

The background of the entire page is a dark blue map. It shows a network of streets and a prominent river that winds through the center of the map. The map is rendered in a lighter shade of blue, creating a subtle, textured background for the text.

Cross River Rail Project

Monthly Environmental Report

April 2023

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Executive Summary

This Monthly Environmental Report (MER) has been produced for Project Works undertaken on site for April 2023 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. 13 (March 2022)*. Plus, 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 CBUG 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 for 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 13 covering full scope of RIS works is effective from 14 March 2022. TSD – CEMP Revision 11 covering full scope of TSD works is effective from 24 November 2022.
5.	Compliance and Incident management – Non-compliance events, notifications and reporting.	Yes	No Non-Compliance Events (NCEs) occurred in April 2023.

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, has 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 met project noise requirements at Sensitive Places. RIS – Noise monitoring was undertaken to validate predicted noise modelling. Noise monitoring confirmed project requirements were met. Refer to Appendix A (Section 3.1.6). TSD – Noise monitoring was undertaken to validate predicted noise modelling. Noise monitoring confirmed project requirements were met. Refer to Appendix B (Table 3 and Section 3.2).
	Vibration – Project Works must aim to achieve vibration goals for cosmetic damage, human comfort and sensitive building contents.	Yes	Vibration monitoring met project vibration requirements at Sensitive Places. RIS – Vibration monitoring occurred at RNA. The results met the requirements of the endorsed CEMP. Refer to Appendix A (Table 5 and Section 3.1.3). TSD – Vibration monitoring occurred at Northern Portal and Woolloongabba. The results met the requirements of the endorsed CEMP. Refer to Appendix B (Section 3.1)

Imposed Condition	Requirement Summary	Compliance Met (Yes/No/NA)	Comment
12.	Property damage – relating to ground movement.	Yes	<p>RIS – 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 Dutton Park to Salisbury stations.</p> <p>TSD – Vibration modelling has been prepared and is ongoing. Where required, building condition survey reports are completed for heritage and residential buildings. No enquiries relating to property damage were received during April 2023.</p>
13.	Air quality – Works must aim to achieve air quality goals for human health and nuisance.	Yes	<p>Air quality monitoring met Project air quality project requirements.</p> <p>RIS – Contractor confirmed they continued to meet the requirements under Condition 13 and the OEMP. Refer to Appendix A (Tables 7, 8 and 9 and Section 3.1.8, plus Figures 1, 2, 3 and 4).</p> <p>TSD – Refer to Appendix B (Tables 4.2 and 5 plus Section 3.3).</p>
14.	Traffic and transport – Works must minimise adverse impacts on road safety and traffic flow.	Yes	Traffic Management Plans are covered in the CEMPs. 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 during April.</p> <p>Post-rainfall monitoring occurred at Moolabin Creek and Rocky Water Holes Creek. See Appendix A (Section 3.1.13 and Table 10) for further details.</p> <p>TSD – Active discharge of groundwater occurred from Roma Street, Albert Street, Woolloongabba and Boggo Road worksites. Monitoring results of groundwater quality prior to discharge is consistent with the pre-construction water quality levels.</p> <p>Surface water discharges occurred at the Northern Portal worksite on 23 occasions. The monitoring results demonstrated surface water discharges met project water</p>

			<p>quality discharge criteria.</p> <p>Routine monitoring occurred in receiving waters of the Northern Portal, Roma Street, Albert Street, Woolloongabba, Southern Portal and Boggo Road sites. See Appendix B (Section 3.5 and Table 8) for further details.</p> <p>Refer to Appendix B (Table 6) for ground water monitoring results.</p> <p>Refer to Appendix B (Tables 7 and 8) for surface water monitoring results.</p>
16.	<p>Water resources – Evaluate potential impact, plan works, implement controls and monitor inflow of groundwater associated with drawdown.</p>	Yes	<p>RIS – There is 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> <p>TSD – Inflow of groundwater into the worksites is being continuously monitored to validate the predictive modelling.</p>
17.	<p>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.</p>	Yes	<p>Contractors continue to consider this condition in their site planning and design.</p>
18.	<p>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.</p>	Yes	<p>Site specific ESC plans for all active work sites have been reviewed by the EM and implemented on site.</p>
19.	<p>Acid sulfate soils – managed as per the Queensland Acid Sulfate Soil Technical Manual.</p>	Yes	<p>Acid Sulfate Soil Management Plans have been prepared and implemented for all active worksites.</p>

20.	Landscape and open space – general requirement to minimise impacts on landscapes and open space values and specific requirements around Victoria Park.	Yes	The construction of a temporary access road through Victoria Park was undertaken under a Heritage Exemption Certificate approved by the Department of Environment and Science (DES) on 24 June 2021. Consideration has been taken to minimise loss of trees and the area of park impacted during these temporary works.
21.	Worksite rehabilitation – worksites rehabilitated as soon as practicable upon completion of works or commissioning, and in consultation with Brisbane City Council.	N/A	N/A

Non-Compliance Events

There were no NCEs raised in April 2023.

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, several Requests for Project Change (RfPC) submissions have been evaluated by the Coordinator-General. RfPC 13 was endorsed in March 2022 by the Coordinator-General.

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.

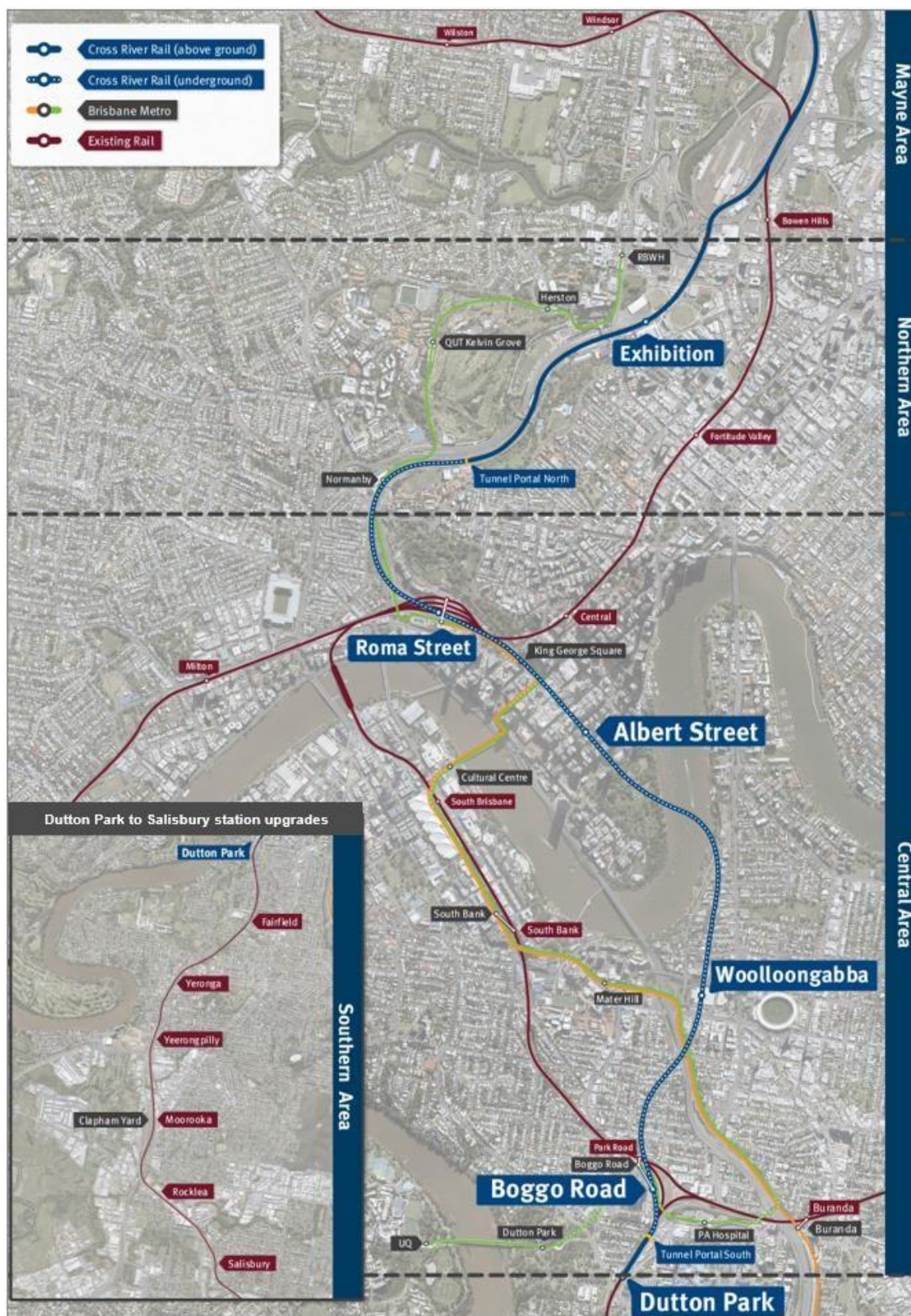
The two main delivery packages which require reporting under the Coordinator-General's imposed conditions are:

- 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 areas and delivery packages are shown in the figure below.



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, is 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 2023:

Area	Project Works
Mayne Area	<p>Mayne Yard North –</p> <ul style="list-style-type: none">• BR08 (Breakfast Creek Bridge) temporary support works for Pier 3 and 4 completed, piling of Pier 3 complete and centre span girder lifts; and• QR requested modifications in Mayne Yard North continuing – currently focusing on shunters shed redesign. <p>Mayne Yard East / West –</p> <ul style="list-style-type: none">• Mayne Yard East entry road removals and demolition of redundant facilities commenced;• BR11/13 (vehicle access tripod bridge over future CRR lines) road barrier installation continues;• BR12 (pedestrian bridge from Bowen Hills Station to MY-West) truss structure installation completed during EXT-18 SCAS;• Civil scope for Shunt Road and vehicle access road continuing including drainage, CSR and earthworks; and• Sewer underbore at Campbell Street completed.
Northern Area	<p>RNA/ Northern Corridor –</p> <ul style="list-style-type: none">• RIS-N-9C switch into Stage 2 alignment over new BR43 viaduct which allows Station to commence;• Demolition of redundant QR embankment, underpath and bridge structure has commenced;• Excavation work commenced for new station and BR44 viaduct• Station and Shared path service install ongoing;• Clean up following RIS-N-9C switch;• TSD moving Crib facilities up to Vic Park compound area; and• Site Investigation & works planning around Northern Portal ongoing <p>Energex works within Vic Park feeder station continuing.</p> <p>Northern Portal –</p> <ul style="list-style-type: none">• Site demob and removal of temporary support complete;• Watermain installation completed, including removal of redundant services;• Demolition of gantry slab and structure complete; and

	<ul style="list-style-type: none"> Handback to RIS of area behind the portal headwall, including above cut and cover.
Central Area	<p>Roma Street –</p> <ul style="list-style-type: none"> Main Station Building Entry services installation progressing B4, B3 and RA3; Main Station L1 slab 75% complete, vertical to L2 underway; QR Platform 2 canopy steel complete, roofing ongoing, targeting energised zone; and M&E building works to Level 3.5 continuing, services installation and fit outs progressing WSB basement levels including RA6. B02 materials handling penetration filled. <p>Albert Street –</p> <ul style="list-style-type: none"> Lot 1 – B10 basement slab, internal stairwells and lands struck completed, B10 to B9 external perimeter and internal load bearing walls and columns complete and B9 suspended slabs and level slipform complete; Lot 2 – Adit AA6 and AA2 arch lining complete, back of house North B4 walls and slab complete, back of house South B4 walls and slab complete; Lot 3 – B4 base slab complete, SW103 to SW107 walls complete and a range of other pours complete. <p>Woolloongabba –</p> <ul style="list-style-type: none"> Main Station Box external wall continues to SW5, SW3 and SW6; M&E Services - HV transformer SAT test undertaken; M&E Services to Service Building continue across all levels of the building; Damper install top B7 & B9 underway; M&E Services nearing completion to first two RIS Rooms in South Cavern North Cavern RIS rooms progressing well; PSD trial install underway in Northern Cavern; OME Framing installed to South Cavern; Ceiling and Partitions in progress on B9, B7, B4, B3, B2 and B1; and Decline backfill underway. <p>Tunnel fitout –</p> <ul style="list-style-type: none"> Bracket installation underway; Ongoing walkway construction; Completion of rail installation; and Cable trays and bracket installation in cross passages. <p>Boggo Road –</p> <ul style="list-style-type: none"> Concrete to in-situ structure at 71% complete; Reinforcement to in-situ structure 75% complete; Mezzanine precast trusses - 110 of 222 installed; Precast platform culverts and planks – 368 of 451 installed; and Super T's – 23 or 39 installed. <p>Southern Portal –</p> <ul style="list-style-type: none"> Internal tunnel roof completed in MC01 (excluding roof transition); Completed MC02 final base slab at bottom of decline; Princess Alexandra Hospital (PAH) Bridge girders 3, 4 and 5 installed during Easter SCAS; Cable stays installed and yet to be tensioned; Liner wall FRP works ongoing; and Services works commenced on final sewer manhole and property connection on Railway Terrace.
Southern Area	<p>Southern / Dutton Park –</p> <ul style="list-style-type: none"> Closure and demolition of Platform 2 (inbound platform); UP Sub – Formation rebuild; Construction of Platform 01 Precast Walls including lower level services installation; Relocation of 2 existing turnouts; Installation of 2 new turnouts;

- Moving the up sub closer to Future Dutton Park Platform 1;
- Continue CSR network construction; and
- Drainage scope installation.

Fairfield station –

- Continue with station building fit-out works;
- Mildmay Street gravity wall Stage 2 complete;
- Overpass flooring (permanent) completed;
- Remove existing temp stair 1 scaffold;
- Complete new Stair 1;
- Complete permanent Equity St & Mildmay St Entrances;
- Implement Stage 2C temporary stage (new stair, entrance, and overpass arrangement);
- Lift 2 & Lift 3 – lift construction ongoing;
- Offsite manufacture of electrical boards (DB's, MSB's, MDB's etc);
- Installation of Platform 03 tactiles & coping stones; and
- Installation of PL2 / PL3 'Klic' lighting to the soffit.

Yeronga station –

- Yeronga Station – final completion and certification of the station remains ongoing.

Clapham Yard –

- BR93 (Moolabin Creek Track Bridge) Stage 1 complete (except walkways and Northern relieving slab);
- BR94 (Chale Street Bridge) Southern Span 2, FRP scope and RSS wall RW640 completed with deck pours and barrier installation continuing;
- HV relocation to Underground (along Chale Street) complete; and
- Landscaping of available areas completed.

Rocklea station –

- Continued inground services throughout platform areas – PL1 & PL2/3;
- Continue platform concrete slab pours for the platform slabs;
- Continued FRP work for structural foundations for the canopy foundations;
- Commence FRP works for the building foundation; and
- Completion of structural work structural steel package – Overpass Columns, now ready for coating.

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.

