 4: DES Rocklea Air Quality Station Records

Furthermore, during the reporting period:

- There was no evidence of dust being generated and leaving the site boundaries, and
- There were no complaints received associated with air quality concerns.

The Project's certified Air Quality Professional (CAQP) has reviewed the above information and has confirmed that the air quality goals are unlikely to have been exceeded during the April period and therefore the RIS scope of works have met the project outcomes set out by the CGCR and OEMP.

3.3 Water Quality

Condition 15(b) of the CGCR requires that during construction, monitoring and reporting on water quality in accordance with the Water Quality Management Plan, a sub-plan of the CEMP, occurs.

Condition 15(a) requires that discharges of groundwater from Project Works within the Breakfast Creek catchment must comply with the Brisbane River Estuary environmental values and water quality objectives (Basin no.143 – mid-estuary) in the *Environment Protection (Water) Policy 2009*.

Condition 15(a) requires that discharges of groundwater from Project Works within Moolabin Creek, Yeerongpilly – Oxley Creek catchment must comply with the Oxley Creek - Lowland freshwater environmental values and water quality objectives (Basin no.143 (part) – including all tributaries of the creek) in the *Environment Protection (Water) Policy 2009*.

Water quality monitoring to demonstrate compliance with Condition 15(a) was not triggered during the reporting period. There were no groundwater discharges.

Water quality monitoring to demonstrate compliance with Condition 15(b) and Condition 18 was triggered:

- There were passive discharges through type 2 and 3 ESC devices associated with rain events:
 - 4 - 8 April 2021 - A rain event occurred which generated run-off from the active worksites of Mayne Yard and Clapham Yard which triggered a post-rain monitoring event at these locations.
- Visual observations carried out at Moolabin Creek and Rocky Water Holes Creek following the rain event of 17 April 2021 at Clapham Yard did not identify:
 - passive discharges through type 2 and 3 ESC devices, or
 - visual indicators confirming that the water quality of these two creeks had been affected by the Project Works.

There were no active surface water discharges (e.g. dewatering through pumping, sediment basin release).

In-situ physico-chemical parameters results for all monitoring undertaken during the reporting period are presented below.

3.3.1 Rainfall Records

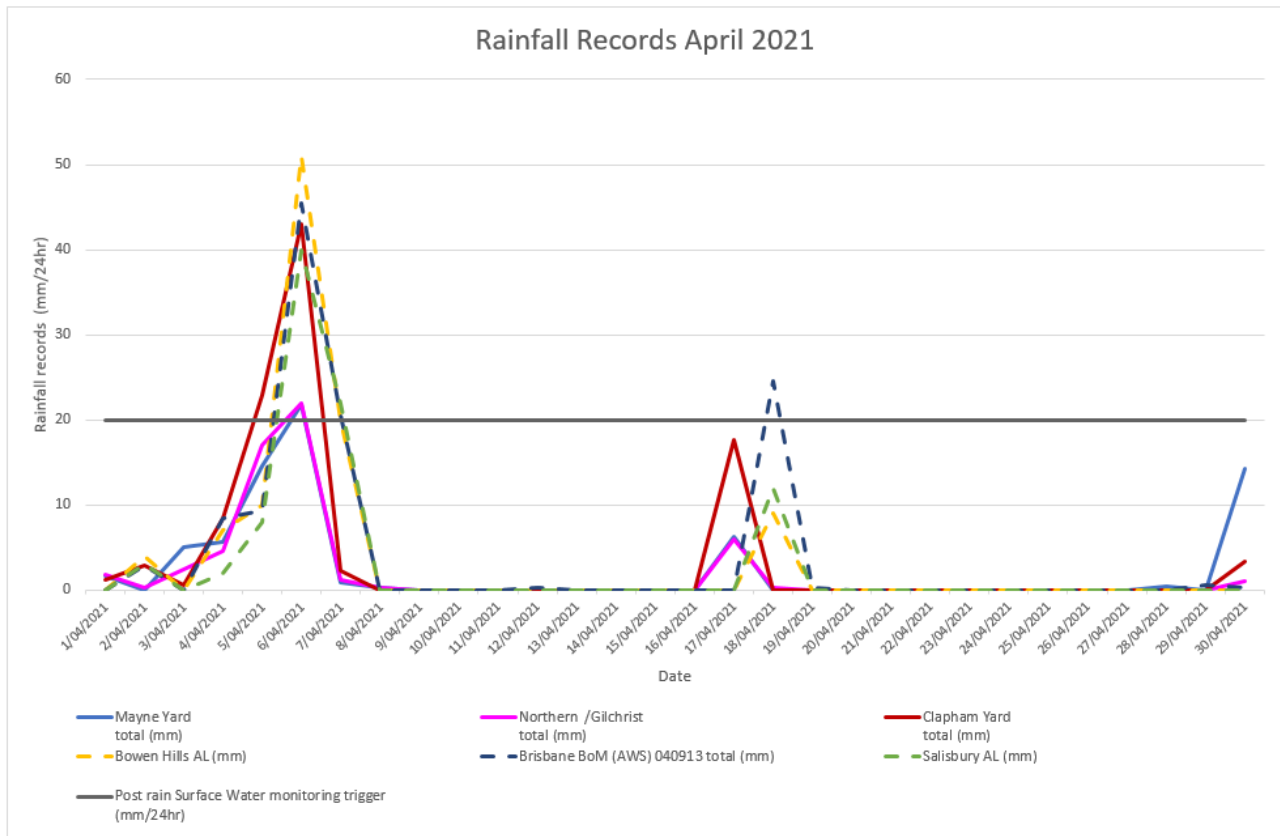


Figure 5 Rainfall Records

3.3.2 Surface Water Discharge Monitoring / Post Rainfall Monitoring Results

Post rainfall monitoring is triggered 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 which would also trigger post rain monitoring consistent with the C-EMP.

Post rainfall monitoring was triggered during the reporting period at the active worksites of Mayne Yard and Clapham Yard.

The results of monitoring at the relevant waterways are presented in the below. When results are in red, they exceed / do not meet the Project discharge criteria for compliance with Imposed Conditions 15 and 18.

Table 8: Surface Water Discharge Monitoring Results

Date	Location	Waterway	Tide	Discharge Criteria ³			
				Turbidity (NTU) Nil until Turbidity / TSS correlation achieved ⁴	TSS (mg/L) 50	DO (%) Nil	pH (pH Unit) Stable pH reading; and General sites: 6.5 – 8.5, or Wallum/Acidic Ecosystems: 5.0 – 7.0
08/04/21	Mayne Yard	Breakfast Creek (SW-01)	Falling Brackish to Marine conditions	In Field:24 Lab: 12	5	105	7.1
08/04/21	Mayne Yard	Breakfast Creek (SW-02)	Falling Brackish to Marine conditions	In Field: 15 Lab: 15	8	93	6.8
08/04/21	Mayne Yard	Breakfast Creek (SW-03)	Falling Brackish to Marine conditions	In Field: 18 Lab: 16	10	93	7.0
08/04/21	Clapham Yard	Moolabin Creek (SW-05)	N/A	Field: 16 Lab: 15	<5	93	7.1
08/04/21	Clapham Yard	Moolabin Creek (SW-06)	N/A	Field: 15 Lab: 14	<5	88	7.3
08/04/21	Clapham Yard	Rocky Water Holes Creek (SW-07)	N/A	Field: 30 Lab:28	<5	88	7.1
08/04/21	Clapham Yard	Rocky Water Holes Creek (SW-08)	N/A	Field: 29 Lab:28	5	75	7.3

3.3.3 Groundwater Discharge Monitoring Results

Groundwater discharge monitoring was not triggered during the reporting period.

3.3.4 Routine Surface Water Monitoring Results

During the reporting period, UNITY did not undertake routine surface water monthly monitoring. A review of the data sample has identified that over 12 months of continuous data collection has occurred with a total of over 18 monitoring events. The frequency of background monitoring has therefore been reduced to bi-annually, with the next sampling round to be undertaken during the dry season, likely mid-2021. This reduction of monitoring frequency is acceptable to continue informing the Dis-1 Credit for the ISCA 'Excellent Rating' the Project is pursuing.

³ Refer to the waterways and water quality management plan, a C-EMP sub-plan for details of derivation of the discharge criteria

⁴ Correlations are typically run on the source water (i.e. basins) not the receiving system where there is a dilution component of potentially diffuse sources of sediments from non-Project related areas. Due to the very limited amount of discharged the RIS Scope of Works has experienced, there is no correlation available for Mayne Yard. Typically, a minimum of 20 data points is used to determine TSS / in field turbidity correlation for site waters.

3.3.5 Interpretation

Post rainfall monitoring undertaken on 8 April 2021 following rainfall events across all active worksites confirmed off-site discharges from Mayne Yard and Clapham Yard met the discharge criteria at the relevant receiving waters of Breakfast Creek, Moolabin Creek and Rocky Water Holes Creek.

Therefore, compliance with Imposed Conditions 15 and 18 was met.

4 Compliance Review

4.1 Non-Compliance Events

The below section summarises the events to be reported in accordance with Condition 5 and Condition 6(b)(ii) of the CGCR.

A non-compliance event (NCE) is defined as Project Works that do not comply with the Imposed Conditions.

4.1.1 Non - Compliance Events Summary

Table 9 Summary of Non-Compliance Events

Event Title	Location, Date, and time of event	Date the Event was Formally Notified to CG/IEM	Conditions Affected	Date the Event Report Formally Sent to CG/IEM	Status of Event
None for this reporting period					

4.2 CEMP Compliance

The below table summarises compliance status with the CEMP and monitoring requirements of relevant sub-plans for the reporting period.

Table 10 CEMP and relevant Subplans monitoring requirements – Compliance Status for the reporting period

Aspect	Monitoring requirement	Activities risk profile	Monitoring undertaken	Compliance status with CEMP / Subplan	Effect of the non-compliance
Air Quality	Visual monitoring program + Additional particulate monitoring as required based on the outcomes of the predictive assessment / risk profile	Moderate to High	Yes – visual monitoring undertaken as part of routine inspections Monitoring for TSP, PM10 and deposited dust also undertaken	Compliant	Not Applicable
Air Quality	Complaints response	Moderate to High	Not triggered – no complaints	Compliant	Not Applicable
Noise	Buffer distance tests based on the outcomes of the predictive assessment based / risk profile of activities	Moderate to High	Yes	Compliant	Not Applicable
Noise	Plant noise audits for noisy plant to validate models input as required	Moderate to High	No	N/A	Not Applicable
Noise	Complaints response	Moderate to High	Not triggered – Unity was only made aware of a noise complaint from 14 and 16 April 2021 after the works were completed so monitoring was unable to be undertaken.	Compliant	Not Applicable
Vibration	Construction Monitoring at Sensitive Places / DAPs - Model verification based on the outcomes of the predictive assessment based / risk profile of activities	Moderate to High	Not required by the property damage mitigation sub-plan	Compliant	Not Applicable
Vibration	Complaints response	Moderate to High	Not triggered – no complaints	Compliant	Not Applicable
Water Quality	Monthly monitoring	N/A	No – monitoring regime reduced to bi-annually	Compliant	Not Applicable

Aspect	Monitoring requirement	Activities risk profile	Monitoring undertaken	Compliance status with CEMP / Subplan	Effect of the non-compliance
Water Quality	Post Rainfall	Moderate to High	Yes	Compliant	Not Applicable
Water Quality	Dewatering	Moderate to High	Not triggered – no dewatering to receiving water systems	N/A	Not Applicable


Attachment 1 CGCR Non-Compliance Event Report (if required)

None for this reporting period.

Attachment 2 Monitoring Locations – Noise



- Legend**
- Project Boundary RFPC - Permanent
 - Project Boundary RFPC - Temporary Construction
 - Project Boundary RFPC - Volumetric
 - Brisbane Imagery (27/09/2020)

A FOR INFORMATION			
Issue	Description	Date	Approved
	Construction Monitoring at Sensitive Places		
Scale 1: 1,000			
			
© EIC Activities GIS			

This map is a user generated static output from EIC Activities Web GIS Viewer and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

GIS OUTPUT			
NOT USED FOR CONSTRUCTION			
Original Size	A3	Drawn	
Coordinate System	GDA MGA94-56	Designed	
Height Datum	AHD	Date Printed	16-May-2021



Cross River Rail - RIS Alliance

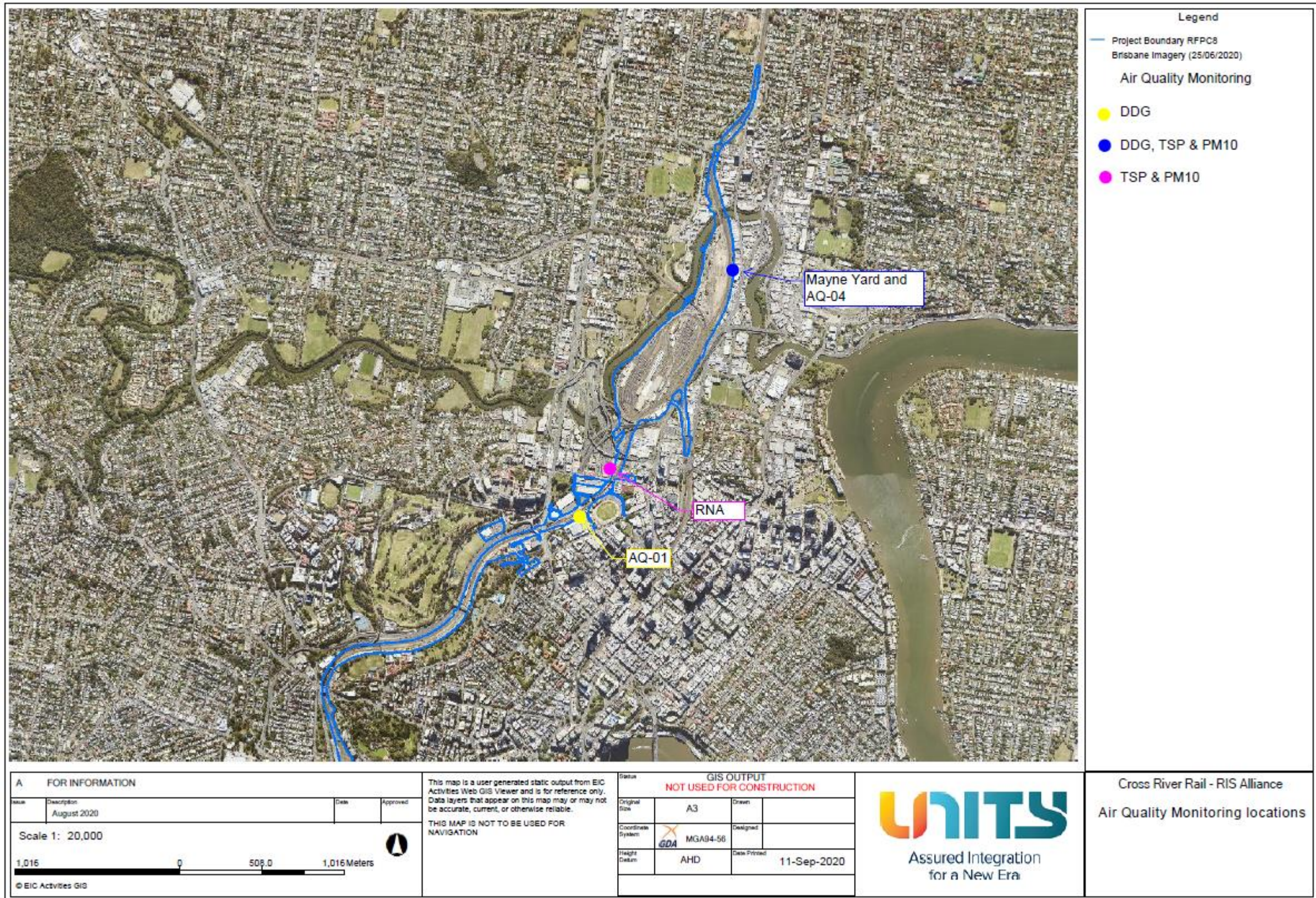
Noise Monitoring Locations

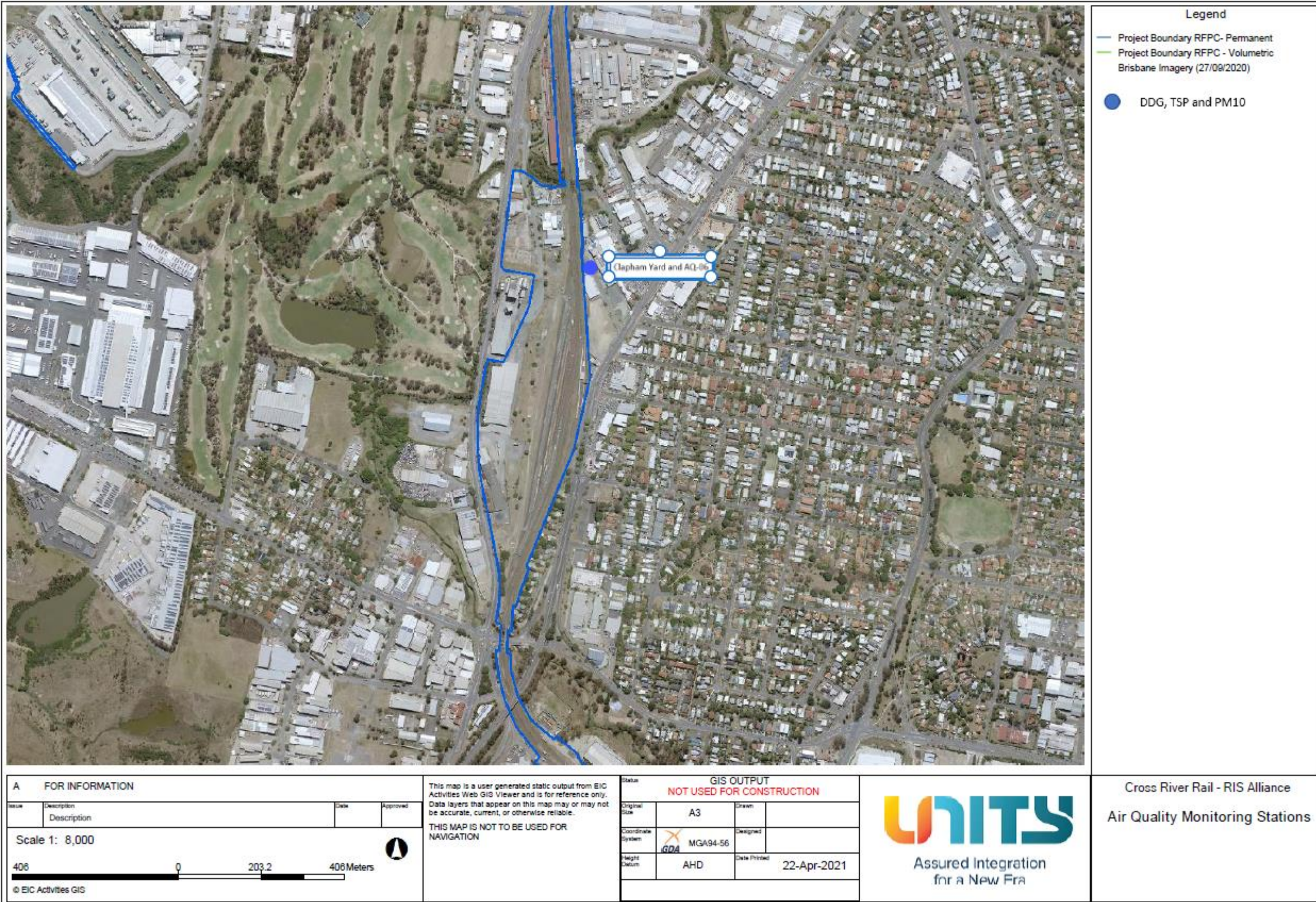
Construction Monitoring at Sensitive Places