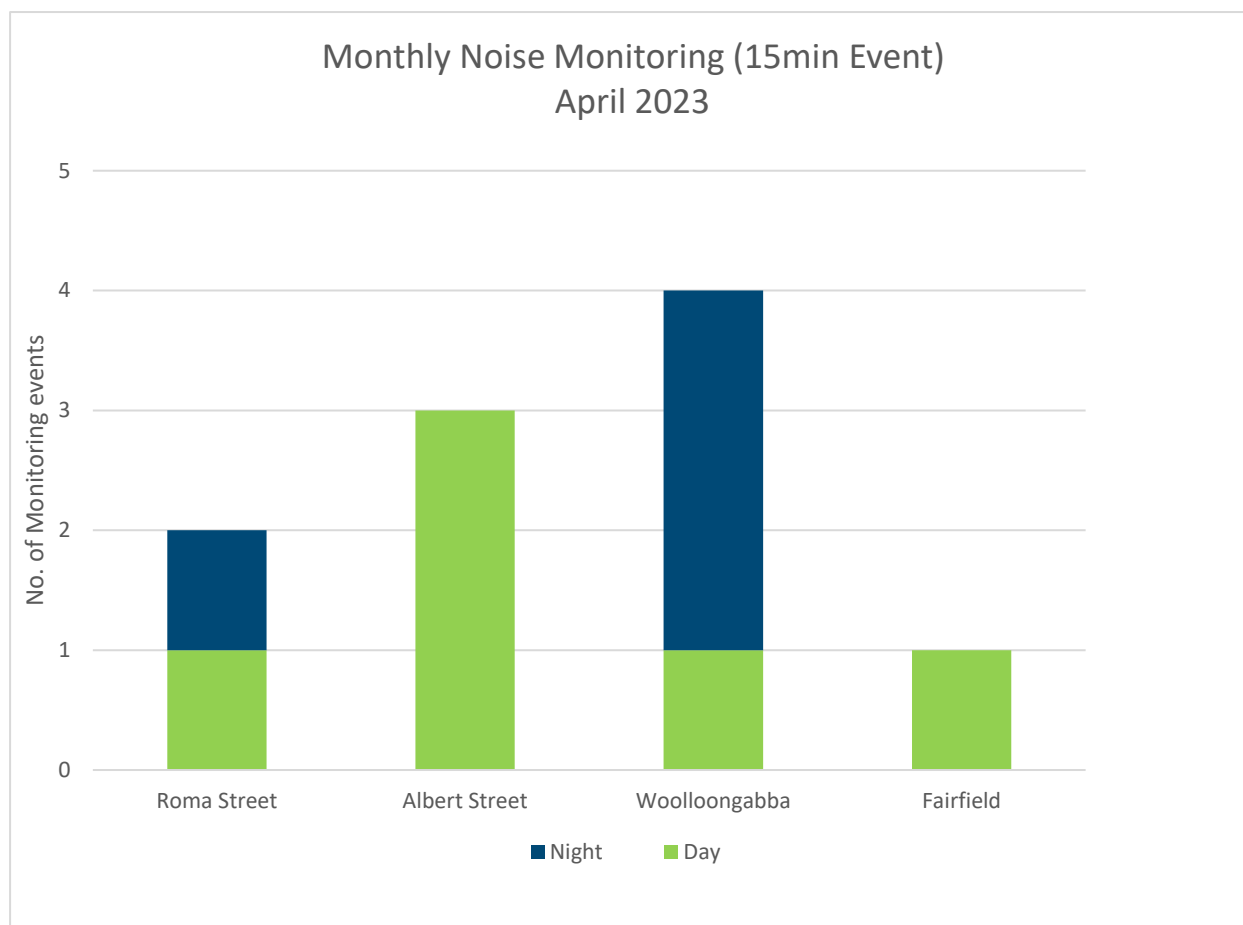
For Project Works where potential noise impacts are modelled to be above the noise goal but below the noise goal plus 20dBA, this work is authorised where the endorsed CEMP and associated Noise and Vibration Management Plan is being implemented, including communicating construction activities to potential 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 assess external monitoring and determine compliance with the project's noise requirements, the project applies recommended façade attenuation corrections, which considers receiver property type.

In the Central Area, noise monitoring was undertaken for both model verification and construction monitoring at sensitive places for locations in proximity to Roma Street, Albert Street and Woolloongabba. The TSD contractors reported that the project noise requirements have been met during this reporting month. Monitoring results for the Central Area are detailed in **Appendix B** (Table 3).

In the Southern Area, noise monitoring was conducted for construction monitoring at a sensitive place near the Fairfield Station worksite. The noise levels were predicted to exceed the upper limit noise goal triggering Directly Affected Persons (DAPs) and the monitoring validated those predicted levels. The contractor confirmed that advanced consultation was undertaken with DAPs and mitigation measures were developed on a case by case basis. The RIS contractors reported that the project noise requirements have been met and the works were compliant with the Imposed Condition 11(c). Monitoring results for the Southern Area are detailed in **Appendix A** (Section 3.1.6).

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



2.2.2. Vibration

In the Northern Area, vibration monitoring continued at the State heritage listed John MacDonald Stand inside a storeroom. The monitor was approximately 93m away from the 5T hydraulic hammer which was being used for demolition of the stations existing platform. The RIS contractor reported that the vibration requirements have been met and the monitoring results are as detailed in Appendix A (Table 5).

Vibration monitoring also occurred in the Northern Area at the Brisbane Girls Grammar School (BGGs) due to demolition works at the Northern Portal site. The TSD contractor reported that the vibration requirements have been met and the monitoring results are as detailed in Appendix B (Table 3).

In the Central Area, vibration monitoring was conducted at the Woolloongabba site due to utilities works occurring in close proximity to a heritage structure on Main Street. All vibration monitoring adhered to the project requirements and is detailed in Appendix B (Table 3).

2.2.3. Air Quality

2.2.3.1. Dust Deposition

Dust deposition monitoring was conducted at Mayne, Northern, Central and Southern Areas. Results met the project air quality goal¹ for all active worksites.

It is noted that at the completion of the April MER, the Boggo Road and Southern Portal monitoring results were not reported due to not having received the results from the laboratory. The TSD contractor will include these results in the May MER.

A summary of the dust deposition results for the month are in the table below.

Air Quality – Dust Deposition Monitoring			
Area	Worksite	Monitoring Location	Comments
Mayne Area	Mayne Yard	Mayne Yard East	- Results met air quality goal
Northern Area	RNA / Exhibition	RNA Showgrounds	- Results met air quality goal
	Northern Portal	Northern Portal (near Brisbane Girls Grammar School)	- Results met air quality goal
Central Area	Albert Street	Mary Street	- Results met air quality goal
		Elizabeth Street	- Results met air quality goal
	Boggo Road	Quarry Street (north of the site)	- Awaiting laboratory results at the completion of the report. Results to be included in next month's Report
		Peter Doherty Street/Leukemia Foundation	- Awaiting laboratory results at the completion of the report. Results to be included in next month's Report
	Southern Portal	Dutton Park Station	- Awaiting laboratory results at the completion of the report. Results to be included in next month's Report
		PA Hospital - Central Energy Unit along Kent Street	- Awaiting laboratory results at the completion of the report. Results to be included in next month's Report
	Roma Street	Roma Street Station	- Results met air quality goal
	Woolloongabba	Russian Orthodox Cathedral	- Results met air quality goal

		Woolloongabba Busway	- Results met air quality goal
Southern Area	Dutton Park	Dutton Park	- Results met air quality goal
	Clapham Yard	Clapham Yard	- Results met air quality goal

¹ CG air quality goal for dust deposition - 120µg/m² (over an averaging period of 30 days).

2.2.3.2. Particulate Matter and Total Suspended Particulates

Monitoring for particulate matter (PM10) and total suspended particulates (TSP) was conducted at Northern, Central and Southern Area worksites. Results met the project goals at all active worksites.

The hire Dust Monitor Pro (DMP) that was reinstalled at Clapham Yard on 27 March 2023 continued to have charging and battery reliability issues throughout April. These reliability issues resulted in data that was recorded not meeting the applicable monitoring standards and was therefore invalid. Issue rectification and repairs on this device is underway. Of the data recorded, only data captured between 13-18 April 2023 has been determined to be valid and below the air quality goals.

UNITY has confirmed that a long-term rectification strategy is underway and encompasses the service and repair of the previously in place UNITY Clapham Yard DMP. Plus, additional air quality modelling to determine if monitoring of particulates is required for current and future works. A new replacement monitor has also been procured that is anticipated to be delivered and commissioned early in Quarter 3 2023.

Due to the lack of valid air quality data for PM10 and TSP, UNITY have undertaken an investigation to confirm the scope of works at Clapham Yard met the Project requirements. This has included supplementary information validated by the Certified Air Quality Professional (CAQP). The investigation considered a range of factors including current works on site and staging, implemented mitigation measures, meteorological conditions and if there were any air quality related complaints. The investigation confirmed that despite the absence of particulate data for most of the month, UNITY's scope of works and implementation of their Air Quality Management Plan has met the project outcomes set out by the Imposed Conditions.

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

Air Quality – PM₁₀ / TSP Monitoring			
Area	Worksite	Monitoring Location	Comments
Mayne Area	Mayne Yard	Mayne Yard North	- Monitoring not required as per Project's CAQP advice
	Mayne Yard	Mayne Yard East	- Results met air quality goals
Northern Area	RNA / Exhibition	RNA showgrounds	- Results met air quality goals
	Northern Portal	Brisbane Girls Grammar School	- Results met air quality goals
Central Area	Albert St	iStay River City and Capri (Corner of Mary Street and Albert Street)	- Results met air quality goals
	Boggo Rd / Southern Portal	North-east of Boggo Road worksite	- Results met air quality goals
	Woolloongabba	Place Park, Woolloongabba	- Results met air quality goals

Southern Area	Clapham Yard	Clapham Yard	<ul style="list-style-type: none"> - Results met air quality goals - Power supply issues prevented data from being recorded between 1-12 and 19-31 April 2023.
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2.2.4. Water Quality

Water quality monitoring and reporting was undertaken in accordance with the contractors CEMP and Water Quality Management Plans.

2.2.4.1. Surface Water

During April, active surface water discharges occurred in the Northern Area. Post-rainfall water quality monitoring occurred in the receiving waters in the Southern Area.

In the Northern Area, water quality monitoring was triggered on twenty-three occasions from the Northern Portal worksite as water used for construction activities and stormwater was treated and actively discharged to the stormwater network. The TSD contractors confirmed the discharge criteria was met on all occasions. See **Appendix B** (Table 7) for further details.

Post-rainfall monitoring was triggered in the receiving waters of Clapham Yard due to a rainfall event on 8 April that exceeded the trigger to monitor. Where in situ monitoring was carried out and downstream locations' water quality data exhibited >10% increase in turbidity (NTU), further investigation was undertaken to ascertain whether this change in water quality is related to released water from the Project Works. The assessment found that the storm event size was above the design criteria for the controls on site and the site-specific erosion and sedimental control measures were appropriately implemented as per the site-specific Erosion and Sedimental Control Plan. Therefore, compliance with Imposed Conditions 15 and 18 were met. See **Appendix A** (Section 3.1.13, Table 10).

Routine surface water quality monitoring was undertaken in the receiving waters of all TSD worksites in accordance with the Water Quality Management Plan. The monitoring results reflect the condition of a broader catchment upstream from the worksites. See **Appendix B** (Table 8) for further details.

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	No	No	No	- ESC was implemented in accordance with site specific ESC Plan.
Northern Area	Exhibition/RNA	No	No	No	- ESC was implemented in accordance with site specific ESC Plan.
	Northern Portal	Yes	No	Yes	<ul style="list-style-type: none"> - Routine in-stream monitoring undertaken in accordance with WQMP. - Active surface water discharge met water quality investigation criteria.
	Northern Corridor	No	No	N/A	- ESC was implemented in accordance with site specific ESC Plan.

Central Area	Albert Street	No	No	Yes	- Routine in-stream monitoring undertaken in accordance with WQMP
	Boggo Road	No	No	Yes	- Routine in-stream monitoring undertaken in accordance with WQMP.
	Roma Street	No	No	Yes	- Routine in-stream monitoring undertaken in accordance with WQMP.
	Woolloongabba	No	No	Yes	- Routine in-stream monitoring undertaken in accordance with WQMP.
	Southern Portal	No	No	Yes	- Routine in-stream monitoring undertaken in accordance with WQMP.
Southern Area	Fairfield station	No	No	No	- ESC was implemented in accordance with site specific ESC Plan.
	Clapham Yard	No	Yes	No	- Post-rainfall monitoring undertaken. - ESC was implemented in accordance with site specific ESC Plan.
	Rocklea station	No	No	No	- ESC was implemented in accordance with site specific ESC Plan.

2.2.4.2. Groundwater

Groundwater discharge occurred at Albert Street, Boggo Road, Roma Street and Woolloongabba worksites. The groundwater discharge results exceeded relevant water quality objectives (WQO's)² for dissolved oxygen, total nitrogen, organic nitrogen, oxidized nitrogen and ammonia nitrogen. However, these results are consistent with the receiving environment baseline monitoring pre-construction data. The contractor confirmed no changes have occurred onsite to the construction methodologies that would have affected the groundwater results. See **Appendix B** (Table 6) for further details.

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

Groundwater quality monitoring is summarised in the table below:

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	- Discharge of groundwater met Project requirements

	Boggo Road / Southern Portal	Yes	- Discharge of groundwater met Project requirements
	Roma Street	Yes	- Discharge of groundwater met Project requirements
	Woolloongabba	Yes	- Discharge of groundwater met Project requirements
Southern Area	Clapham Yard	No	- No groundwater discharges.

² The Brisbane River Estuary environmental values and water quality objectives (Basin no 143 – mid-estuary) in the Environmental Protection (Water) Policy 2009

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, Dutton Park, Fairfield, Yeronga, Clapham Yard and Rocklea worksites.

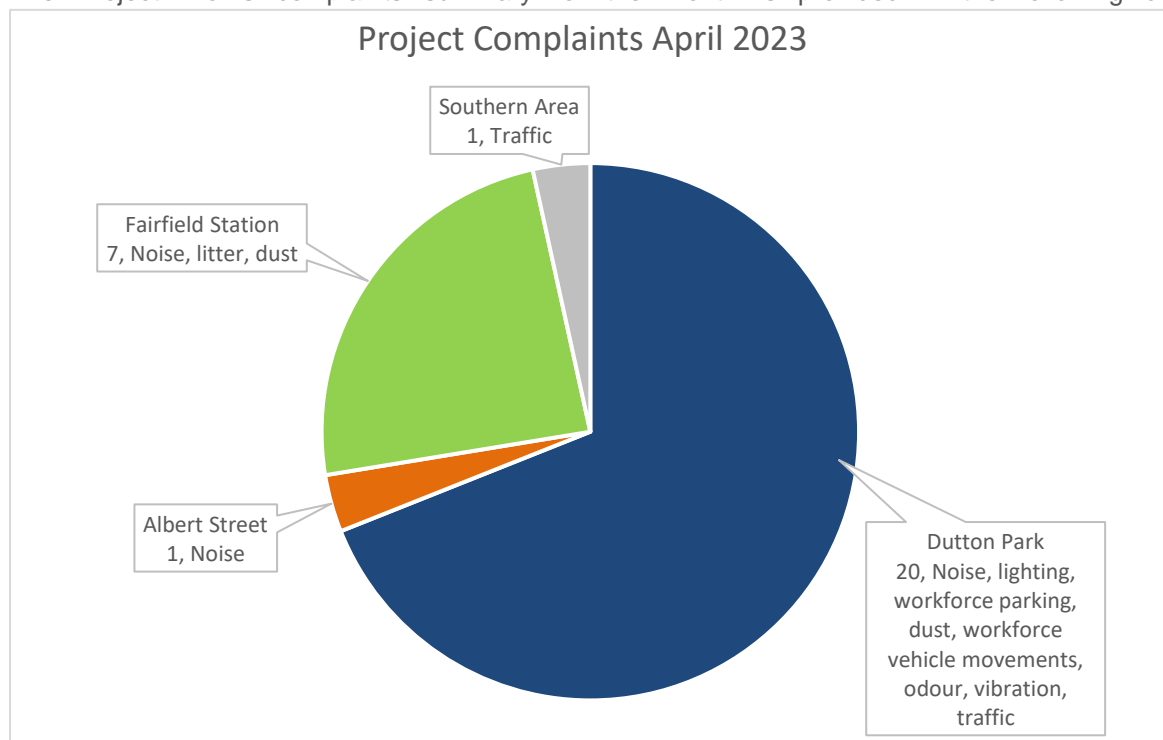
2.3. Complaints Management

A total of twenty-nine complaints were received during the month, all of which were project related.