Attachment 3 Monitoring Locations – Vibration

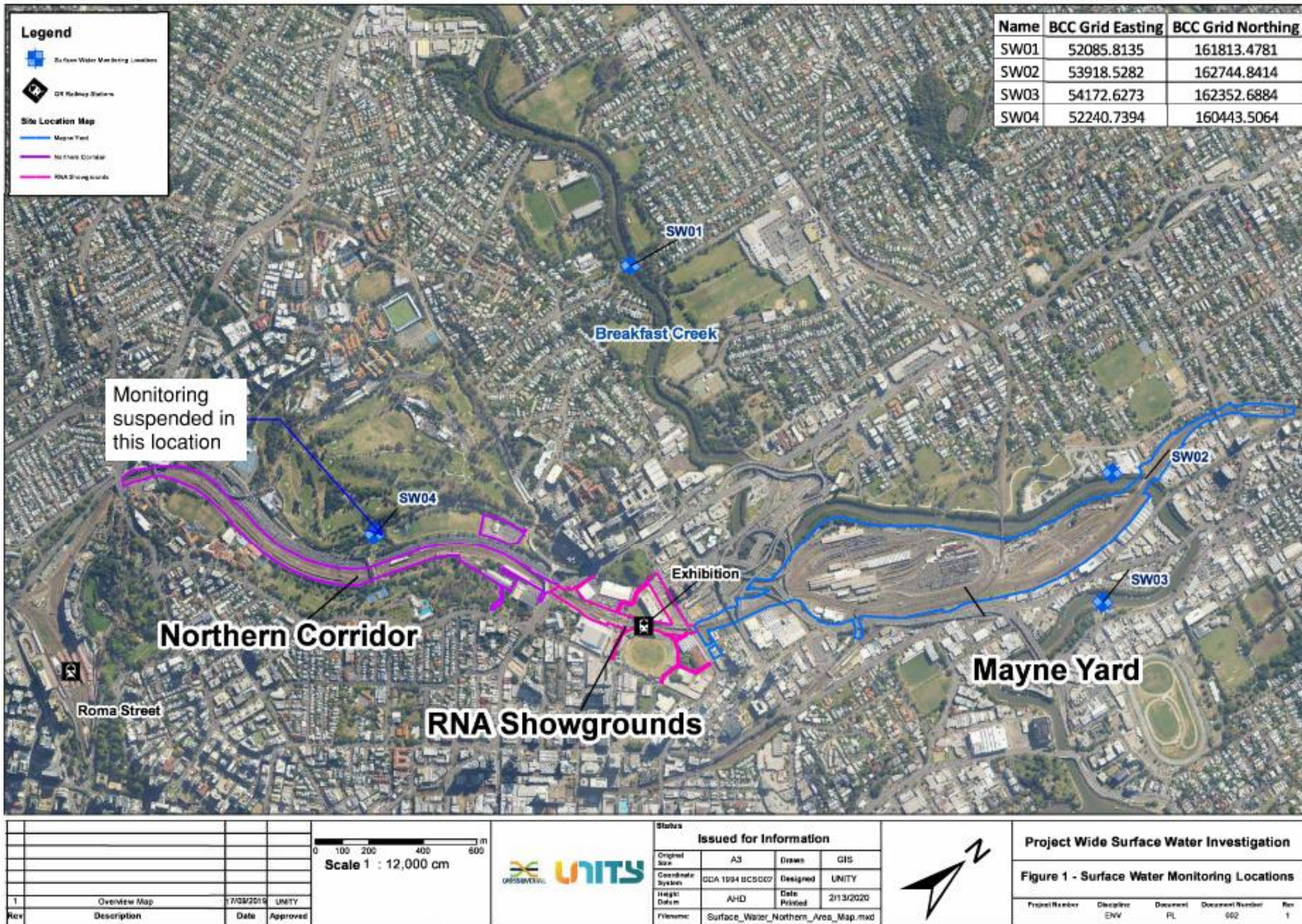
None this reporting period

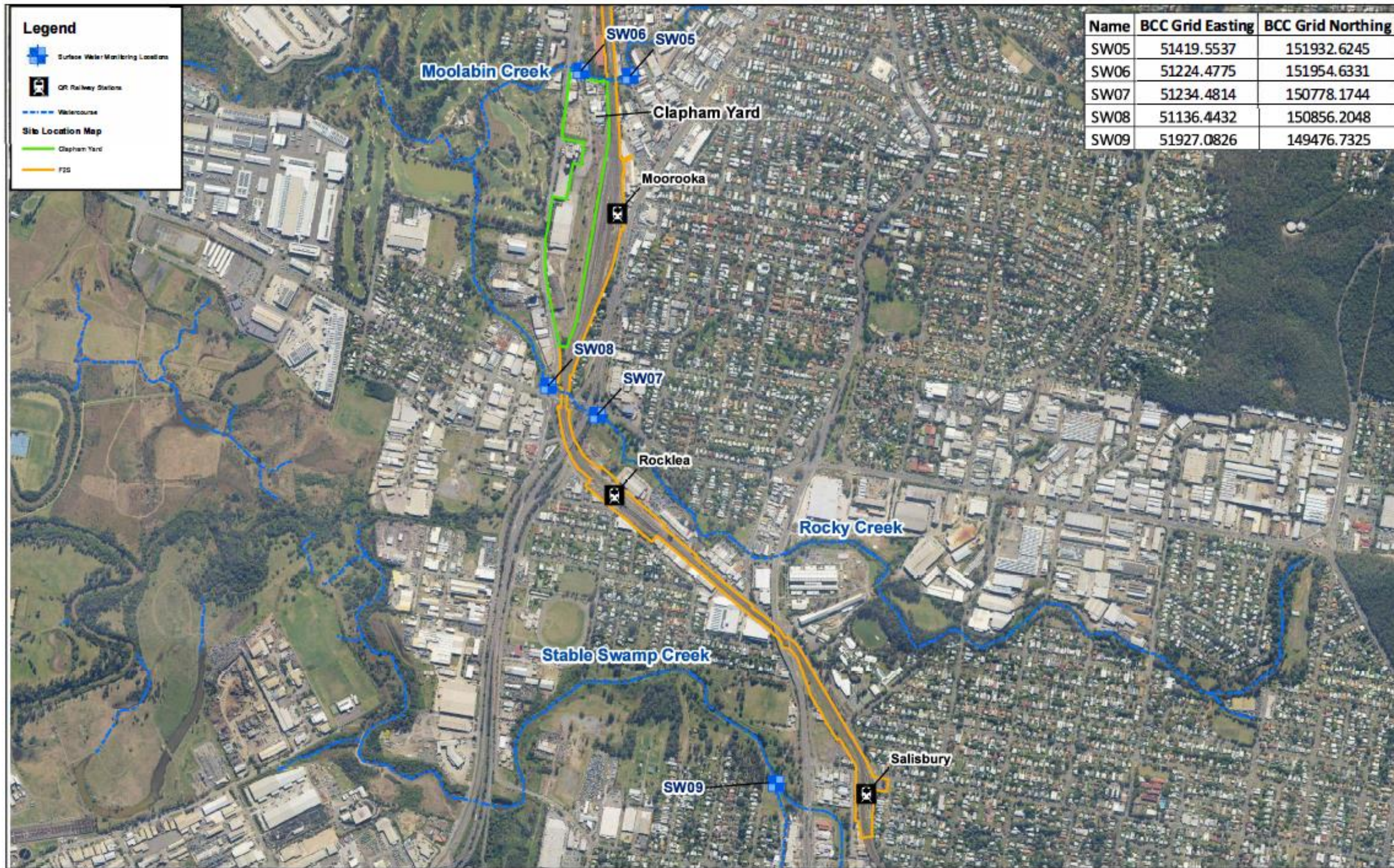
Attachment 4 Monitoring Locations – Air Quality





Attachment 5 Monitoring Locations – Surface Water

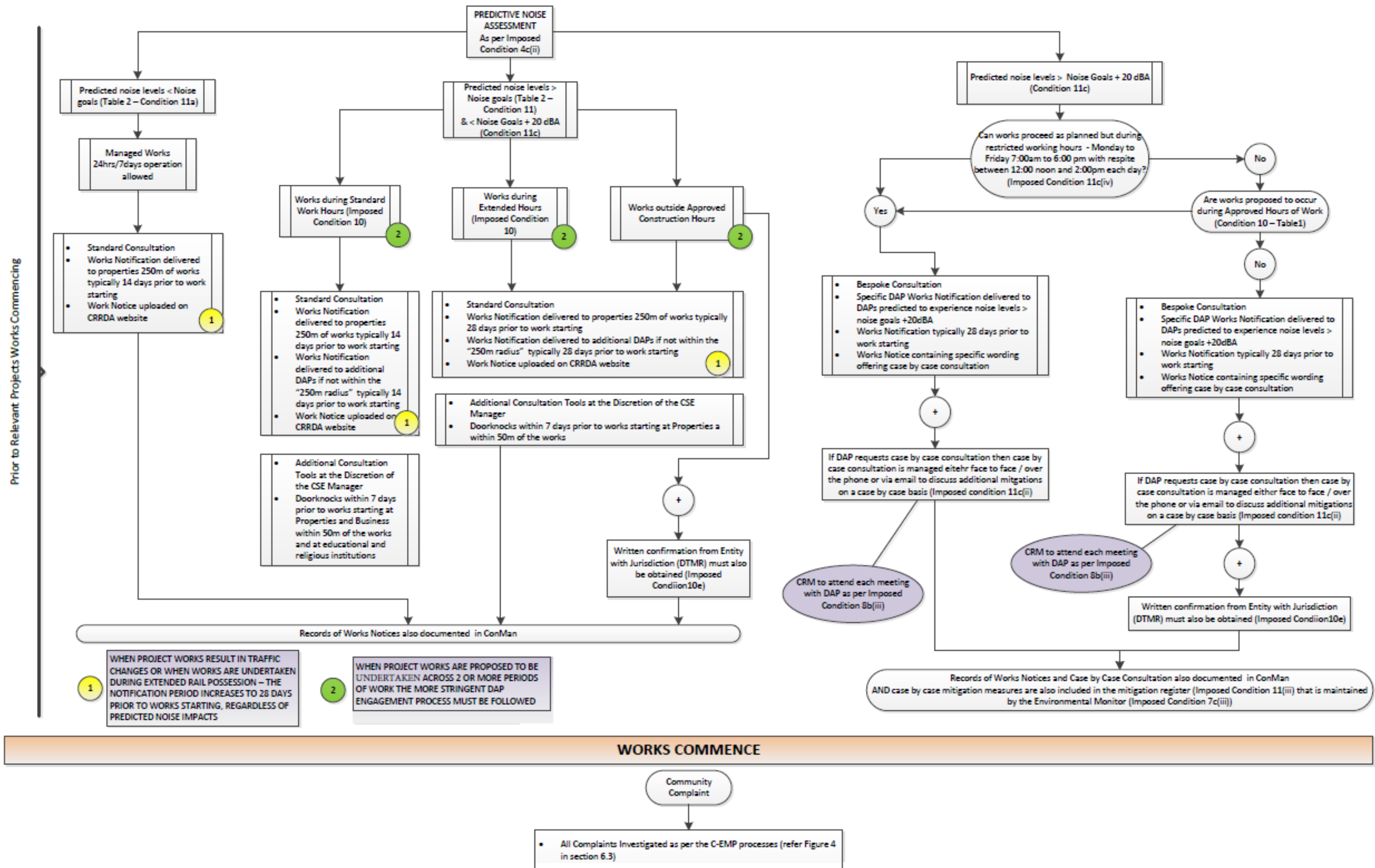




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Attachment 6 DAP Engagement Process

UNITY ALLIANCE – COMMUNITY, STAKEHOLDERS AND DIRECTLY AFFECTED PERSONS CONSULTATION AND ENGAGEMENT PROCESS – (RfPC 9 Conditions)



Appendix B – TSD Monthly Report

COORDINATOR-GENERAL'S MONTHLY REPORT: APRIL 2021

Prepared in accordance with Coordinator-General Imposed Condition 6 - Reporting.

1. Monthly Monitoring Summary

It is CBGU Joint Venture's intent to aim for the Goals and Objectives relevant to vibration, noise, air quality and water monitoring within the practical extent of delivering the Project.

Vibration monitoring was conducted on twelve (12) occasions, and noise monitoring was conducted on twenty-five (25) occasions during April 2021. Each vibration and noise monitoring event confirmed works adhered to project requirements.

Ambient air quality monitoring was conducted at Roma Street, Albert Street, Woolloongabba, Boggo Road, Southern Portal and Northern Portal precinct sites during April 2021. Air quality monitoring confirmed works adhered to project requirements.

Water quality monitoring was conducted before the release of water from the site on twelve (12) occasions. Each monitoring event confirmed project requirements were adhered to. Two (2) rounds of surface water quality monitoring were conducted; these monitoring events confirmed no impacts were generated by the Project.

2. CG Monthly Report – Compliance Assessment Against Imposed Conditions

Whilst not a requirement of Imposed Condition 6, CBGU offers the below Compliance Status Table as a good-will gesture to demonstrate the Project's ongoing environmental performance.

Table 1: Compliance Status – CG Imposed Conditions

CG Condition	Requirement Summary	Compliance Met (Yes/No/NA)	Comment
1.	General conditions – compliance with the Project Changes relevant to the Contractor's scope.	Yes	CBGU project works have been conducted in compliance with the Imposed Conditions.
2.	Outline Environmental Management Plan – timely submission to the Coordinator-General, including required sub plans.	N/A	The OEMP is not an obligation of the CBGU Joint Venture.
3.	Design – the achievement of the Environmental Design Requirements.	Yes	Design and implementation proceeded in accordance with the Environmental Design Requirements.
4.	Construction Environmental Management Plan – all relating to Relevant Project Works.	Yes	All CBGU works were conducted in accordance with the Construction Environmental Management Plan (CEMP) (Rev 7).
5.	Compliance and Incident management – Non-compliance events, notifications and reporting.	Yes	Nil non-compliances occurred during the monitoring period (refer to Section 4).
6.	Reporting – Monthly and Annual reporting.	Yes	All reporting requirements are completed in accordance with Imposed Condition 6.
7.	Environmental Monitor – engaged and functions resumed.	Yes	An Environmental Monitor (EM) is appointed to the Project, and CBGU is committed to working collaboratively to aid the EM's functions under Imposed Condition 7.
8.	Community Relations Monitor – engaged and functions resumed.	Yes	A Community Relations Monitor (CRM) is appointed to the Project, and CBGU is committed to working collaboratively to aid the CRM's functions under Imposed Condition 8.
9.	Community engagement plan – developed and endorsed by Environmental Monitor.	Yes	A Community Engagement Plan (CEP) has been developed and implemented in accordance with Imposed Condition 9. The CEMP has been endorsed with the CEP.
10.	Hours of work – works undertaken during approved hours.	Yes	CBGU project works have been conducted in accordance with the approved hours of work.

CG Condition	Requirement Summary	Compliance Met (Yes/No/NA)	Comment
11.	Noise – Work must aim to achieve internal noise goals for human health and well-being.	Yes	CBGU project work has aimed to achieve internal noise goals for human health and well-being. Where internal noise levels have been unable to be measured, suitable noise reductions have been applied in accordance with Imposed Condition 11. Noise monitoring data is provided within Section 3.2.
	Vibration – Works must aim to achieve vibration goals for cosmetic damage, human comfort and sensitive building contents.	Yes	CBGU project work has aimed to achieve vibration goals for cosmetic damage, human comfort and sensitive buildings. Vibration monitoring data is provided within Section 3.1.
12.	Property damage relating to ground movement	Yes	The management of potential impacts relating to property damage has been completed in accordance with Imposed Condition 12.
13.	Air quality – Works must aim to achieve air quality goals for human health and nuisance.	Yes	CBGU project works have aimed to achieve air quality goals. Air quality monitoring data is provided within Section 3.3.
14.	Traffic and transport – Works must minimise adverse impacts on road safety and traffic flow.	Yes	CBGU project works have been conducted in a manner that has minimised adverse impacts on road safety and traffic flow.
15.	Water quality – Works must not discharge surface water and groundwater from the construction site above the relevant environmental values and water quality objectives.	Yes	CBGU has prepared and manages processes to ensure water quality is managed in accordance with Imposed Condition 15.
16.	Water resources – evaluate potential impact, plan works, implement controls and monitor the inflow of groundwater associated with drawdown.	Yes	CBGU project works are managed in accordance with Imposed Condition 16.
17.	Surface water – Must be designed to avoid inundation from stormwater due to a 2-year (6hr) ARI rainfall event and flood waters due to a 5-year ARI rainfall event and constructed to avoid afflux or cause the redirection of uncontrolled surface water flows, including stormwater flows, outside of worksites.	Yes	Design of the CBGU project works considers the requirements of Imposed Condition 17.
18.	Erosion and sediment control – Provisions for erosion and sediment control must be 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.	Yes	CBGU has prepared and manages processes to ensure erosion & sediment control is managed in accordance with Imposed Condition 18.

CG Condition	Requirement Summary	Compliance Met (Yes/No/NA)	Comment
19.	Acid Sulfate Soils managed as per the <i>Queensland Acid Sulfate Soil Technical Manual</i> .	Yes	CBGU has prepared and manages processes to ensure acid sulphate soils are managed in accordance with Imposed Condition 19.
20.	Landscape and open space – general requirement to minimise impacts on landscapes and open space values and specific requirements around Victoria park	Yes	CBGU project works are designed and implemented in accordance with Condition 20.
21.	Worksite rehabilitation – worksites rehabilitated as soon as practicable upon completion of works or commissioning, and in consultation with Brisbane City Council.	Yes	CBGU project works are designed and implemented in accordance with Condition 21.

3. Environmental Monitoring Results

Monitoring data is provided below in accordance with Imposed Condition 6(b)(i).

3.1 Vibration

Vibration requirements (levels) are defined as goals within Imposed Condition 11. The goals are to be aimed for.

The Coordinator-General Change Report acknowledges instances exist that these goals may not be achieved.

Twelve (12) vibration monitoring sessions were conducted during April 2021.

All vibration monitoring adhered to project requirements and is detailed in the table below.

Table 2: Vibration Monitoring Data

No.	Start Date	Time (AM/PM)	Finish Date	Location (Street Name) (Construction Precinct)	Average Vibration level (mm/s)	Max Vibration Level (mm/s)	Vibration Goal (mm/s)	Receiver / Goal Type	Adhered to Project Requirements (Yes / No)
1.	06/04/2021	4:00:00 PM	06/04/2021	Roma Street (Roma Street Precinct)	-	4.2	10	Heritage Structure (Controlled Blast)	Yes
2.	15/04/2021	2:15:00 PM	15/04/2021	Roma Street (Roma Street Precinct)	-	4.0	10	Heritage Structure (Controlled Blast)	Yes
3.	15/04/2021	9:50:00 PM	19/04/2021	Kent Street (Southern Area)	0.2	0.9	50	Residential	Yes
4.	19/04/2021	3:40:00 PM	19/04/2021	Roma Street (Roma Street Precinct)	-	3.3	10	Heritage Structure (Controlled Blast)	Yes
5.	20/04/2021	2:24:00 PM	23/04/2021	Albert Street (Albert Street Precinct)	0.01	0.1	50	Residential	Yes

No.	Start Date	Time (AM/PM)	Finish Date	Location (Street Name) (Construction Precinct)	Average Vibration level (mm/s)	Max Vibration Level (mm/s)	Vibration Goal (mm/s)	Receiver / Goal Type	Adhered to Project Requirements (Yes / No)
6.	22/04/2021	3:45:00 PM	22/04/2021	Roma Street (Roma Street Precinct)	-	4.3	10	Heritage Structure (Controlled Blast)	Yes
7.	22/04/2021	9:08:00 AM	29/04/2021	Roma Street (Roma Street Precinct)	0.1	0.42	50	Commercial	Yes
8.	22/04/2021	12:59:00 PM	22/04/2021	Walmsley Street (Woolloongabba Precinct)	0.37	0.6	1.2	Residential	Yes
9.	22/04/2021	1:46:00 PM	24/04/2021	Walmsley Street (Woolloongabba Precinct)	0.1	0.85 ^[1]	0.5	Residential	Yes
10.	27/04/2021	12:30:00 PM	27/04/2021	Roma Street (Roma Street Precinct)	-	2.1	10	Heritage Structure (Controlled Blast)	Yes
11.	28/04/2021	9:24:00 AM	4/05/2021	Lockhart Street (Woolloongabba Precinct)	0.06	0.1	0.5	Residential	Yes
12.	30/04/2021	12:35:00 PM	30/04/2021	Roma Street (Roma Street Precinct)	-	5.4	10	Heritage Structure (Controlled Blast)	Yes

- [1] Project works must aim to achieve construction vibration goals.

3.2 Noise

Noise requirements (levels) are defined as goals within Imposed Condition 11. The goals are to be aimed for.

The Coordinator-General Change Reports acknowledge instances exist that these goals may not be achieved.

Noise monitoring was conducted on twenty-five (25) occasions during April 2021. All noise monitoring data adhered to project requirements and is provided in the table below.