RIS works received twenty-seven complaints during the April rail possession works relating to noise, litter and dust at Fairfield Station and lighting, workforce parking, noise, dust, workforce vehicle movements, odour, vibration and traffic at Dutton Park. For further details and breakdown of complaints, refer to Appendix A (Table 3).

The TSD works received two complaints related to noise at Albert Street and traffic management at Kent Street (Southern Area). For further details refer to **Appendix B** (Table 10).

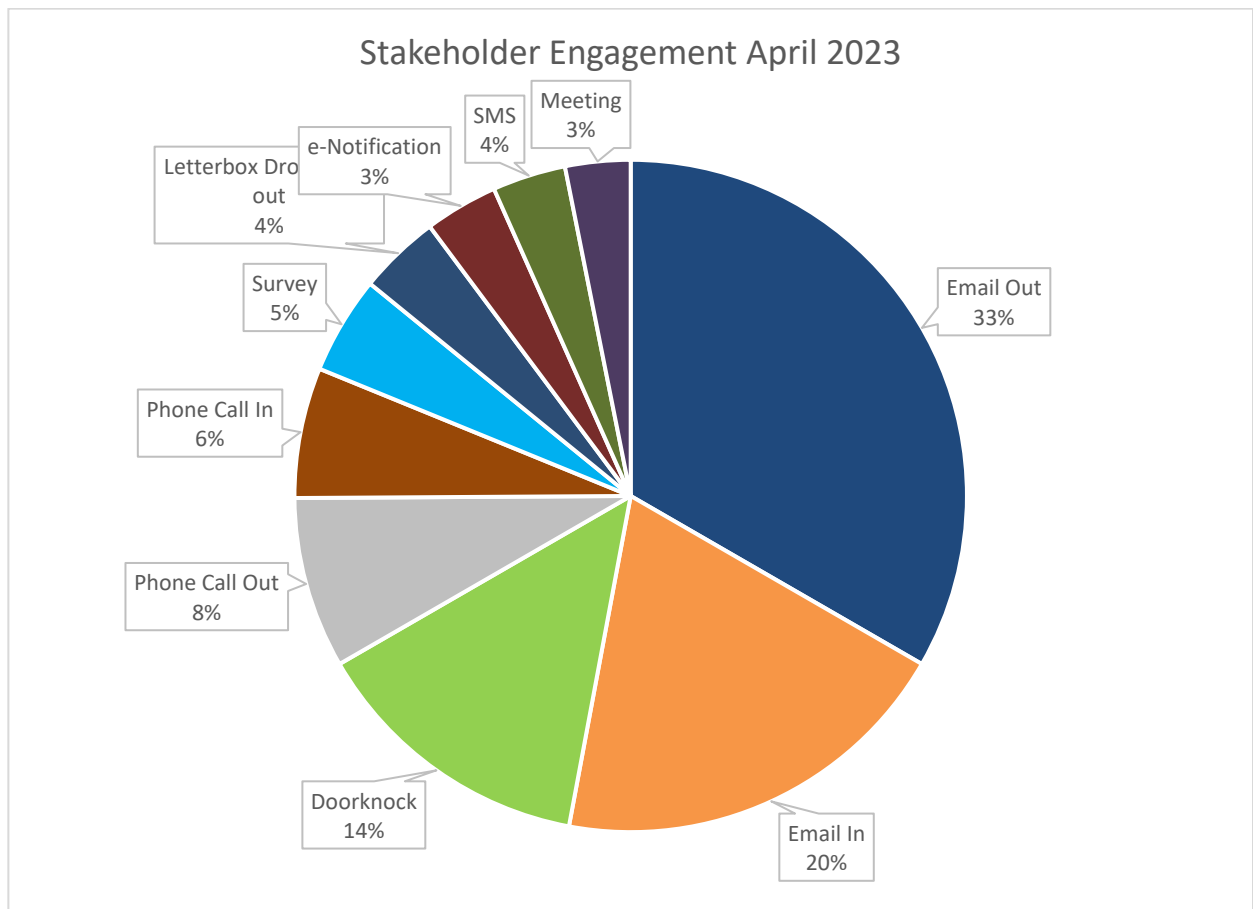
The Project Works complaints summary for the month is provided in the following chart.



When 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, previously 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 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.



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	<p>Mayne Yard North –</p> <ul style="list-style-type: none"> Access Road and Shunt Road construction (North of Ferny Grove Flyover); Cross drainage modifications of pre-load impacted area; and BR08 (Breakfast Creek Bridge) girder installation. <p>Mayne Yard East / West –</p> <ul style="list-style-type: none"> SCAS N-7A entry road mods to QR's Western Maintenance Facilities; Complete Demolition of Mayne Eastern facilities; and Commence Earthworks and CSR for new Vehicle Access Road between MY-East and MY-West.
Northern Area	<p>RNA –</p> <ul style="list-style-type: none"> Complete earthworks and rock removal; Ground retention rock bolting; Inground services including electrical, comms, stormwater, sewer, and wet fire; Piling to commence from 17 April 2023; and FRP of station footings. <p>Northern Corridor –</p> <ul style="list-style-type: none"> Investigation works in preparation of CSR, TFR and drainage scope in Northern Portal Area; Minor civil works (pavements, Earthing and Bonding, footings) around VP FSC; Corridor widening (earthworks and ground retention) North of Bowen Bridge Road, which are now accessible after the SCAS EXT-18; and SCAS EXT-19 planning, predominately rail deflection walls of Bowen Bridge. <p>Northern Portal –</p> <ul style="list-style-type: none"> Commenced internal handover between CBGU JV and UNITY; Watermain tie in to QR carwash; and QR pedestrian bridge works.
Central Area	<p>Roma Street –</p> <ul style="list-style-type: none"> Ongoing mezzanine beam installation; Platform culvert deliveries; and Piling works to follow pedestrian switch. <p>Albert Street –</p> <ul style="list-style-type: none"> Lot 1 – slip 10-12 FRP works upcoming and internal jump form system assembly; Lot 2 – platform culvert installation and completion of AS1 shaft FRP works; and Lot 3 – internal lift core 2 jump 5 and 6 and perimeter wall jump pours ongoing. <p>Woolloongabba –</p> <ul style="list-style-type: none"> The first escalator arrival onsite and installation in southern cavern platform. Two other escalators for northern cavern to arrive in June; Shoring/propping towers to be lowered down to station box to assist with installing first mezz beam in station box; and Telstra comms pit on Main St footpath to be constructed after the Energex pit is completed. <p>Boggo Road –</p> <ul style="list-style-type: none"> Ongoing precast platform culverts and Super T's and truss installation; Perimeter and internal wall FRP works, including topping slab works; and Single cane removal in June. <p>Southern Portal –</p> <ul style="list-style-type: none"> Boggo Road south – last deck units to be installed; MC02 roof and roof slab FRP works; Ongoing firewall and liner wall FRP works; Western and eastern abutment construction and cable stay tensioning for the Princess Alexandra Hospital bridge; and

	<ul style="list-style-type: none"> Ongoing sewer works at Dutton Street. <p>Southern / Dutton Park –</p> <ul style="list-style-type: none"> Retaining wall FRP works to Cope St and Kent St retaining walls; Continue Soil Nailing and Shotcrete works; Continue Noise Wall construction at Cope Street and Fenton Street; and Continue Platform 01 construction including associate Cope St infrastructure.
Southern Area	<p>Fairfield Station –</p> <ul style="list-style-type: none"> Commence construction of Lift 1; Continue lift construction, Lift 02, Lift 03; Continue station building construction & fit-out; Equity & Mildmay Streets finishing work; and Electrical, comms & security cabling, installation of fittings. <p>Yeronga Station –</p> <ul style="list-style-type: none"> Focusing on finalising defect lists closeout documentation. <p>Clapham Yard –</p> <ul style="list-style-type: none"> Northern drainage (in front of Aurizon); Aurizon fence (on top of RW650); Light poles footing installation; Open channel drains, driveways and stone pitching; and Energex cut-over O/H HV to Underground. <p>Rocklea Station –</p> <ul style="list-style-type: none"> Continue inground services throughout platform areas – PL1 & PL2/3; Continued FRP work for the canopy foundations; Continue platform slab construction; Continue FRP for DG retaining wall; Blockwork trade to commence; and Installation of structural steel columns for the overpass modules.

2.5 Non-Compliance Events

No new NCEs were 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	Relevant Condition	Gate 1	Gate 2	Gate 3	Gate 4
Open								
Closed								
CRRDA-001-RIS-001	9/11/19	Noise	Yeronga Station	4, 10, 11	10/11/19	14/11/19	26/11/19	18/12/19
CRRDA-002-TSD-001	27/03/20	ESC	Woolloongabba	4, 15, 18	30/03/20	31/03/20	22/04/20	11/06/20
CRRDA-003-TSD-002	27/03/20	ESC	Boggo Rd	4, 15, 18	30/03/20	31/03/20	22/04/20	11/06/20
CRRDA-004-TSD-003	28/03/20	Traffic	Boggo Rd	4, 10, 14	30/03/20	31/03/20	22/04/20	11/06/20
CRRDA-005-TSD-004	27/03/20	Reporting	Multiple sites	4, 6, 11, 13	30/03/20	31/03/20	22/04/20	11/06/20
CRRDA-006-TSD-005	27/03/20	Air Quality	Multiple sites	13	30/03/20	31/03/20	22/04/20	11/06/20
CRRDA-009-RIS-003	6/05/22	ESC	Clapham Yard	4, 15, 18	28/10/22	28/10/22	12/12/22	12/12/22
CRRDA-010-RIS-004	10/05/22	Potential Acid Sulphate Soils Management	Clapham Yard	4, 19	28/10/22	28/10/22	12/12/22	12/12/22
Withdrawn								
CRRDA-007-RIS-002	1/04/20	Air Quality	Multiple sites	13	28/04/20	30/04/20	Withdrawn	
CRRDA-008-TSD-006	8/04/20	Working Hours	Roma Street	4,10	28/04/20	30/04/20	Withdrawn	

Appendix A RIS Monthly Report

Monthly CGCR Report April 2023

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

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1 Progress Summary - Relevant Project Works

The following Project Works were undertaken during the reporting period:

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

Area	Project Works
Mayne Area	Mayne Yard North <ul style="list-style-type: none"> BR08 (Breakfast Creek Bridge) temporary support works for Pier 3 and 4 completed, piling of Pier 3 complete and centre span girder lifts scheduled for 17 April 2023. QR requested modifications in Mayne Yard North continuing – currently focusing on shunters shed redesign. Mayne Yard East / West <ul style="list-style-type: none"> Mayne Yard East entry road removals and demolition of redundant facilities commenced BR11/13 (vehicle access tripod bridge over future CRR lines) road barrier installation continues BR12 (pedestrian bridge from Bowen Hills Station to MY-West) truss structure installation completed during EXT-18 SCAS. Civil scope for Shunt Road and vehicle access road continuing incl drainage, CSR and earthworks Sewer underbore at Campbell Street completed.
Northern Area	RNA <ul style="list-style-type: none"> Successful major 3-week SCAS to enable RIS-N-9C switch into Stg 2 alignment over new BR43 viaduct which allows Station to commence Demolition of redundant QR embankment, underpath and bridge structure has commenced Excavation work commenced for new station and BR44 viaduct Station and Shared path service install ongoing. Northern Corridor <ul style="list-style-type: none"> Clean up following RIS-N-9C switch, TSD moving Crib facilities up to Vic Park compound area, Site Investigation & works planning around Northern Portal ongoing Energex works within Vic Park feeder station continuing.
Southern Area	Southern Portal / Dutton Park <p>Successful completion of Easter SCAS works including:</p> <ul style="list-style-type: none"> Closure and demolition of Platform 2 (inbound platform) UP Sub - Formation rebuild Construction of Platform 01 Precast Walls including lower level services installation Relocation of 2 existing turnouts Installation of 2 new turnouts Moving the up sub closer to Future Dutton Park Platform 1 Continue CSR network construction Drainage scope installation.

Area	Project Works
Southern Area	Fairfield Station <ul style="list-style-type: none"> Continue with station building fit-out works Mildmay Street gravity wall Stage 2 complete Overpass flooring (permanent) completed Remove existing temp stair 1 scaffold Complete new Stair 1 Complete permanent Equity St & Mildmay St Entrances Implement Stage 2C temporary stage (new stair, entrance, and overpass arrangement) Lift 2 & Lift 3 – lift construction ongoing Offsite manufacture of electrical boards (DB's, MSB's, MDB's etc) Installation of Platform 03 tactiles & coping stones Installation of PL2 / PL3 'Klic' lighting to the soffit.
Southern Area	Yeronga Station <ul style="list-style-type: none"> Yeronga station – final completion and certification of the station remains ongoing.
Southern Area	Clapham Yard <ul style="list-style-type: none"> BR93 (Moolabin Creek Track Bridge) Stage 1 complete (except walkways and Northern relieving slab) BR94 (Chale Street Bridge) Southern Span 2, FRP scope and RSS wall RW640 completed with deck pours and barrier installation continuing. HV relocation to Underground (along Chale Street) complete Landscaping of available areas completed.
Southern Area	Rocklea Station <ul style="list-style-type: none"> Continued inground services throughout platform areas – PL1 & PL2/3 Continue platform concrete slab pours for the platform slabs. Continued FRP work for structural foundations for the canopy foundations Commence FRP works for the building foundation Completion of structural work structural steel package – Overpass Columns, now ready for coating.

Acronyms:

CIP – Cast in Situ Piles

CSR – Combined Services Route

DL – Drainage Line

FRP – Form Reo Pour

HV – High Voltage

OHLE – Overhead Line Equipment

OTV – On Track Vehicle

PUP – Public Utility Plant

RNA - Royal National Agricultural and Industrial Association of Queensland

R&R – Remove and Replace

RSS – Reinforced Soil Slopes

RW – Retaining Wall

SCAS – Scheduled Corridor Access Schedule

UTX – Under Track Crossing

The following table summarises the upcoming Project Works:

Table 2: Summary of upcoming Project Works

Area	Project Works
Mayne Area	<p>Mayne Yard North</p> <ul style="list-style-type: none"> Access Road and Shunt Road construction (North of Ferny Grove Flyover) Cross drainage modifications of pre-load impacted area BR08 (Breakfast Creek Bridge) girder installation. <p>Mayne Yard East / West</p> <ul style="list-style-type: none"> SCAS N-7A entry road mods to QR's Western Maintenance Facilities Complete Demolition of Mayne Eastern facilities Commence Earthworks and CSR for new Vehicle Access Road between MY-East and MY-West.
Northern Area	<p>RNA</p> <ul style="list-style-type: none"> Complete earthworks and rock removal Ground retention rock bolting Inground services including electrical, comms, stormwater, sewer, and wet fire. Piling to commence from 17 April 2023. FRP of station footings. <p>Northern Corridor</p> <ul style="list-style-type: none"> Investigation works in preparation of CSR, TFR and drainage scope in Northern Portal Area Minor civil works (pavements, Earthing and Bonding, footings) around VP FSC Corridor widening (earthworks and ground retention) North of Bowen Bridge Road, which are now accessible after the SCAS EXT-18. SCAS EXT-19 planning, predominately rail deflection walls of Bowen Bridge.
Southern Area	<p>Southern Portal / Dutton Park</p> <ul style="list-style-type: none"> Retaining wall FRP works to Cope St and Kent St retaining walls Continue Soil Nailing and Shotcrete works Continue Noise Wall construction at Cope Street then move down to Fenton Street. Continue Platform 01 construction including associate Cope St infrastructure.
Southern Area	<p>Fairfield Station</p> <ul style="list-style-type: none"> Commence construction of Lift 1 Continue lift construction, Lift 02, Lift 03 Continue station building construction & fit-out Equity & Mildmay Streets finishing work Electrical, comms & security cabling, installation of fittings.
Southern Area	<p>Yeronga Station</p> <ul style="list-style-type: none"> Focusing on finalising defect lists and closeout documentation.
Southern Area	<p>Clapham Yard</p> <ul style="list-style-type: none"> Northern drainage (in front of Aurizon) Aurizon fence (on top of RW650) Light poles footing installation Open channel drains, driveways and stone pitching Energex cut-over O/H HV to Underground.