Table 3: Noise Monitoring Data

No.	Date	Time (AM / PM)	Location (Street Name) (Construction Precinct)	Purpose of Monitoring	Internal or External ^[3] Monitoring	Activity	Dominant Noise Source	Noise Goal LA10 ^[1]	Noise level LA10 ^[1]	Noise Goal LAeq ^[2]	Noise level LAeq ^[2]	Adhered to Project Requirements (Yes / No)
1.	6/04/2021	4:00:00 PM	Roma Street (Roma Street Precinct)	Construction Monitoring at Sensitive Places	External	Controlled Blast	Construction	-	-	130 ^[4]	103.1	Yes
2.	8/04/2021	12:51:00 PM	Roma Street (Roma Street Precinct)	Construction Monitoring at Sensitive Places	internal	Piling and Ground Stabilisation	Concourse	60	71.4	50	69.3	Yes
3.	12/04/2021	11:44:00 AM	Gregory Terrace (Northern Portal)	Construction Monitoring at Sensitive Places	External	Ground Stabilisation	Construction	62	80.8	52	75	Yes
4.	12/04/2021	12:07:00 PM	Gregory Terrace (Northern Portal)	Construction Monitoring at Sensitive Places	External	Ground Stabilisation	Construction	62	80.6	52	75.5	Yes
5.	12/04/2021	12:28:00 PM	Gregory Terrace (Northern Portal)	Construction Monitoring at Sensitive Places	External	Ground Stabilisation	Construction	62	80	52	75.3	Yes

No.	Date	Time (AM / PM)	Location (Street Name) (Construction Precinct)	Purpose of Monitoring	Internal or External ^[3] Monitoring	Activity	Dominant Noise Source	Noise Goal LA10 ^[1]	Noise level LA10 ^[1]	Noise Goal LAeq ^[2]	Noise level LAeq ^[2]	Adhered to Project Requirements (Yes / No)
6.	13/04/2021	5:32:00 PM	Albert Street (Albert Street Precinct)	Construction Monitoring at Sensitive Places	Internal	Ground Stabilisation	Construction	55	66.8	45	63.8	Yes
7.	13/04/2021	5:51:00 PM	Albert Street (Albert Street Precinct)	Construction Monitoring at Sensitive Places	Internal	Ground Stabilisation and Crange	Construction and residential	55	44.9	45	61.9	Yes
8.	13/04/2021	8:33:00 PM	Albert Street (Albert Street Precinct)	Construction Monitoring at Sensitive Places	Internal	Ground Stabilisation and Crange	Construction	50	56.9	40	55.4	Yes
9.	13/04/2021	8:50:00 PM	Albert Street (Albert Street Precinct)	Construction Monitoring at Sensitive Places	Internal	Ground Stabilisation and Crange	Construction	50	42	40	40.8	Yes
10.	14/04/2021	8:49:00 PM	Roma Street (Roma Street Precinct)	Construction Monitoring at Sensitive Places	External	Utility Works	Construction	62	70	52	68.8	Yes
11.	14/04/2021	9:19:00 PM	Roma Street (Roma Street Precinct)	Construction Monitoring at Sensitive Places	External	Utility Works	Construction	62	71.9	52	69.2	Yes
12.	15/04/2021	2:15:00 PM	Roma Street (Roma Street Precinct)	Supreme Court	External	Controlled Blast	Construction	-	-	130 ^[4]	102.8	Yes

No.	Date	Time (AM / PM)	Location (Street Name) (Construction Precinct)	Purpose of Monitoring	Internal or External ^[3] Monitoring	Activity	Dominant Noise Source	Noise Goal LA10 ^[1]	Noise level LA10 ^[1]	Noise Goal LAeq ^[2]	Noise level LAeq ^[2]	Adhered to Project Requirements (Yes / No)
13.	16/04/2021	3:23:00 PM	Gregory Terrace (Northern Portal)	Construction Monitoring at Sensitive Places	External	Piling	Construction	62	71.8	52	69.2	Yes
14.	16/04/2021	3:38:00 PM	Gregory Terrace (Northern Portal)	Construction Monitoring at Sensitive Places	External	Piling and Ground Stabilisation	Construction	62	72.4	52	70	Yes
15.	19/04/2021	3:40:00 PM	Roma Street (Roma Street Precinct)	Supreme Court	External	Controlled Blast	Construction	-	-	130 ^[4]	102.8	Yes
16.	19/04/2021	7:20:00 PM	Peter Doherty Street (Boggo Road Precinct)	Construction Monitoring at Sensitive Places	External	Excavation, Crane and Spoil Haulage	Construction / Road and Rail Traffic	59	63.8	52	63.9	Yes
17.	19/04/2021	8:55:00 PM	Elliott Street (Woolloongabba Precinct)	Construction Monitoring at Sensitive Places	External	Excavation, Crane and Spoil Haulage	Construction / Road and Rail Traffic	49	61.4	42	59.4	Yes
18.	20/04/2021	8:34:00 AM	Gregory Terrace (Northern Portal)	Construction Monitoring at Sensitive Places	External	Piling, Ground Stabilisation and Spoil Haulage	Construction	62	75.4	52	75.2	Yes
19.	22/04/2021	9:14:00 AM	Roma Street (Roma Street Precinct)	Construction Monitoring at Sensitive Places	Internal	Tunnelling	Construction	55	49.3	45	49.3	Yes

No.	Date	Time (AM / PM)	Location (Street Name) (Construction Precinct)	Purpose of Monitoring	Internal or External ^[3] Monitoring	Activity	Dominant Noise Source	Noise Goal LA10 ^[1]	Noise level LA10 ^[1]	Noise Goal LAeq ^[2]	Noise level LAeq ^[2]	Adhered to Project Requirements (Yes / No)
20.	22/04/2021	3:45:00 PM	Roma Street (Roma Street Precinct)	Supreme Court	External	Controlled Blast	Construction	-	-	130 ^[4]	102.3	Yes
21.	27/04/2021	12:30:00 PM	Roma Street (Roma Street Precinct)	Supreme Court	External	Controlled Blast	Construction	-	-	130 ^[4]	103.1	Yes
22.	28/04/2021	8:53:00 AM	Albert Street (Albert Street Precinct)	Construction Monitoring at Sensitive Places	External	Excavation and Craneage	Construction	72	70.5	62	67.5	Yes
23.	28/04/2021	9:13:00 AM	Albert Street (Albert Street Precinct)	Construction Monitoring at Sensitive Places	External	Excavation and Craneage	Construction	67	67	57	64.5	Yes
24.	29/04/2021	9:15:00 AM	Roma Street (Roma Street Precinct)	Construction Monitoring at Sensitive Places	Internal	Tunnelling	Construction and Ambient noise	55	42.7	45	40.5	Yes
25.	30/04/2021	12:30:00 PM	Roma Street (Roma Street Precinct)	Construction Monitoring at Sensitive Places	External	Controlled Blast	Construction	-	-	130 ^[4]	114.8	Yes

- [1] Intermittent noise goal (LA10)

- [2] Continuous noise goal (LAeq)

- [3] In accordance with Imposed Condition 11, where internal noise levels were unable to be measured, external noise goals were developed by an acoustic specialist using the following standards: ISO 140-5:1998 Acoustics – Measurement of Sound Insulation in Buildings and of Building Elements, Part 5: Field measurements of airborne sound insulation of façade elements and facades and ISO 354:1985 Acoustics – Measurement of sound absorption in a reverberation room.

- [4] Blasting is measured in dB Linear Peak.

3.3 Air Quality

3.3.1 Deposited Dust Results

Air quality requirements (levels) are defined as goals within Imposed Condition 13. The goals are to be aimed for.

The Coordinator-General Change Report acknowledges instances exist that these goals may not be achieved.

Dust deposition monitoring was performed during April 2021. The dust deposition gauges result for the reporting period are detailed below, and all monitoring data adhered to project requirements.

Table 4: Air Quality Monitoring – Deposited Dust Data

Location	Project Wide Air Quality Goals ^[1]			Monitoring results (mg/m ² /day)	Comments
	Criterion	Air Quality Indicator	Goal (mg/m ² /day)		
Northern Portal	Nuisance	Deposited dust	120	20.00	Air quality monitoring was performed during the reporting period. All results adhered to project requirements.
Roma Street Precinct				6.67	
Albert Street Precinct (South)				7.67	
Albert Street Precinct (North)				60.00	
Woolloongabba Precinct (North)				9.68	
Woolloongabba Precinct (South)				16.13	
Boggo Road Precinct (North)				6.45	
Boggo Road Precinct (South)				9.68	
Southern Portal (South)				25.81	
Southern Portal (East)				16.13	

- [1] Project works must aim to achieve construction air quality goals. The Coordinator-General Change Report – Whole of Project Refinements 2019 acknowledges instances exist that these goals may not be achieved.

3.3.2 Particulates and Ambient Air Quality Results

Total Suspended Particulates (TSP) and particulate matter less than 10µm (PM10) monitoring was conducted during April 2021.

TSP and PM10 are monitored using portable air quality units and nearby Government air quality stations. Targeted monitoring of potential dust-generating activities is conducted by the mobile air quality units and was completed at Albert Street, Woolloongabba, Boggo Road and Northern Portal Precincts during April 2021.

Three (3) Government air quality stations near the Construction Precincts are also utilised.

Table 5: Targeted Air Quality Monitoring – Total Suspended Particles and PM10 Data

Date	TSP Project Goal	PM10 Project Goal	Woolloongabba		Albert		Boggo		Northern Portal	
			TSP	PM 10	TSP	PM 10	TSP	PM 10	TSP	PM 10
			(µg/m3/24 hr)							
01-Apr-21	80	50	4.74	4.70	11.00	10.94	3.33	3.32	5.42	5.35
02-Apr-21	80	50	4.45	4.43	10.15	10.13	3.36	3.35	6.28	6.22
03-Apr-21	80	50	5.93	5.91	14.28	14.26	3.94	3.93	7.91	7.86
04-Apr-21	80	50	8.65	8.62	18.12	18.08	5.64	5.61	12.61	12.58
05-Apr-21	80	50	3.28	3.27	6.98	6.98	2.29	2.29	4.30	4.29
06-Apr-21	80	50	2.97	2.95	15.94	15.93	1.61	1.61	5.15	5.14
07-Apr-21	80	50	3.85	3.82	18.11	18.07	4.51	4.49	5.36	5.32
08-Apr-21	80	50	3.59	3.53	14.29	14.22	1.62	1.6	2.57	2.56
09-Apr-21	80	50	4.95	4.89	9.36	9.27	3.84	3.82	4.48	4.46
10-Apr-21	80	50	10.25	10.13	16.32	16.13	8.08	8.05	10.27	10.21
11-Apr-21	80	50	6.06	5.94	9.30	9.20	5.51	5.47	5.90	5.83
12-Apr-21	80	50	3.62	3.60	15.85	15.67	4.61	4.53	5.28	5.20
13-Apr-21	80	50	4.58	4.56	22.38	22.28	5.61	5.59	5.80	5.77
14-Apr-21	80	50	5.89	5.87	12.74	12.63	6.33	6.32	8.99	8.97
15-Apr-21	80	50	6.14	6.13	11.40	11.33	8.73	8.71	10.63	10.59
16-Apr-21	80	50	9.66	9.65	26.09	25.00	10.09	10.06	11.93	11.90
17-Apr-21	80	50	11.90	11.88	24.08	23.99	11.8	11.78	13.85	13.82