Area	Project Works
Southern Area	<p>Rocklea Station</p> <ul style="list-style-type: none"> • Continue inground services throughout platform areas – PL1 & PL2/3 • Continued FRP work for the canopy foundations • Continue platform slab construction • Continue FRP for DG retaining wall • Blockwork trade to commence. • Installation of structural steel columns for the overpass modules.

2 Complaints

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

Table 3: Summary of Complaints

Date Received	Location	Issue	Project Works / Activity source of the concern	Reporting Period	Complaint Detail	Unity Response	Status
Wednesday, 05 April 2023	Fairfield Station	Noise	Station Upgrade Works	April 2023	Stakeholder complained about noise from trucks and vehicle movements during night shift.	Team advised that night works were not being undertaken at Fairfield Station during night shift. However, feedback about vehicle movements in the area was passed onto the construction team.	Closed
Saturday, 08 April 2023	Dutton Park	Lighting	Easter SCAS Works	April 2023	Stakeholder advised that construction lighting was shining into their bedroom and had disturbed their sleep.	Team passed on the information to the construction team who redirected the lighting away from the stakeholder's bedroom.	Closed
Saturday, 08 April 2023	Dutton Park	Noise	Easter SCAS Works	April 2023	Stakeholder requested information on the duration and intensity of works adjacent to their property as the noise had disturbed their sleep.	Team advised the stakeholder of the most noise-intensive period during the extended SCAS. Formable ear plugs were offered to the stakeholder.	Closed
Saturday, 08 April 2023	Dutton Park	Noise	Easter SCAS Works	April 2023	Stakeholder complained about the noise and general disruption from the Easter SCAS Works.	Team advised the stakeholder of the works being undertaken and passed on their complaint to the construction team and the TSD construction team.	Closed
Saturday, 08 April 2023	Dutton Park	Workforce Parking	Easter SCAS Works	April 2023	Stakeholder complained about workforce trucks and vehicles parking on residential streets.	Team advised the stakeholder their feedback had been passed onto the construction team and traffic team to improve workforce parking in the area. Information was added to the daily pre-start briefs to remind the workforce of expected driver behaviours.	Closed
Sunday, 09 April 2023	Dutton Park	Noise	Easter SCAS Works	April 2023	Stakeholder complained about noise from trucks during night shift.	Team advised the stakeholder of the most noise-intensive period during the extended SCAS.	Closed
Sunday, 09 April 2023	Dutton Park	Noise	Easter SCAS Works	April 2023	Stakeholder complained about noise from trucks and vehicle movements during night shift.	Team advised the stakeholder of the most noise-intensive period during the extended SCAS and when truck and vehicle movements were expected to finish in their street.	Closed
Sunday, 09 April 2023	Dutton Park	Dust	Easter SCAS Works	April 2023	Stakeholder complained about dust generation from the Works.	Team advised their feedback was passed onto the Site Supervisor who organised for additional water truck sprays in the area.	Closed

Date Received	Location	Issue	Project Works / Activity source of the concern	Reporting Period	Complaint Detail	Unity Response	Status
Sunday, 09 April 2023	Dutton Park	Workforce Vehicle Movements	Easter SCAS Works	April 2023	Stakeholder complained about workforce trucks and vehicles movements on residential streets.	Team advised the stakeholder their feedback had been passed onto the construction team and traffic team to improve workforce parking in the area.	Closed
Sunday, 09 April 2023	Dutton Park	Lighting	Easter SCAS Works	April 2023	Stakeholder complained about construction lighting affecting their already impaired vision during night shift.	Team left a message with the stakeholder and provided an update on the Works programme. Advised them that their feedback was passed onto the construction team.	Closed
Monday, 10 April 2023	Dutton Park	Noise	Easter SCAS Works	April 2023	Stakeholder complained about noise during night shift and the extended SCAS Works disrupting their Easter break.	Team provided an update on the Works programme and advised when the most noise-intensive Works were occurring. Formable ear plugs were offered to the stakeholder.	Closed
Wednesday, 12 April 2023	Dutton Park	Workforce Parking	Easter SCAS Works	April 2023	Stakeholder complained about workforce trucks and vehicles parking on residential streets.	Team advised that the stakeholder's feedback was passed onto the Project's haulage contractor to improve driver behaviours.	Closed
Wednesday, 12 April 2023	Dutton Park	Odour	Easter SCAS Works	April 2023	Stakeholder complained about a burning smell coming from a nearby work area.	Team advised their feedback was passed onto the Site Supervisor to resolve.	Closed
Thursday, 13 April 2023	Dutton Park	Dust	Easter SCAS Works	April 2023	Stakeholder complained about dust generation from the Works.	Team visited the stakeholder to inspect the dust that collected on the back of the stakeholders' property (facing the work area). Team organised for a cleaning company to inspect the residence to provide a quote for dust removal. Team will book in a house clean once the Easter SCAS Works finish.	Closed
Friday, 14 April 2023	Dutton Park	Dust	Easter SCAS Works	April 2023	Stakeholder complained about dust generation from the Works.	Team organised for a cleaning company to inspect the residence to provide a quote for dust removal. Team will book in a house clean once the Easter SCAS Works finish.	Closed
Friday, 14 April 2023	Dutton Park	Dust	Easter SCAS Works	April 2023	Stakeholder complained about dust generation from the Works.	Team organised for a cleaning company to inspect the residence to provide a quote for dust removal. Team will book in a house clean once the Easter SCAS Works finish.	Closed
Friday, 14 April 2023	Dutton Park	Vibration	Easter SCAS Works	April 2023	Stakeholder complained about vibration from the Easter SCAS Works.	Team is in the process of organising an inspection to assess any potential damage.	Open

Date Received	Location	Issue	Project Works / Activity source of the concern	Reporting Period	Complaint Detail	Unity Response	Status
Saturday, 15 April 2023	Dutton Park	Traffic	Easter SCAS Works	April 2023	Stakeholder complained about the intensity and duration of the Easter SCAS Works affecting nearby residential streets.	Team attempted to provide an update on the Works programme but the stakeholder hung up.	Closed
Sunday, 15 April 2023	Fairfield Station	Litter	Easter SCAS Works	April 2023	Stakeholder complained about the workforce littering on residential streets.	Team advised they passed on their feedback to the Site Supervisor who organised for a sweep to be undertaken of the affected area. Advised that the traffic control contractor was asked to remind their workforce of proper rubbish disposal.	Closed
Monday, 16 April 2023	Fairfield Station	Dust	Easter SCAS Works	April 2023	Stakeholder complained about dust generation from the Works.	Team provided an update on the Works programme and advised that the scale and intensity would be reduced shortly, and dust generation would decrease significantly.	Closed
Tuesday, 17 April 2023	Fairfield Station	Litter, Noise & Dust	Easter SCAS Works	April 2023	Stakeholder complained about littering by workforce and noise and dust generated from the Easter SCAS Works.	Team advised they passed on their feedback to the Site Supervisor who organised for a sweep to be undertaken of the affected area. Team also provided an update on the Works programme.	Closed
Tuesday, 17 April 2023	Fairfield Station	Litter, Noise & Dust	Easter SCAS Works	April 2023	Stakeholder complained about littering by workforce and noise and dust generated from the Easter SCAS Works.	Team advised they passed on their feedback to the Site Supervisor who organised for a sweep to be undertaken of the affected area. Team also provided an update on the Works programme.	Closed
Tuesday, 17 April 2023	Fairfield Station	Noise	Easter SCAS Works	April 2023	Stakeholder complained about construction noise during night shift.	Team provided an update on the Works programme and added the stakeholder to the email distribution group to provide regular updates.	Closed
Wednesday, 18 April 2023	Dutton Park	Lighting	Easter SCAS Works	April 2023	Stakeholder complained about construction lighting shining into their property and affecting their sleep.	Team passed on the information to the construction team who repositioned the lighting to below the noise wall to remove the lighting shining into the property.	Closed
Thursday, 19 April 2023	Fairfield Station	Noise	Easter SCAS Works	April 2023	Stakeholder complained about concrete breaking in front of their property.	Team passed on their feedback to the Site Supervisor and organised for the Environment Team to undertake attended outdoor noise monitoring of the Works.	Closed
Thursday, 19 April 2023	Dutton Park	Workforce Parking	Easter SCAS Works	April 2023	Stakeholder complained about workforce vehicles parking on residential streets.	Team passed on their feedback to the Site Supervisor who organised for temporary bollards to be placed opposite the stakeholders' driveway to prevent workforce parking.	Closed

Date Received	Location	Issue	Project Works / Activity source of the concern	Reporting Period	Complaint Detail	Unity Response	Status
Saturday, 21 April 2023	Dutton Park	Workforce Parking	Easter SCAS Works	April 2023	Stakeholder complained that workforce vehicles parking on residential streets was affecting their customers ability to park in the area.	Team provided an update on the Works programme and advised the stakeholder that alternative workforce parking had been organised during the extended SCAS. Team advised they would continue to speak with the workforce and subcontractors to ensure traffic impacts to the community continue to be reduced as much as possible.	Closed

3 Environmental Monitoring Results

The below section summarises the monitoring results to be reported in accordance with Imposed Condition 6(b)(i).

Acoustics

Imposed Condition 11(b) 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 (C-EMP) occurs.

3.1.1 Noise Monitoring

Attended noise monitoring was not triggered based on the predictive noise assessments for the Relevant Project Works during the reporting period.

Complaint-based noise monitoring because of Project Works was triggered during the reporting period.

3.1.2 Noise Monitoring Results

Table 4 Summary of Noise Monitoring Data

Location	Receiver Type Details	Type of Monitoring	Work Hours	Monitoring date and time	Noise Type	Purpose of Monitoring	Predictive model (dBA)	Performance Goal 1 (dBA) (Condition 11(a), Table 2, LA _{10/eq} 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 For interpretation, please refer to section 3.1.6.1
Fairfield Station	Residential	Attended - Outdoors	Standard & Extended Work Hours	Saturday, 22 April 2023	Intermittent	Complaints Response	91	Standard Hours Works 65 (Outdoors) (55dBA + 10dBA façade reduction) Extended Hours Works 52 (Outdoors) (42dBA + 10dBA façade reduction)	Standard Hours Works 85 (Outdoors) (65dBA + 20dBA) Extended Hours Works 72 (Outdoors) (52dBA + 20dBA)	91	89	Yes	Yes Standard Hours Goal 1 only Extended Hours Works Goal 1 & 2	Monitoring was completed approximately 13m from the Works area. The closest residential receiver was approximately 18m from the Works. A rock breaker/ hydraulic hammer attachment (ca. 800-900kg) was the dominant noise source. Monitoring was assessed against the standard and extended hours performance goals as the Works were required to be completed on Sunday dayshift. The monitoring was completed during standard hours. Monitoring was undertaken in response to a complaint received by a nearby resident. Works are compliant with CG condition 11(c) as advance notification and consultation was undertaken with DAPs and mitigation measures were developed on a case by case basis.

- 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 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, several 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.

² Refer to the waterways and water quality management plan, a C-EMP sub-plan for details of derivation of the discharge criteria

3.1.3 Vibration Monitoring

Vibration monitoring to validate the predictive model was triggered for:

- The use of a hydraulic hammer (5T) at the redundant Exhibition Station (RNA) in proximity to State heritage listed buildings (John MacDonald Stand).

The results are presented in the below Table.

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

Vibration monitoring to address property damage was not triggered by the predictive assessment.

3.1.4 Vibration Monitoring Results

Table 5 Summary of Vibration Data

Location	Date (Start and Finish)	Time of day	Closest DAP / Sensitive Place	Receiver Type (table 3 – Imposed Condition 11(e))	Purpose of Monitoring	Vibration intensive equipment	Maximum predicted vibration level	Shortest distance between Equipment and Sensitive Place @Time of Monitoring"	Maximum recorded vibration level	Vibration goal for receiver	Exceedance of vibration limit?	Comments
John MacDonald Stand	01/04/2023 to 30/04/2023	24 hours/ 7days	John MacDonald Stand	Heritage – DIN4150 Group 3	Construction Monitoring at Sensitive Places – Model Verification	5T rock breakers/ hydraulic hammers	1.6mm/s	38m	0.5mm/s	3mm/s State heritage building	No	Monitor was installed at the John MacDonald Stand within a storeroom at the building's foundation. The monitor was approximately 93m away from the hammer (predicted 0.6mm/s) and the closest point of the John Mac Stand from the hammering was 38m (predicted 1.6mm/s). The recorded peak of 0.5mm/s can be attributed to the hammer being used during the demolition of the existing platform approximately.

3.1.5 Interpretation

The RIS scope of works continues to achieve the outcomes set out by the Imposed Conditions and OEMP.

3.1.6 Noise Monitoring

3.1.6.1 Complaints Response

Noise monitoring in response to complaints was triggered during the monitoring period for concrete breakout of a redundant crane pad.

The breakout was undertaken as part of the Station Upgrade Works during the extended Easter SCAS. The concrete was reinforced due to its prior use as a temporary crane pad to install the new pedestrian overpass at Fairfield Station.

Due to low-hanging overhead power lines on the residential street, the size of the excavator and hydraulic hammer attachment were restricted.

Predictive modelling anticipated a noise level of 91dBA LA₁₀ (external). Attended outdoors noise monitoring confirmed there was 0dBA variance between the predicted and actual noise level.

Despite the exceedance of the noise goal, UNITY undertook advance notification and consultation with DAPs and developed mitigation measures on a case by case basis which were implanted during the Works.

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

3.1.7 Vibration Monitoring

3.1.7.1 Model Verification

3.1.7.1.1 John MacDonald Stand Results

Vibration monitoring during platform demolition at the redundant Exhibition Station (RNA) was undertaken at the foundation of the State heritage John MacDonald Stand inside a storeroom. This location was selected based on the outcomes of predictive assessments.

Demolition of the platform was undertaken as part of Stage 2 and 3 demolition works. The peak reading of 0.5mm/s is attributed to the platform demolition. As the predictive model was validated for the monitors location (approximately 93m away), the predicted vibration level for the closest point of the John MacDonald Stand façade (approximately 38m away) is considered accurate (predicted 1.6mm/s).

No exceedances of the revised vibration goal were recorded.

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

Air Quality

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

Visual monitoring was undertaken during routine environmental inspections. A total of 29 inspections were undertaken by the Environment Team across Mayne Yard, RNA Showgrounds, Northern Corridor, Southern Area, Fairfield Station, Yeronga Station, Clapham Yard and Rocklea Station.

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 6 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	1 February 2021	Active
Dust Deposition Gauge	Yeronga Station	AQ-07	12 August 2021	Inactive DDG was decommissioned on 10 December 2021 following the completion of earthworks
Dust Deposition Gauge	Dutton Park	AQ-08	8 July 2022	Active
TSP / PM ₁₀ Monitor	Mayne Yard North (Eastern Air Shed)	Mayne Yard North	26 August 2022	Inactive as of 11 May 2022 CAQP confirmed that the Mayne Yard DMP can be temporarily decommissioned following the completion of Mayne Yard North earthworks. DMP was reinstated for Mayne Yard East Works on 26 August 2022 – see below
TSP / PM ₁₀ Monitor	Mayne Yard East (Eastern Air Shed)	Mayne Yard East	26 August 2022	Active
TSP / PM ₁₀ Monitor	Clapham Yard (Eastern Air Shed)	Clapham Yard	9 August 2021	Partially active (13 – 18 April 2023) The rental DMP battery intermittently ran out of charge and had to be manually recharged during the reporting period.
TSP / PM ₁₀ Monitor	RNA (Western Air Shed)	RNA	25 August 2020	Active

3.1.8 Dust results

As passive dust deposition gauges (DDG) are analysed monthly, results span:

- Mayne Yard, RNA and Dutton Park:
 - 10 March 2023 to 10 April 2023
- Clapham Yard:
 - 13 March 2023 to 10 April 2023

The results are detailed below and compared against Imposed Condition 13(b).

Table 7 Dust deposition gauge results for the reporting period

CGCR Goal (mg/m ² /day)	AQ-01 - RNA Showgrounds (mg/m ² /day)	AQ-04 Grafton Street (E Mayne) (mg/m ² /day)	AQ-06– Clapham Yard (mg/m ² /day)	AQ-08 – Dutton Park (mg/m ² /day)
120	90	17	40	63
Total Rainfall during Period (mm)	59.2mm	119.0mm	141.6mm	56.2mm

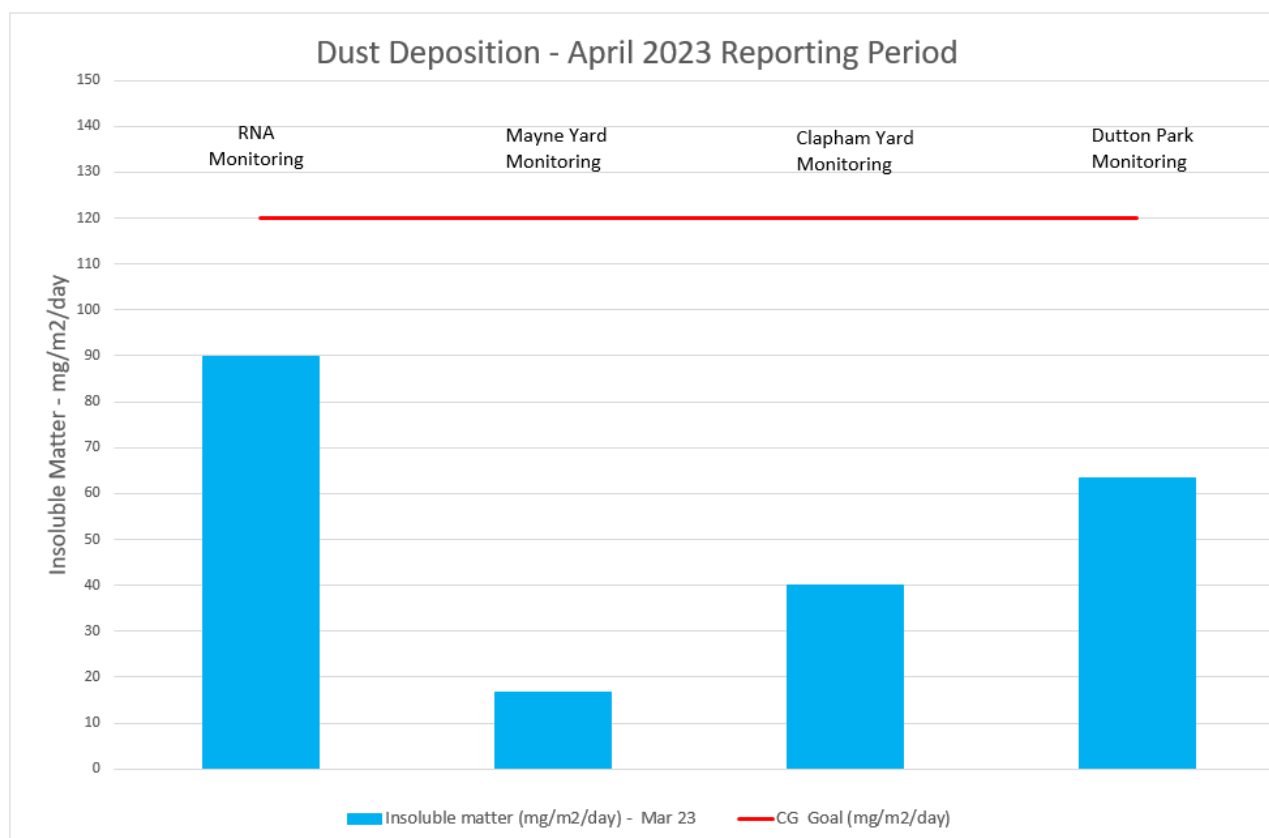


Figure 1 Air Quality Monitoring (Deposited Dust) Results

No exceedances of the dust deposition goal were recorded during the reporting period.

Therefore the Project continues to meet their requirements under Imposed Condition 13 and the OEMP.

3.1.9 Particulates Results

3.1.9.1 Air Quality Monitoring Stations

UNITY had two (2) active and one (1) partially active air quality monitoring stations in place for the reporting period as detailed in Table 6.

3.1.9.2 Monitoring Results – Reporting Period

External ambient air quality data was collected for total suspended particles (TSP), and particulate matter less than 10 μm (PM₁₀).

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).

PM₁₀ 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 installed on-site as per AS/NZS 3850 1.1 following consultation with UNITY air quality professionals. The results are represented in the below figures.

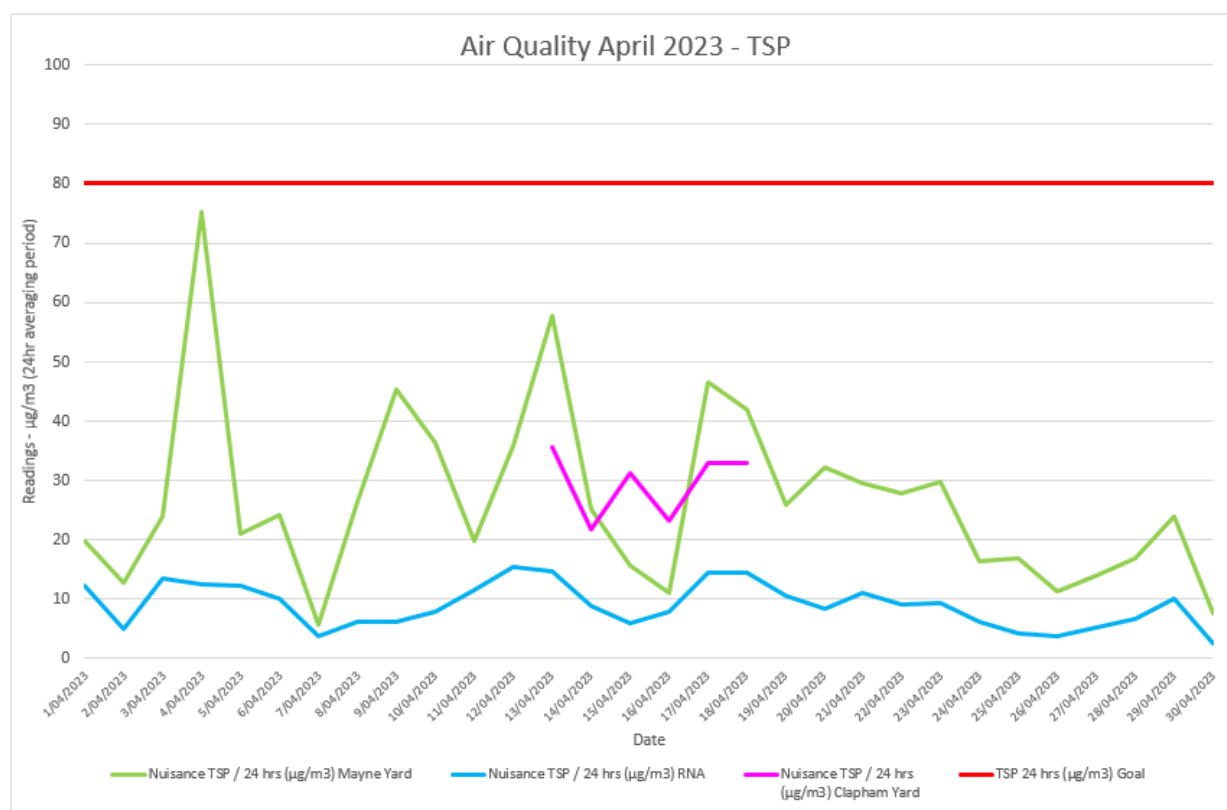


Figure 2 Air Quality Monitoring (TSP) Results

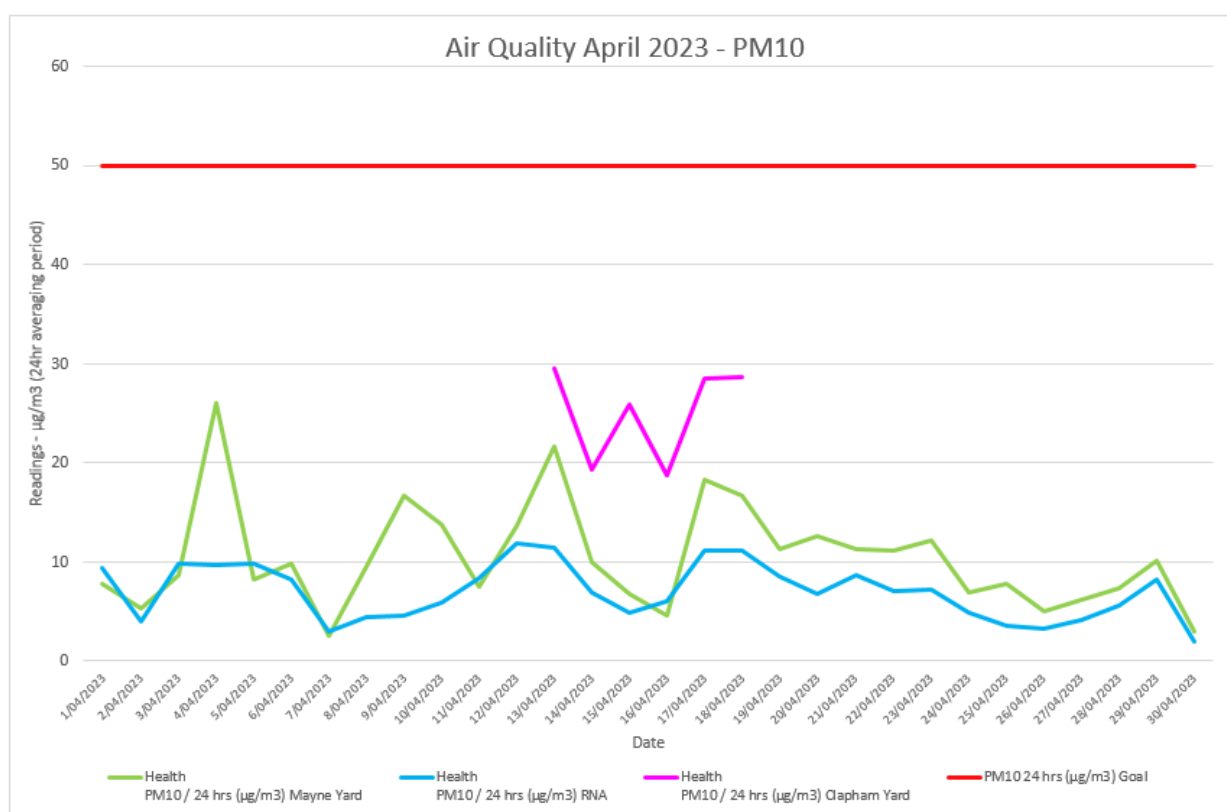


Figure 3 Air Quality Monitoring (PM10) Results

3.1.10 Monitoring Results – Annual Averaging

Imposed Condition 13 (a) sets annual average air quality goals for TSP (Human health) and PM₁₀ (Human health).

The below table summarises where TSP and PM₁₀ monitoring have been carried out over the last 12 months.

The National Environment Protection (Ambient Air Quality) Measure Technical Paper No.5 provides guidance and procedures for uniform data recording and handling.

(<https://www.nepc.gov.au/system/files/resources/9947318f-af8c-0b24-d92804e4d3a4b25c/files/aaqprctp05datacollection200105final.pdf>).

For air quality data to be officially reported, as per section 4.5 of Technical Paper No. 5, the minimum data capture would be 75% of the year or 274 days.

“It is essential that data loss is kept to an absolute minimum. For representative monitoring data and for credible compliance assessment it is desirable to have data capture rates higher than 95%. 75% data availability is specified as an absolute minimum requirement for data completeness”.

In some instances, Relevant Project Works, which triggered TSP and PM₁₀ monitoring was carried out for less than 274 days (e.g., at the Northern Corridor). In such instances the annual averages are still reported but are indicative only as data capture did not meet the 75% data capture requirements of *National Environment Protection (Ambient Air Quality) Measure Technical Paper No. 5 – Data Collection and Handling*.

Table 8 Summary of Air Quality Monitoring Devices Over 12 months

Monitoring Device Installed by UNITY	Area	Date Installed	Date Decommissioned	Number of days data was captured over 365 days period	Data capture over an annual period	Annual performance reporting
TSP / PM ₁₀ Monitor	Northern Corridor (Eastern Air Shed)	23 April 2020	13 January 2021	260 over 365 days	71% over 365 days	<i>Indicative only</i> Data capture did not meet the minimum data capture requirements
TSP / PM ₁₀ Monitor	Mayne Yard North (Eastern Air Shed)	23 April 2020	11 May 2022	Period 1 (to 23 April 2021) 358 over 365 days Period 2 (24 April 2021 to 25 April 2022) 364 over 365 days Period 3 (26 April 2022 to 11 May 2022) 3 days over 47 days	Period 1 98% over 365 days Period 2 99% Over 365 days Period 3 17% Over 47 days	Applicable for Period 1 Data capture met minimum data capture requirements Applicable for Period 2 Data capture has met minimum data capture requirements Applicable for Period 3 Data capture has not met minimum data capture requirements

Monitoring Device Installed by UNITY	Area	Date Installed	Date Decommissioned	Number of days data was captured over 365 days period	Data capture over an annual period	Annual performance reporting
TSP / PM ₁₀ Monitor	Mayne Yard East (Eastern Air Shed)	26 August 2022	Not yet decommissioned	Period 1 (Started 26 August 2022) 178 days over 259 days	Period 1 69% Over 259 days	Not yet applicable for Period 1 Data capture has not yet met minimum data capture requirements
TSP / PM ₁₀ Monitor	RNA (Western Air Shed)	11 June 2020	Not yet decommissioned	Period 1 (to 11 June 2021) 314 over 365 days Period 2 (12 June 2021 to 12 June 2022) 290 over 365 days Period 3 (Started 13 June 2022) 274 over 333 days	Period 1 86% over 365 days Period 2 79% Over 365 days Period 3 82% Over 333 days	Applicable for Period 1 Data capture met minimum data capture requirements Applicable for Period 2 Data capture met minimum data capture requirements Not yet applicable for Period 3 Data capture has not yet met minimum data capture requirements
TSP / PM ₁₀ Monitor	Clapham Yard (Eastern Air Shed)	1 February 2021	Not yet decommissioned	Period 1 (to 31 January 2022) 326 over 364 days Period 2 (01 February 2022 to 31 January 2023) 190 over 365 days Period 3 (started 01 February 2023) 54 over 89 days	Period 1 90% over 364 days Period 2 57% Over 365 days Period 3 60% Over 89 days	Applicable for Period 1 Data capture met minimum data capture requirements Applicable for Period 2 Data capture did not meet the minimum data capture requirements Not yet applicable for Period 3 Data capture has not yet met the minimum data capture requirements

The below table summarises the applicable and indicative annual data results for TSP and PM₁₀ against the performance goals imposed under Condition 13(a). Results in *italic* are indicative only.