Date	TSP	PM10	Woolloongabba		Albert		Boggo		Northern Portal	
	Project Goal	Project Goal	TSP	PM 10	TSP	PM 10	TSP	PM 10	TSP	PM 10
	(µg/m3/24 hr)									
18-Apr-21	80	50	2.22	2.22	15.63	15.60	1.98	1.95	2.70	2.68
19-Apr-21	80	50	5.65	5.62	4.63	4.63	4.9	4.88	5.99	5.97
20-Apr-21	80	50	6.78	6.75	15.57	15.52	6.29	6.27	12.17	12.15
21-Apr-21	80	50	9.71	9.63	11.59	11.48	8.63	8.59	9.17	9.07
22-Apr-21	80	50	7.27	7.20	10.36	10.19	6.01	5.98	7.57	7.50
23-Apr-21	80	50	6.62	6.58	11.25	11.15	4.55	4.51	5.91	5.84
24-Apr-21	80	50	10.67	10.64	13.73	13.65	13.45	13.43	14.75	14.71
25-Apr-21	80	50	13.59	13.58	15.91	15.86	15.66	15.65	20.73	20.70
26-Apr-21	80	50	13.28	13.26	19.07	19.03	15.09	15.07	16.05	16.02
27-Apr-21	80	50	8.93	8.85	17.60	17.52	8.26	8.25	10.22	10.20
28-Apr-21	80	50	8.91	8.86	19.21	19.15	6.98	6.97	10.32	10.29
29-Apr-21	80	50	6.34	6.29	14.51	14.41	4.45	4.45	8.73	8.71
30-Apr-21	80	50	7.83	7.79	16.47	16.40	4.92	4.91	6.90	6.88

CBGU also utilises three (3) Government air quality monitoring stations to monitor PM10 near to the project sites. The results during this reporting period were as follows:

- Brisbane CBD: PM₁₀ daily Maximum average: **29.8 µg/m3/24 hr** (<https://apps.des.qld.gov.au/air-quality/chart/?station=cdb¶meter=18&date=1/04/2021&timeframe=month>)
- South Brisbane: PM₁₀ daily Maximum average: **34.0 µg/m3/24 hr** (<https://apps.des.qld.gov.au/air-quality/chart/?station=sbr¶meter=18&date=1/04/2021&timeframe=month>)
- Woolloongabba: PM₁₀ daily Maximum average: **31.6 µg/m3/24 hr** (<https://apps.des.qld.gov.au/air-quality/chart/?station=woo¶meter=18&date=1/04/2021&timeframe=month>)

The graphical representation of the Government air quality data is presented in the below charts (refer to Figure 1-3).

Particle PM10 at Brisbane CBD, 1–30 April 2021 [about Particle PM10](#)

[Brisbane CBD station overview](#)

The guideline for Particle PM₁₀ is 120µg/m³ (1hr avg) and 50µg/m³ (24hr avg).

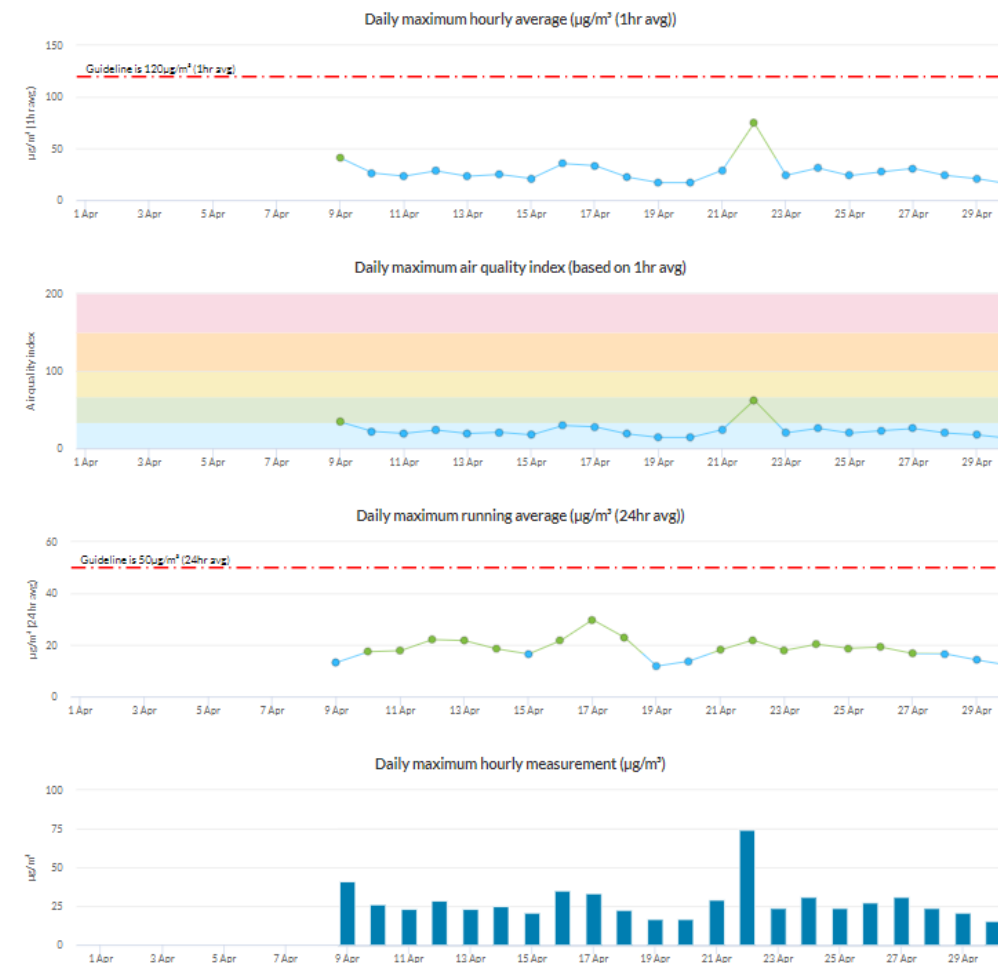


Figure 1: Brisbane CBD – DES Station - PM10 graph for April 2021 (reproduction from the DES website).

Particle PM₁₀ at South Brisbane, 1–30 April 2021 [about Particle PM₁₀](#)

[South Brisbane station overview](#)

The guideline for Particle PM₁₀ is 120µg/m³ (1hr avg) and 50µg/m³ (24hr avg).

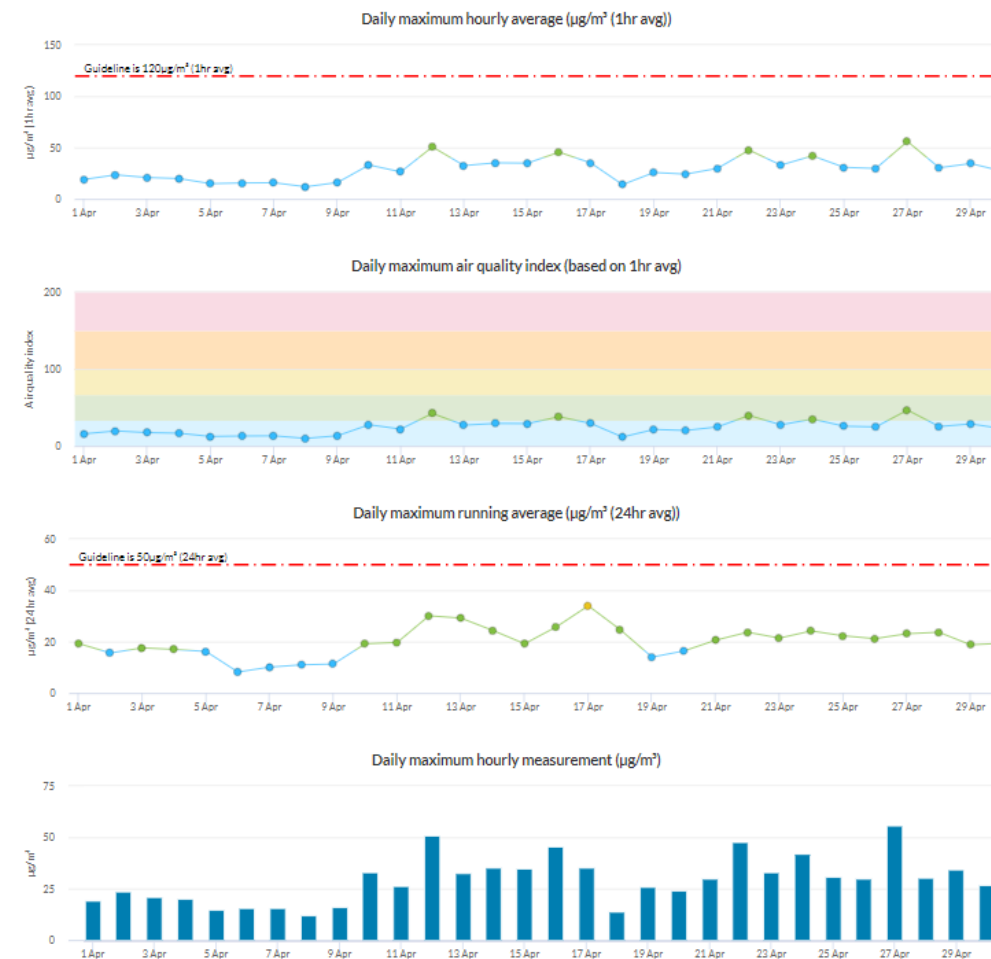


Figure 2: South Brisbane – DES Station - PM₁₀ graph for April 2021 (reproduction from the DES website accessed).

Particle PM₁₀ at Woolloongabba, 1–30 April 2021 [about Particle PM₁₀](#)

[Woolloongabba station overview](#)

The guideline for Particle PM₁₀ is 120µg/m³ (1hr avg) and 50µg/m³ (24hr avg).

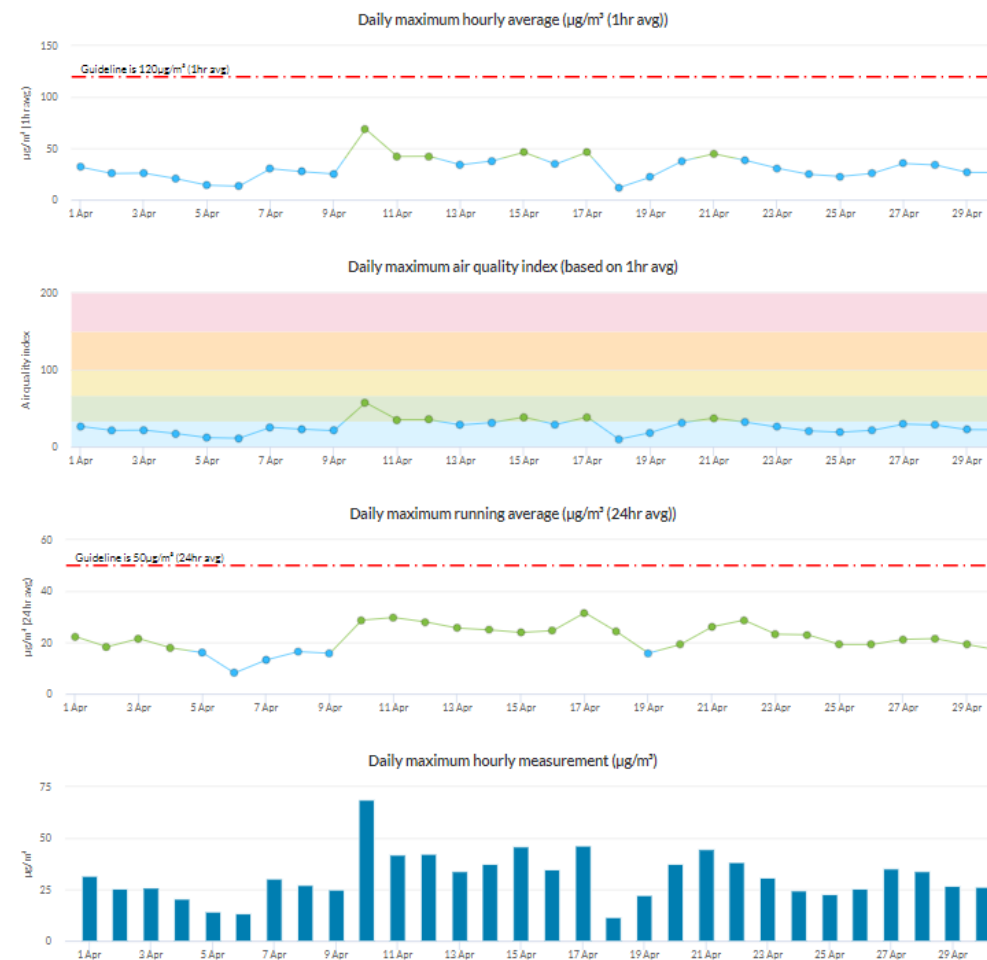


Figure 3: Woolloongabba – DES Station - PM₁₀ graph for April 2021 (reproduction from the DES website).

3.4 Water Quality – Discharge

CBGU undertook twelve (12) water quality monitoring events prior to the release (groundwater and surface water) from the site during April 2021.

3.4.1 Groundwater Discharge

Water quality monitoring data is provided in the table below.

Table 6: Groundwater Discharge – Water Quality Monitoring Data

Location	Date	Testing of Water Quality Objectives ^[1]											Adhered to Project Requirements (Yes / No)
		pH	Suspended solids (mg/L)	Turbidity (NTU)	Ammonia N (µg/L) ^[3]	Oxidised N (µg/L) ^[3]	Organic N (µg/L) ^[3]	Total nitrogen (µg/L) ^[3]	Total phosphorus (µg/L)	Filterable Reactive phosphorus (FRP) (µg/L)	Chlorophyll a (µg/L)	Dissolved oxygen (%) ^[2]	
Boggo Road	13/04/2021	7.32	<5	1.62	380.00	420.00	700.00	1500.00	40.00	<10	<1	121.03	Yes
Albert Street	14/04/2021	7.88	<5	0.41	1540.00	410.00	1000.00	2900.00	20.00	<10	<2	95.68	Yes
Roma Street	16/04/2021	7.58	<5	0.50	6220.00	5250.00	5100.00	16600.00 ^[4]	10.00	<10	<1	81.09	Yes
Woolloongabba	30/04/2021	7.50	-	2.0	At the completion of this report the Woolloongabba groundwater results had not been received. The results will be reported in next month's report.								Yes

- [1] The Project's discharge procedure is designed to minimise environmental impact and aim to achieve the water quality objectives. Water quality objectives are defined as goals within the Brisbane River estuary environmental values and water quality objectives document.
- [2] Adhered to project requirements regarding aiming to achieve the water quality objective. The dissolved oxygen samples were acquired prior to discharge from the site. Pumping of the water will have inadvertently aerated the water, thus influencing the dissolved oxygen level.
- [3] Adhered to project requirements regarding aiming to achieve the water quality objective. These samples identified results generally consistent with pre-construction conditions, and no external influences were introduced by construction activity.
- Note: testing of EPP (Water) Quality Objectives are analysed at a NATA accredited laboratory each month (results provided above). Field testing (turbidity, pH) is done regularly during ongoing discharge.
- [4] Total nitrogen levels adhered to project requirements in regard to aiming to achieve the water quality objective. The results are mostly below that of the receiving environment. They are also considered abnormal compared to results from previous months, and are influenced by external factors (e.g. high rainfall events, overloaded sewage treatment plants,) rather than related to construction activities.

3.4.2 Ponded/Surface Water Discharge

Surface water quality monitoring data is provided in the table below.

Table 7: Surface Water Discharge - Water Quality Monitoring Data

No.	Location	Date	Testing of Water Quality Objectives ^[1]		Adhered to Project Requirements (Yes / No)
			pH	Turbidity (NTU)	
1.	Woolloongabba	1/04/2021	7.50	2.00	Yes
2.	Boggo Road	6/04/2021	7.70	1.30	Yes
3.	Boggo Road	6/04/2021	7.70	11.36	Yes
4.	Boggo Road	6/04/2021	8.00	1.36	Yes
5.	Roma Street	8/04/2021	8.27	35.30	Yes
6.	Boggo Road	18/04/2021	7.20	29.10	Yes
7.	Roma Street	19/04/2021	8.25	40.60	Yes
8.	Southern Portal	20/04/2021	7.33	15.44	Yes

- [1] The Project's discharge procedure is designed to minimise environmental impact and aim to achieve the water quality objectives. All discharges were compliant with *Guidelines for Best Practice Erosion and Sediment Control (IECA, 2008)* and the *Department of Transport and Main Roads' Technical Standard MRTS 52 – Erosion and Sediment Control*.

3.5 Water Quality – Surface Water

During April 2021, CBGU JV undertook two (2) rounds of surface water sampling at five (5) locations (upstream and downstream).

Results from the below-monitoring locations reflect the condition of the broader catchment (not just the influence of the Project). Water quality generally appears good, and water discharge from the Project would not have had an impact on the catchment considering the results provided within section 3.4 above.

Table 8: Offsite Upstream & Downstream Water Quality Data

Location	Upstream / Downstream	Date	Purpose of Monitoring	Turbidity (NTU)	EC (µS/cm)	Dissolved oxygen (%)	pH
Roma Street	Upstream	7/04/2021	Post Rainfall	23	22900	77.46	7.8
Roma Street	Downstream	7/04/2021	Post Rainfall	20.9	20600	77.46	8.8
Northern Portal	Upstream	7/04/2021	Post Rainfall	17.28	369	55.67	8.1
Northern Portal	Downstream	7/04/2021	Post Rainfall	12.13	360	59.31	8.1
Northern Portal	Downstream	7/04/2021	Post Rainfall	116	435	79.88	7.8
Albert Street	Upstream	7/04/2021	Post Rainfall	23.6	29300	76.78	8.1
Albert Street	Downstream	7/04/2021	Post Rainfall	25.5	29200	77.96	7.8
Woolloongabba	Upstream	8/04/2021	Post Rainfall	26.3	26400	82.3	7.23
Woolloongabba	Downstream	8/04/2021	Post Rainfall	20.1	25900	84.72	7.24
Boggo Road ^[1]	Downstream	8/04/2021	Post Rainfall	5.21	962	68.99	7.3
Albert Street	Upstream	14/04/2021	Monthly	17.28	27600	74.84	7.3
Albert Street	Downstream	14/04/2021	Monthly	24.5	27500	78.23	7.1
Woolloongabba	Upstream	15/04/2021	Monthly	19.2	26900	88.35	7.5

Location	Upstream / Downstream	Date	Purpose of Monitoring	Turbidity (NTU)	EC (μS/cm)	Dissolved oxygen (%)	pH
Woolloongabba	Downstream	15/04/2021	Monthly	19.6	27000	89.56	7.5
Boggo Road ^[1]	Downstream	15/04/2021	Monthly	3.68	5420	61.73	7.3
Roma Street	Upstream	19/04/2021	Monthly	26.1	21700	73.83	7.3
Roma Street	Downstream	19/04/2021	Monthly	27.7	20800	72.62	7.3
Northern Portal	Upstream	19/04/2021	Monthly	0.1	540	88.35	7.0
Northern Portal	Downstream	19/04/2021	Monthly	6.32	532	96.82	7.0
Northern Portal	Downstream	19/04/2021	Monthly	0.1	415	91.98	7.0

- [1] Monitoring at the Boggo Rd site occurs at a pipe outlet at the beginning of the surface catchment. There is no upstream/downstream monitoring point as such. The pipe outlet receives water released from the site, as well as a broader stormwater catchment.

4 Non-Compliances

Details of non-compliances are provided in accordance with Imposed Condition 6(b)(ii).

A Non-Compliance Event is defined as project works that do not comply with the Imposed Conditions. Nil non-compliances occurred during the monitoring period.

Table 9: Non-Compliance Events

Event Title	Location, Date and time of the event	Date the Event was Formally Notified to CG/IEM	Conditions Affected	Date the Event Report Formally Sent to CG/IEM	Status of Event
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Nil for this reporting period

5 Complaints

Reporting of complaints is provided below in accordance with Imposed Condition 6(b)(iii).

During April 2021, thirty (30) complaints relating to the Project were received as detailed in Table 10 below. Twenty-one (21) complaints related to Albert St, and while this is a general increase to the previous month, it is reflective of the construction-phase rather than an indicator of non-compliance. For example, the majority of work completed outside standard hours is required to be conducted under an external approval requirement and after hours. A review of activities has confirmed compliance with project requirements.