Table 9 Annual Performance Results

Air Quality Indicator	Goal	Period	Northern Corridor	Mayne Yard North	Mayne Yard East	RNA	Clapham Yard
TSP 90 µg/m ³		Period 1	8 µg/m ³	11 µg/m ³	Not yet applicable	18 µg/m ³	8 µg/m ³
		Period 2	-	10 µg/m ³	-	15 µg/m ³	16 µg/m ³
		Period 3	-	Not applicable	-	Not yet applicable	Not yet applicable
PM ₁₀ 25 µg/m ³		Period 1	5 µg/m ³	7 µg/m ³	Not yet applicable	11 µg/m ³	5 µg/m ³
		Period 2	-	7 µg/m ³	-	10 µg/m ³	14 µg/m ³
		Period 3	-	Not yet applicable	-	Not yet applicable	Not yet applicable

3.1.11 Interpretation

3.1.11.1 Particulates Results

External ambient air quality was collected for total suspended particulates (TSP) and particulate matter less than 10µm (PM₁₀).

TSP is one of the indicators for which the Coordinator General has imposed a goal of 80µg/m³ (over an averaging period of 24 hours) the project must aim to achieve under Imposed Condition 13(a).

PM₁₀ is one of the indicators for which the Coordinator General has imposed a goal of 50µg/m³ (over an averaging period of 24 hours) the project must aim to achieve under Imposed Condition 13(a).

These stations have been installed on-site as per AS/NZS 3850 1.1 following consultation with UNITY Certified Air Quality Professionals (CAQP).

During the reporting period:

- None of the particulate results exceeded their relevant goals for TSP and PM₁₀ at Mayne Yard, RNA and Clapham Yard
- There were no complaints received associated with air quality concerns during the reporting period for the sites of Mayne Yard, RNA and Clapham Yard.

3.1.11.2 Clapham Yard April Interpretation

In the absence of particulates data for the reporting period at Clapham Yard, UNITY has undertaken an investigation to provide supplementary information to confirm the RIS scope of works has met the project outcomes set out by the CGCR and the OEMP.

A long-term rectification strategy is also being developed which encompasses the following:

- Service and repair of the UNITY Clapham Yard monitor
- Additional air quality modelling to determine if particulates monitoring is required for current and future Clapham Yard Works
- Review of the current and future RNA Works to determine if particulates monitoring is required and if the RNA monitor can replace the Clapham monitor as it has not had recurring data loss issues.

3.1.11.2.1 UNITY Works

During the reporting period Clapham Yard Works consisted of FRP works, RSS and RW barrier installation, HV relocation and landscaping.

The Clapham Yard site is almost entirely capped and exposed areas such as batters and stockpiles have been glued down with polymer spray.

3.1.11.2.2 Meteorological Conditions

As shown in the wind rose below (refer Figure 4) the predominant winds during the reporting period were from a westerly and south-easterly direction. As a result, any potential dust generated from UNITY works would have travelled east and north-east across the Clapham Yard work area and towards the dust deposition gauge located at Unwin Street, Moorooka (refer to Attachment 3).

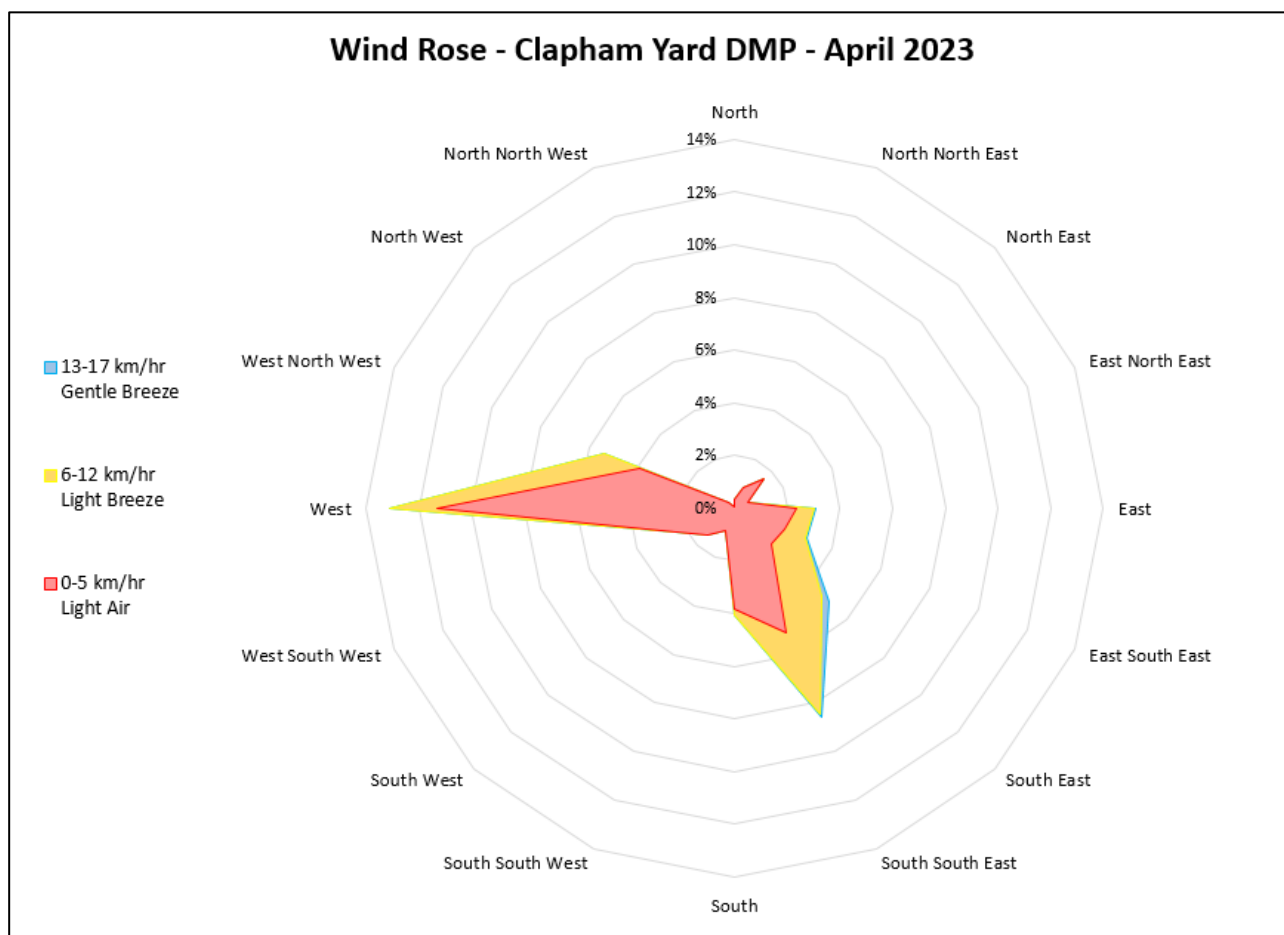


Figure 4 Clapham Yard Wind Rose April 2023

3.1.11.2.3 Air Quality Complaints

During the reporting period, no air quality complaints were received for works associated with Clapham Yard from nearby sensitive receivers.

The Project CAQP has assessed the requirement for particulates monitoring at Clapham Yard and determined that for the current stage of works particulates monitoring is not required. However, continuity of monitoring is being maintained and equipment functionality resolved to ensure sufficient data continuity for potential higher intensity Works.

Therefore, despite the absence of particulates data for the reporting period, the RIS scope of works has met the project outcomes set out by the CGCR and OEMP.

Finally, Project continues to meet their requirements under Imposed Condition 13 and the OEMP.

Water Quality

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

Imposed 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*.

Imposed 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 Imposed Condition 15(a) was not triggered during the reporting period. There were no groundwater discharges during the reporting period.

Water quality monitoring to demonstrate compliance with Condition 15(b) and Condition 18 was triggered during the reporting period. Post rainfall response monitoring was undertaken.

3.1.12 Rainfall Records

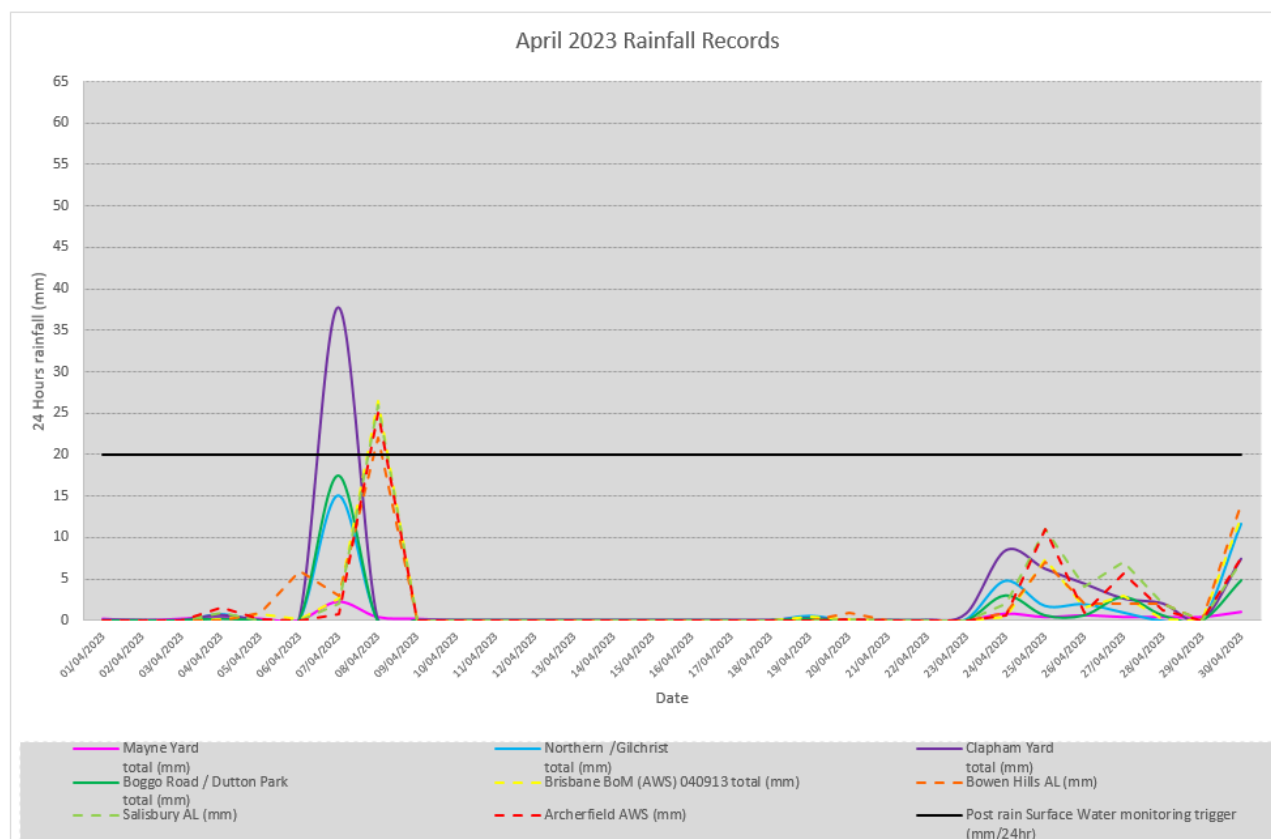


Figure 5 April 2023 Rainfall Records

3.1.13 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 of a higher intensity may cause run-off which would also trigger post-rain monitoring consistent with the C-EMP.

Post rainfall monitoring was triggered as per Condition 15(b) and Condition 18.

Table 10 Post Rainfall Monitoring Results

Date	Location	Waterway	Tide	Discharge Criteria ²				TSS Delta
				Turbidity (NTU) Nil until Turbidity / TSS correlation achieved ³	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 April 2023	SW-5 (upstream)	Moolabin Creek	N/A	Field: 17.1 Lab: 15.2	26	87	7.0	Yes Refer to section 3.1.13.1.1 for details
08 April 2023	SW-6 (downstream)	Moolabin Creek	N/A	Field: 31.7 Lab: 18.0	35	81	6.6	
08 April 2023	SW-7a (upstream)	Rocky Water Holes Creek	N/A	Field: 27.5 Lab: 11.3	27	87	7.5	Yes Refer to section 3.1.13.1.1 for details
08 April 2023	SW-7 (midstream)	Rocky Water Holes Creek	N/A	Field: 39.9 Lab: 24.9	42	84	7.1	
08 April 2023	SW-8 (downstream)	Rocky Water Holes Creek	N/A	Field: 42.7 Lab: 25.6	43	78	6.8	

3.1.13.1 Post Rainfall Monitoring Results Interpretation

Post rainfall monitoring events during the reporting period identified that water quality was visually more turbid than baseline conditions throughout the system at some of the monitoring locations.

Where in situ monitoring was carried out, some downstream locations' water quality data exhibited >10% increase in turbidity (NTU). Further investigation was required to ascertain whether this change in water quality is related to released water from the Project Works.

Therefore, a detailed review of the data was required to ascertain whether:

- The source of the increased turbidity could be reasonably attributed solely to the Project Works; and
- If so, had the Project implemented all reasonable and practicable measures to minimise environmental impacts.

3.1.13.1.1 08 April 2023 Monitoring Event

The assessment found that the storm event size was above the design criteria for the controls required for the Clapham Yard and Rocklea Station Works (RIS work sites reporting to the monitored water bodies). The entire rainfall event was ca. 2EY with 15-minute microbursts above 0.2EY.

The Site-Specific Erosion and Sediment Control Plans (ESCPs) were developed by a suitably qualified person (SQP) consistent with the Guidelines for Best Practice Erosion and Sediment Control (IECA 2008) as per Imposed Condition 18. Pre-rainfall inspections of both sites confirmed that all required controls of the ESCPs were in place.

Therefore, the RIS scope of works were compliant with Imposed Conditions 15 and 18.

² Refer to the waterways and water quality management plan, a C-EMP sub-plan for details of derivation of the discharge criteria

³ 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 discharges the RIS Scope of Works has experienced, there is no correlation available. Typically, a minimum of 20 data points is used to determine TSS / in field turbidity correlation for site waters.

3.1.14 Routine Surface Water Monitoring Results

During the reporting period, UNITY did not undertake routine surface water quality monitoring.

A review of the data sample has identified that over 12 months of continuous data collection has occurred with over 20 monitoring events. The frequency of background monitoring has therefore been reduced to bi-annually, with the wet season monitoring completed in February 2023.

Dry season (April to August) monitoring will be undertaken in the coming months.

This reduction of monitoring frequency is acceptable to continue informing the Dis-1 Credit for the ISCA 'Excellent Rating' the Project is pursuing.

3.1.15 Groundwater Discharge Monitoring Results

Groundwater discharge monitoring was not triggered during the reporting period.

3.1.16 Surface Water Discharge Monitoring

Surface water discharge monitoring was not triggered during the reporting period.

Table 11 Surface Water Discharge Results

Date	Location	Waterway	Discharge Criteria ⁴			
			Turbidity (NTU) Nil until Turbidity / TSS correlation achieved ⁵	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
Nil – Not Triggered						

⁴ Refer to the waterways and water quality management plan, a C-EMP sub-plan for details of derivation of the discharge criteria

⁵ 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 discharges the RIS Scope of Works has experienced, there is no correlation available. Typically, a minimum of 20 data points is used to determine TSS / in field turbidity correlation for site waters.