Table 10: Summary of Complaints

No.	Date	Location	Description of Issue	Responses	Status of Event
1.	5 April 2021	Boggo Road Precinct	Traffic Management	A stakeholder contacted the Project regarding property condition. CBGU reviewed the circumstances and the complaint was closed.	Closed
2.	6 April 2021	Albert Street Precinct	Noise	A stakeholder contacted the Project regarding noise from the Albert Street precinct. CBGU provided the stakeholder with an overview of the works occurring and their duration at the Albert Street precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance.	Closed

No.	Date	Location	Description of Issue	Responses	Status of Event
				CBGU also reviewed the circumstances and monitoring confirmed works adhered to project noise requirements and the works undertaken were consistent with the community notification.	
3.	7 April 2021	Albert Street Precinct	Noise	<p>A stakeholder contacted the Project regarding noise from the Albert Street precinct.</p> <p>CBGU provided the stakeholder with an overview of the works occurring and their duration at the Albert Street precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance.</p> <p>CBGU also reviewed the circumstances and monitoring confirmed works adhered to project noise requirements and the works undertaken were consistent with the community notification.</p>	Closed
4.	8 April 2021	Roma Street Precinct	Property Condition	<p>A stakeholder contacted the Project regarding property condition.</p> <p>CBGU reviewed the circumstances and monitoring confirmed works adhered to project requirements.</p>	Closed
5.	8 April 2021	Albert Street Precinct	Noise	<p>A stakeholder contacted the Project regarding noise from the Albert Street precinct.</p> <p>CBGU provided the stakeholder with an overview of the works occurring and their duration at the Albert Street precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance.</p> <p>CBGU also reviewed the circumstances and monitoring confirmed works adhered to project noise requirements and the works undertaken were consistent with the community notification.</p>	Closed
6.	8 April 2021	Albert Street Precinct	Noise	<p>A stakeholder contacted the Project regarding noise from the Albert Street precinct.</p> <p>CBGU provided the stakeholder with an overview of the works occurring and their duration at the Albert Street precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance.</p> <p>CBGU also reviewed the circumstances and monitoring confirmed works adhered to project noise requirements and the works undertaken were consistent with the community notification.</p>	Closed
7.	8 April 2021	Albert Street Precinct	Noise	A stakeholder contacted the Project regarding noise from the Albert Street precinct.	Closed

No.	Date	Location	Description of Issue	Responses	Status of Event
				<p>CBGU provided the stakeholder with an overview of the works occurring and their duration at the Albert Street precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance.</p> <p>CBGU also reviewed the circumstances and monitoring confirmed works adhered to project noise requirements and the works undertaken were consistent with the community notification.</p>	
8.	8 April 2021	Albert Street Precinct	Noise	<p>A stakeholder contacted the Project regarding noise from the Albert Street precinct.</p> <p>CBGU provided the stakeholder with an overview of the works occurring and their duration at the Albert Street precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance.</p> <p>CBGU also reviewed the circumstances and monitoring confirmed works adhered to project noise requirements and the works undertaken were consistent with the community notification.</p>	Closed
9.	10 April 2021	Albert Street Precinct	Traffic Management	<p>A stakeholder contacted the Project regarding access.</p> <p>CBGU reviewed the circumstances and maintained site awareness through toolbox talks.</p>	Closed
10.	12 April 2021	Boggo Road Precinct	Noise	<p>A stakeholder contacted the Project regarding noise from the Boggo Road precinct.</p> <p>CBGU provided the stakeholder with an overview of the works occurring and their duration at the Boggo Road precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance.</p> <p>CBGU also reviewed the circumstances and monitoring confirmed works adhered to project noise requirements and the works undertaken were consistent with the community notification.</p>	Closed
11.	12 April 2021	Albert Street Precinct	Air Quality	<p>A stakeholder contacted the Project regarding air quality.</p> <p>CBGU also reviewed the circumstances and monitoring confirmed works adhered to project air quality requirements.</p>	Closed
12.	12 April 2021	Albert Street Precinct	Noise	<p>A stakeholder contacted the Project regarding noise from the Albert Street precinct.</p>	Closed

No.	Date	Location	Description of Issue	Responses	Status of Event
				<p>CBGU provided the stakeholder with an overview of the works occurring and their duration at the Albert Street precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance.</p> <p>CBGU also reviewed the circumstances and monitoring confirmed works adhered to project noise requirements and the works undertaken were consistent with the community notification.</p>	
13.	13 April 2021	Woolloongabba Tunnel alignment	Noise	<p>A stakeholder contacted the Project regarding noise from the Woolloongabba Tunnel alignment.</p> <p>CBGU provided the stakeholder with an overview of the works occurring and their duration. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance.</p> <p>CBGU also reviewed the circumstances and monitoring confirmed works adhered to project noise requirements and the works undertaken were consistent with the community notification.</p>	Closed
14.	14 April 2021	Albert Street Precinct	Noise	<p>A stakeholder contacted the Project regarding noise from the Albert Street precinct.</p> <p>CBGU provided the stakeholder with an overview of the works occurring and their duration at the Albert Street precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance.</p> <p>CBGU also reviewed the circumstances and monitoring confirmed works adhered to project noise requirements and the works undertaken were consistent with the community notification.</p>	Closed
15.	14 April 2021	Albert Street Precinct	Noise	<p>A stakeholder contacted the Project regarding noise from the Albert Street precinct.</p> <p>CBGU provided the stakeholder with an overview of the works occurring and their duration at the Albert Street precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance.</p> <p>CBGU also reviewed the circumstances and monitoring confirmed works adhered to project noise requirements and the works undertaken were consistent with the community notification.</p>	Closed
16.	17 April 2021	Albert Street Precinct	Construction Hours	<p>A stakeholder contacted the Project regarding construction hours from the Albert Street precinct.</p>	Closed

No.	Date	Location	Description of Issue	Responses	Status of Event
				CBGU provided the stakeholder with an overview of the works occurring and their duration at the Albert Street precinct. CBGU confirmed works were occurring during approved hours.	
17.	17 April 2021	Albert Street Precinct	Noise	<p>A stakeholder contacted the Project regarding noise from the Albert Street precinct.</p> <p>CBGU provided the stakeholder with an overview of the works occurring and their duration at the Albert Street precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance.</p> <p>CBGU also reviewed the circumstances and monitoring confirmed works adhered to project noise requirements and the works undertaken were consistent with the community notification.</p>	Closed
18.	20 April 2021	Albert Street Precinct	Noise	<p>A stakeholder contacted the Project regarding noise from the Albert Street precinct.</p> <p>CBGU provided the stakeholder with an overview of the works occurring and their duration at the Albert Street precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance.</p> <p>CBGU also reviewed the circumstances and monitoring confirmed works adhered to project noise requirements and the works undertaken were consistent with the community notification.</p>	Closed
19.	20 April 2021	Albert Street Precinct	Noise	<p>A stakeholder contacted the Project regarding noise from the Albert Street precinct.</p> <p>CBGU provided the stakeholder with an overview of the works occurring and their duration at the Albert Street precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance.</p> <p>CBGU also reviewed the circumstances and monitoring confirmed works adhered to project noise requirements and the works undertaken were consistent with the community notification.</p>	Closed
20.	20 April 2021	Albert Street Precinct	Noise	<p>A stakeholder contacted the Project regarding noise from the Albert Street precinct.</p> <p>CBGU provided the stakeholder with an overview of the works occurring and their duration at the Albert Street precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance.</p>	Closed

No.	Date	Location	Description of Issue	Responses	Status of Event
				CBGU also reviewed the circumstances and monitoring confirmed works adhered to project noise requirements and the works undertaken were consistent with the community notification.	
21.	20 April 2021	Albert Street Precinct	Noise	<p>A stakeholder contacted the Project regarding noise from the Albert Street precinct.</p> <p>CBGU provided the stakeholder with an overview of the works occurring and their duration at the Albert Street precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance.</p> <p>CBGU also reviewed the circumstances and monitoring confirmed works adhered to project noise requirements and the works undertaken were consistent with the community notification.</p>	Closed
22.	20 April 2021	Albert Street Precinct	Noise	<p>A stakeholder contacted the Project regarding noise from the Albert Street precinct.</p> <p>CBGU provided the stakeholder with an overview of the works occurring and their duration at the Albert Street precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance.</p> <p>CBGU also reviewed the circumstances and monitoring confirmed works adhered to project noise requirements and the works undertaken were consistent with the community notification.</p>	Closed
23.	20 April 2021	Albert Street Precinct	Noise	<p>A stakeholder contacted the Project regarding noise from the Albert Street precinct.</p> <p>CBGU provided the stakeholder with an overview of the works occurring and their duration at the Albert Street precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance.</p> <p>CBGU also reviewed the circumstances and monitoring confirmed works adhered to project noise requirements and the works undertaken were consistent with the community notification.</p>	Closed
24.	20 April 2021	Albert Street Precinct	Noise	<p>A stakeholder contacted the Project regarding noise from the Albert Street precinct.</p> <p>CBGU provided the stakeholder with an overview of the works occurring and their duration at the Albert Street precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance.</p>	Closed

No.	Date	Location	Description of Issue	Responses	Status of Event
				CBGU also reviewed the circumstances and monitoring confirmed works adhered to project noise requirements and the works undertaken were consistent with the community notification.	
25.	22 April 2021	Woollongabba Tunnel Alignment	Vibration	<p>A stakeholder contacted the Project regarding vibration from the Woollongabba Tunnel alignment.</p> <p>CBGU provided the stakeholder with an overview of the works occurring and their duration. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance.</p> <p>CBGU also reviewed the circumstances and monitoring confirmed works adhered to project vibration requirements and the works undertaken were consistent with the community notification.</p>	Closed
26.	22 April 2021	Woollongabba Tunnel Alignment	Vibration	<p>A stakeholder contacted the Project regarding vibration from the Woollongabba Tunnel alignment.</p> <p>CBGU provided the stakeholder with an overview of the works occurring and their duration. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance.</p> <p>CBGU also reviewed the circumstances and monitoring confirmed works adhered to project vibration requirements and the works undertaken were consistent with the community notification.</p>	Closed
27.	22 April 2021	Woollongabba Tunnel Alignment	Vibration	<p>A stakeholder contacted the Project regarding vibration from the Woollongabba Tunnel alignment.</p> <p>CBGU provided the stakeholder with an overview of the works occurring and their duration. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance.</p> <p>CBGU also reviewed the circumstances and monitoring confirmed works adhered to project vibration requirements and the works undertaken were consistent with the community notification.</p>	Closed
28.	23 April 2021	Boggo Road Precinct	Noise	A stakeholder contacted the Project regarding noise from the Boggo Road precinct.	Closed

No.	Date	Location	Description of Issue	Responses	Status of Event
				<p>CBGU provided the stakeholder with an overview of the works occurring and their duration at the Boggo Road precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance.</p> <p>CBGU also reviewed the circumstances and monitoring confirmed works adhered to project noise requirements and the works undertaken were consistent with the community notification.</p>	
29.	24 April 2021	Albert Street Precinct	Noise	<p>A stakeholder contacted the Project regarding noise from the Albert Street precinct. CBGU provided the stakeholder with an overview of the works occurring and their duration at the Albert Street precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance.</p> <p>CBGU also reviewed the circumstances and monitoring confirmed works adhered to project noise requirements and the works undertaken were consistent with the community notification.</p>	Closed
30.	29 April 2021	Woollongabba Tunnel Alignment	Vibration	<p>A stakeholder contacted the Project regarding vibration from the Woollongabba Tunnel alignment.</p> <p>CBGU provided the stakeholder with an overview of the works occurring and their duration. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance.</p> <p>CBGU also reviewed the circumstances and monitoring confirmed works adhered to project vibration requirements and the works undertaken were consistent with the community notification.</p>	Closed