4 Compliance Review

Non-Compliance Events

The below section summarises the events to be reported in accordance with Imposed Condition 5 and Imposed Condition 6(b)(ii). 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 12 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
N/A for reporting period					

C-EMP Compliance

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

Table 13 C-EMP and relevant Subplans monitoring requirements – Compliance Status for the reporting period

Aspect	Monitoring requirement	Activities risk profile	Monitoring undertaken	Compliance status with C-EMP / 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 is undertaken as part of routine inspections. Monitoring for TSP, PM ₁₀ , and deposited dust was also undertaken TSP, PM ₁₀ monitoring was carried out for two active Worksites	Compliant Compliant Compliant	Not Applicable
Air Quality	Complaint's response	Moderate to High	Yes – visual monitoring undertaken during inspection	Compliant	Not Applicable
Noise	Buffer distance tests based on the outcomes of the predictive assessment based / risk profile of activities	Moderate to High	Not triggered	N/A	Not Applicable
Noise	Plant noise audits for noisy plant to validate models input as required	Moderate to High	No	N/A	Not Applicable
Noise	Complaint's response	Moderate to High	Yes – attended outdoors monitoring completed	N/A	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	Yes – monitoring triggered for MYE demolition Works and RNA Stage 2 demolition Works	Compliant	Not Applicable
Vibration	Complaint's response	Moderate to High	Not triggered No complaints	N/A	Not Applicable

Aspect	Monitoring requirement	Activities risk profile	Monitoring undertaken	Compliance status with C-EMP / Subplan	Effect of the non-compliance
Water Quality	Bi-Annual monitoring	N/A	Wet season monitoring completed during earlier in the year Dry Season monitoring to be completed between May – September 2023	Compliant	Not Applicable
Water Quality	Post Rainfall	Moderate to High	Yes – one monitoring event (5 locations) undertaken 08 April 2023	Compliant	Not Applicable
Water Quality	Dewatering	Moderate to High	Not triggered No dewatering to stormwater	Compliant	Not Applicable

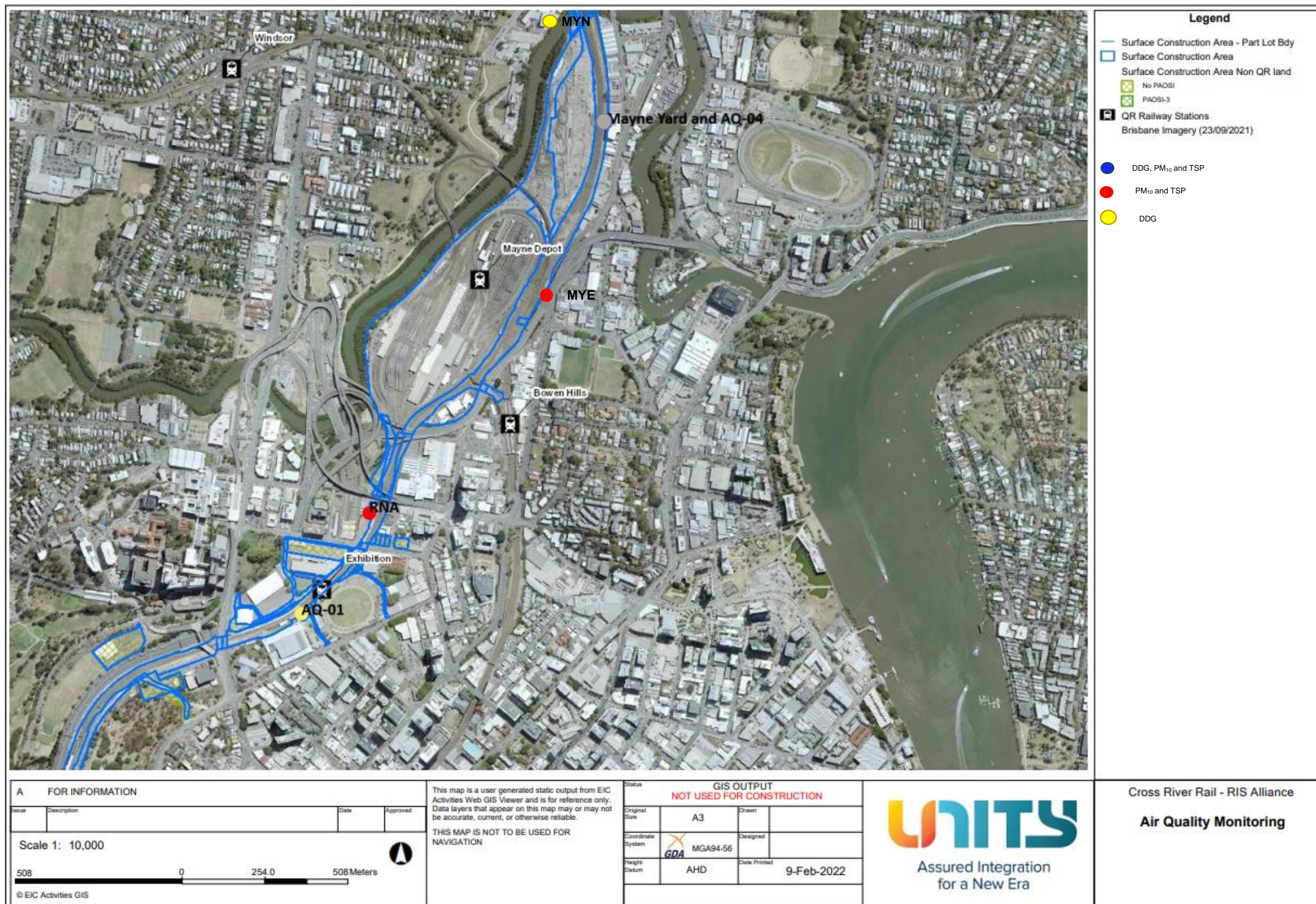
Attachment 1 Imposed Conditions Non-Compliance Event Report (if required)

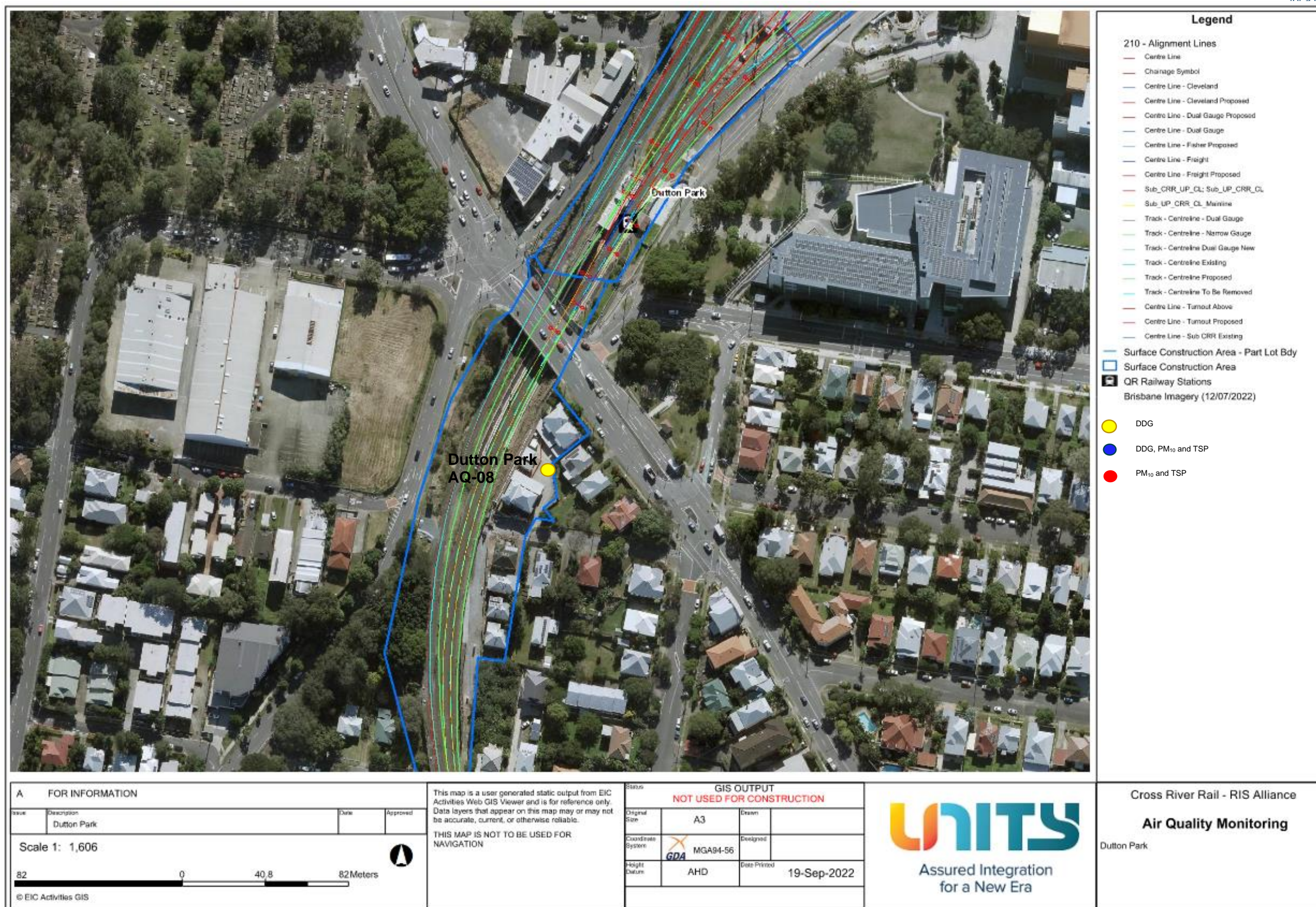
Attachment 2 Monitoring Locations – Noise and Vibration

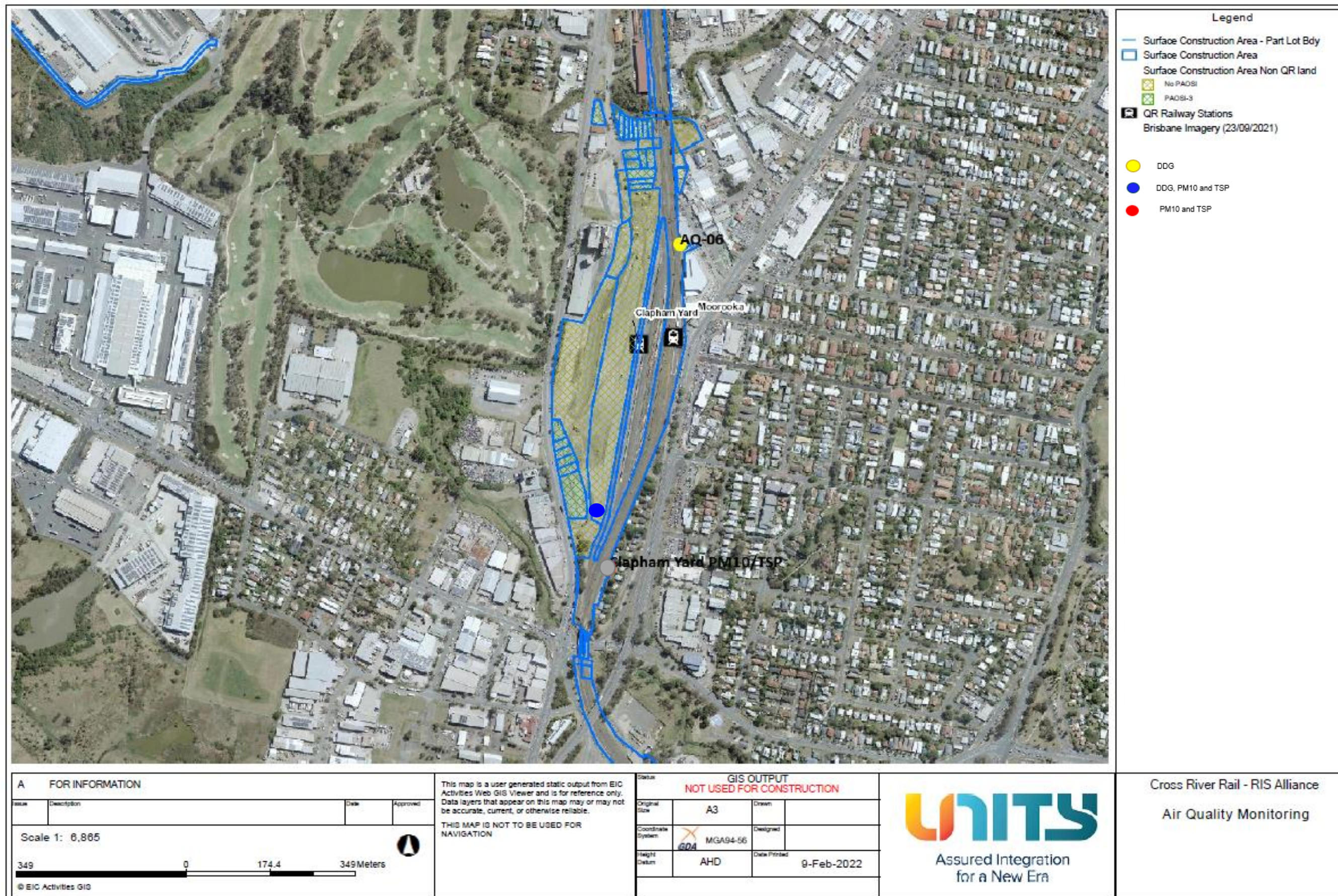


Figure 6 RNA April 2023 Vibration Monitoring

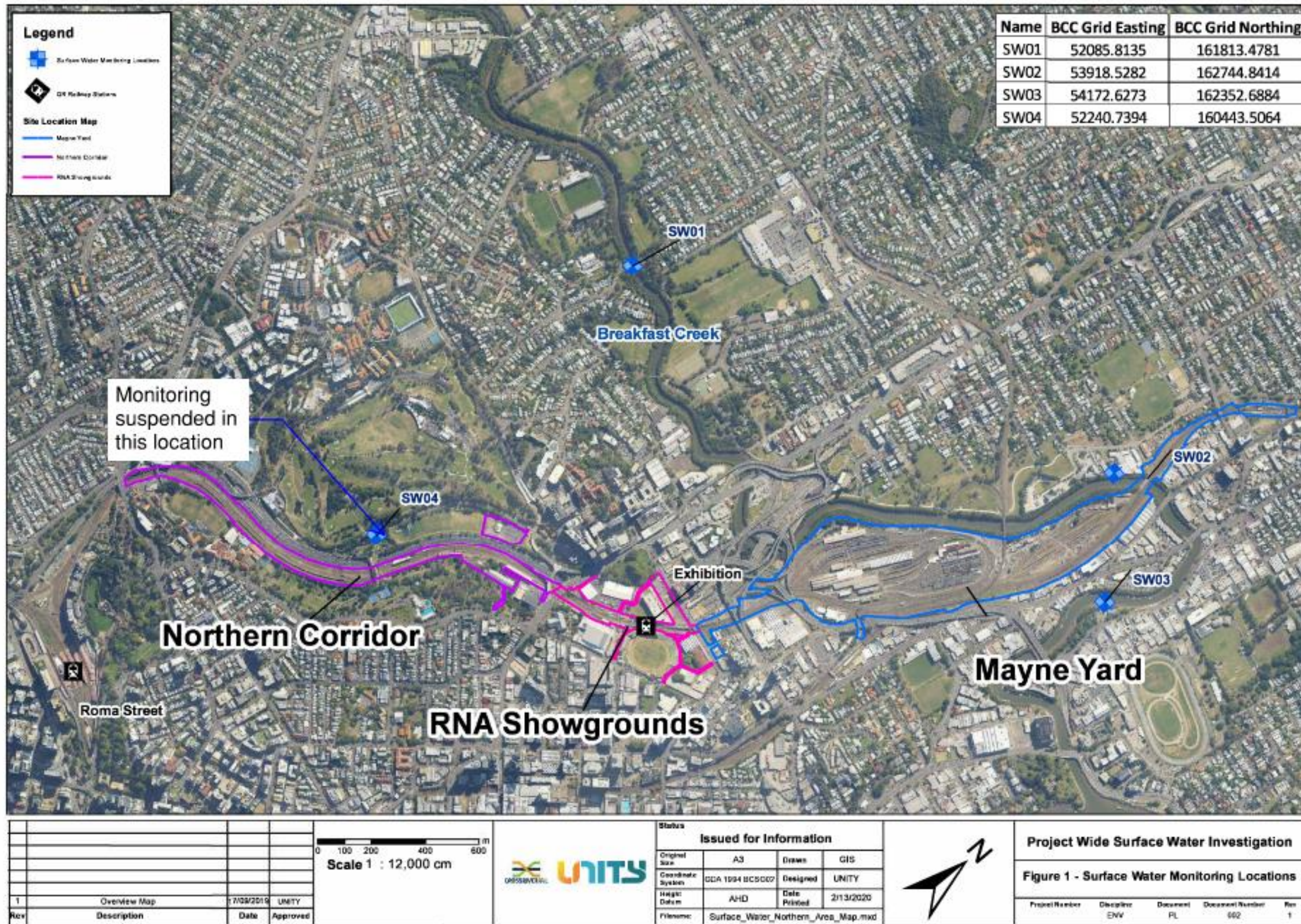
Attachment 3 Monitoring Locations – Air Quality

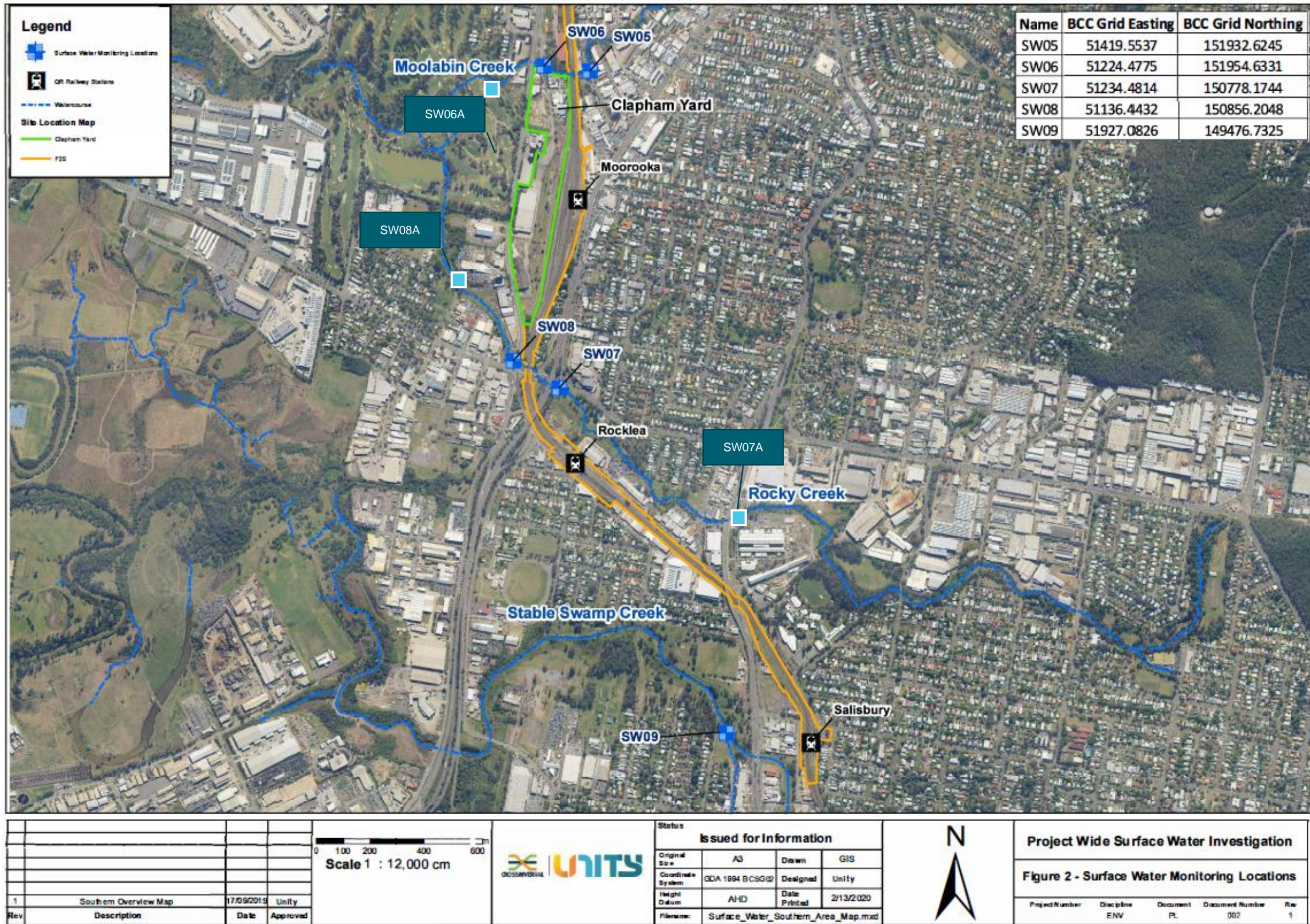






Attachment 4 Monitoring Locations – Surface Water





Appendix B TSD Monthly Report

COORDINATOR-GENERAL'S MONTHLY REPORT: APRIL 2023

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 two (2) occasions during April 2023. Noise monitoring was conducted on nine (9) occasions during April 2023. Each noise and vibration monitoring event that was undertaken 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 2023. Air quality monitoring confirmed works adhered to project requirements.

Water quality monitoring was conducted before the release of water from the site on twenty-three (23) occasions. Each monitoring event confirmed project requirements were adhered to. One (1) round of surface water quality monitoring was conducted; the 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 11).
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.
22.	Flood Water – Temporary emission to allow the release of Flood Waters to high flow receiving waters.	Yes	CBGU project works have been conducted in accordance with the provisions available to manage floodwaters.

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's Change Reports acknowledges instances that exist that these goals may not be achieved.

Vibration monitoring was conducted on two (2) occasions during April 2023. 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	Average Vibration level (mm/s)	Max Vibration Level (mm/s)	Vibration Goal (mm/s)	Receiver / Goal Type	Adhered to Project Requirements (Yes / No)
1.	11/04/2023	11:31:00 AM	19/04/2023	Kalinga Avenue (Northern Portal Precinct)	0.11	0.21	50	Structure	Yes
2.	18/04/2023	10:15:00 AM	24/04/2023	Main Street (Woolloongabba Precinct)	0.14	0.29	2	Heritage Structure	Yes

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 where these goals may not be achieved.

Noise monitoring was conducted on nine (9) occasions during April 2023. 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	Noise Goal LAeq ^[2]	Noise level LAeq	Adhered to Project Requirements (Yes / No)
1.	3/04/2023	9:24:00 PM	Main Street (Woolloongabba Precinct)	Model Verification	External	Utilities works	Traffic	62	67.8	52	65.1	Yes
2.	4/04/2023	8:55:00 PM	Roma Street (Roma Street Precinct)	Model Verification	External	scaffolding & steelworks	Traffic	62	69.5	52	69.1	Yes
3.	13/04/2023	10:52:00 AM	Albert Street (Albert Street Precinct)	Construction Monitoring at Sensitive Places	Internal	Demolition works	Construction	50	34.5	45	32.9	Yes
4.	13/04/2023	11:12:00 AM	Albert Street (Albert Street Precinct)	Construction Monitoring at Sensitive Places	Internal	Demolition works	Construction	55	44.6	45	43.8	Yes
5.	13/04/2023	12:10:00 PM	Albert Street (Albert Street Precinct)	Construction Monitoring at Sensitive Places	Internal	Demolition works	Construction	50	37.4	45	33.9	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	Noise Goal LAeq ^[2]	Noise level LAeq	Adhered to Project Requirements (Yes / No)
6.	17/04/2023	9:25:00 PM	Stanley Street (Woolloongabba Precinct)	Model Verification	External	Utilities works	Traffic	62	67.5	52	63.7	Yes
7.	17/04/2023	9:46:00 PM	Stanley Street (Woolloongabba Precinct)	Model Verification	External	Utilities works	Traffic	62	66.9	52	64	Yes
8.	20/04/2023	1:46:00 AM	Roma Street (Roma Street Precinct)	Model Verification	External	Concrete works	Traffic	54	63.5	47	60.2	Yes
9.	27/04/2023	10:03:00 AM	Vulture Street (Woolloongabba Precinct)	Model Verification	External	Demolition works	Traffic	62	67.2	62	64.4	Yes

- [1] Intermittent noise goal (LA10)

- [2] Continuous noise goal (LAeq)

- [3] Condition 11(c) implemented

- Note: 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.

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 that exist that these goals may not be achieved. Dust deposition monitoring was performed in April 2023. The dust deposition gauges results for the reporting period are detailed below, and all monitoring data adhered to project requirements.

Table 4.2: 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	38.71	Air quality monitoring was performed during the reporting period. All results adhered to project requirements.
Roma Street Precinct				16.13	
Albert Street Precinct (North)				23.33	
Albert Street Precinct (South)				6.67	
Woolloongabba Precinct (North)				20.00	
Woolloongabba Precinct (South)				33.33	
Boggo Road Precinct (North)				- [1]	
Boggo Road Precinct (South)				- [1]	
Southern Portal (South)				- [1]	
Southern Portal (East)				- [1]	

- [1] At the completion of the April Monthly report the Boggo Road and Southern Portal results had not been received from the laboratory. The results will be provided in next month's report.

3.3.2 Particulates and Ambient Air Quality Results

Total Suspended Particles (TSP) and particulate matter less than 10µm (PM10) monitoring were conducted during April 2023.

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 2023. 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	PM10	Woolloongabba		Albert		Boggo Road		Northern Portal	
	Project Goal ^[1]	Project Goal	TSP	PM 10	TSP	PM 10	TSP	PM 10	TSP	PM 10
	(µg/m ³ /24 hr)									
01-Apr-23	80	50	9.85	9.55	15.26	10.77	6.67	6.66	10.10	10.08
02-Apr-23	80	50	9.08	8.90	8.30	6.79	6.51	6.50	13.25	13.23
03-Apr-23	80	50	5.25	5.08	16.06	11.20	3.11	3.09	8.39	8.37
04-Apr-23	80	50	4.86	4.70	14.60	10.60	2.51	2.51	5.02	5.00
05-Apr-23	80	50	8.97	8.60	15.38	11.23	- ^[2]	- ^[2]	8.17	8.15
06-Apr-23	80	50	9.73	9.42	15.26	11.16	2.78	2.76	6.48	6.46
07-Apr-23	80	50	6.97	6.88	6.60	5.97	4.65	4.63	6.81	6.81
08-Apr-23	80	50	5.97	5.45	9.12	6.21	2.40	2.40	4.65	4.56
09-Apr-23	80	50	3.63	3.34	8.85	6.08	2.61	2.58	4.73	4.65
10-Apr-23	80	50	2.94	2.74	7.30	5.24	2.41	2.40	3.52	3.46
11-Apr-23	80	50	3.43	3.27	10.14	6.98	5.17	5.16	3.99	3.94
12-Apr-23	80	50	4.52	4.32	13.15	8.95	4.73	4.73	6.67	6.63
13-Apr-23	80	50	5.93	5.59	18.05	12.09	- ^[2]	- ^[2]	6.05	5.98
14-Apr-23	80	50	8.99	8.75	13.79	9.88	5.96	5.95	8.27	8.24
15-Apr-23	80	50	11.38	11.24	10.98	8.97	5.23	5.23	10.26	10.25
16-Apr-23	80	50	- ^[3]	- ^[3]	6.42	5.76	5.77	5.76	10.49	10.49
17-Apr-23	80	50	- ^[3]	- ^[3]	18.72	13.90	7.43	7.43	11.17	11.14
18-Apr-23	80	50	10.36	10.09	19.27	14.29	7.54	7.54	10.71	10.68

Date	TSP	PM10	Woolloongabba		Albert		Boggo Road		Northern Portal	
	Project Goal ^[1]	Project Goal	TSP	PM 10	TSP	PM 10	TSP	PM 10	TSP	PM 10
	(µg/m ³ /24 hr)									
19-Apr-23	80	50	9.92	9.79	19.18	14.53	- ^[2]	- ^[2]	9.95	9.93
20-Apr-23	80	50	9.16	8.94	18.52	13.28	3.42	3.41	10.60	10.59
21-Apr-23	80	50	8.41	8.19	20.33	14.37	3.64	3.63	7.21	7.19
22-Apr-23	80	50	5.77	5.64	12.03	9.25	2.16	2.16	6.61	6.60
23-Apr-23	80	50	6.63	6.51	8.90	7.77	- ^[2]	- ^[2]	10.19	10.16
24-Apr-23	80	50	7.68	7.56	10.53	9.02	5.01	5.00	7.38	7.38
25-Apr-23	80	50	- ^[3]	- ^[3]	9.68	9.02	4.94	4.94	8.85	8.84
26-Apr-23	80	50	6.43	6.35	10.63	8.59	3.72	3.72	8.30	8.29
27-Apr-23	80	50	8.53	8.43	12.11	9.65	- ^[2]	- ^[2]	10.10	10.09
28-Apr-23	80	50	7.30	7.19	15.97	12.18	- ^[2]	- ^[2]	7.03	7.02
29-Apr-23	80	50	- ^[3]	- ^[3]	14.90	11.81	- ^[2]	- ^[2]	13.85	13.84
30-Apr-23	80	50	- ^[3]	- ^[3]	5.31	4.10	2.48	2.46	3.39	3.38

- [1] Project works must aim to achieve construction air quality goals. The Coordinator-General Change Report – Whole of Project Refinements 2019 acknowledges instances that exist that these goals may not be achieved.
- [2] The Boggo Road air quality unit experienced technical difficulties intermittently during April. As soon as practicable, the unit was inspected, and the problem was resolved. A nearby (Woolloongabba) DES Air Quality Station demonstrated compliant air quality during this outage period. These results are provided below. Low levels were also consistently monitored throughout the month when the unit was operating.
- [3] The Woolloongabba air quality unit experienced technical difficulties intermittently during April. As soon as practicable, the unit was inspected, and the problem was resolved. A nearby (South Brisbane) DES Air Quality Station demonstrated compliant air quality during this outage period. These results are provided below. Low levels were also consistently monitored throughout the month when the unit was operating.

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

- Brisbane CBD: PM₁₀ daily Maximum average: **20.3 µg/m³/24 hr** (<https://apps.des.qld.gov.au/air-quality/chart/?station=cbd¶meter=18&date=1/4/2023&timeframe=month>)
- South Brisbane: PM₁₀ daily Maximum average: **23.6 µg/m³/24 hr** (<https://apps.des.qld.gov.au/air-quality/chart/?station=sbr¶meter=18&date=1/4/2023&timeframe=month>)
- Woolloongabba: PM₁₀ daily Maximum average: **72.5 µg/m³/24 hr** (<https://apps.des.qld.gov.au/air-quality/chart/?station=woo¶meter=18&date=1/4/2023&timeframe=month>).

On the 9, 10, 13 and the 14th of April 2023, the Department of Environment and Science (DES) Woolloongabba's air quality station recorded levels over the PM₁₀ air quality goals. CBGU reviewed the circumstances and confirms the elevated PM₁₀ levels were not related to CBGU JV's works, as the dominate wind direction for April was South Westerly. Ambient air quality measurements can be influenced by external events outside of CBGU JV's control (e.g. road traffic, dust storms, fires).

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 2023 [about Particle PM₁₀](#)

[Brisbane CBD station overview](#)

The guideline for Particle PM₁₀ is 100µg/m³ (1hr avg) and 50µg/m³ (24hr avg).

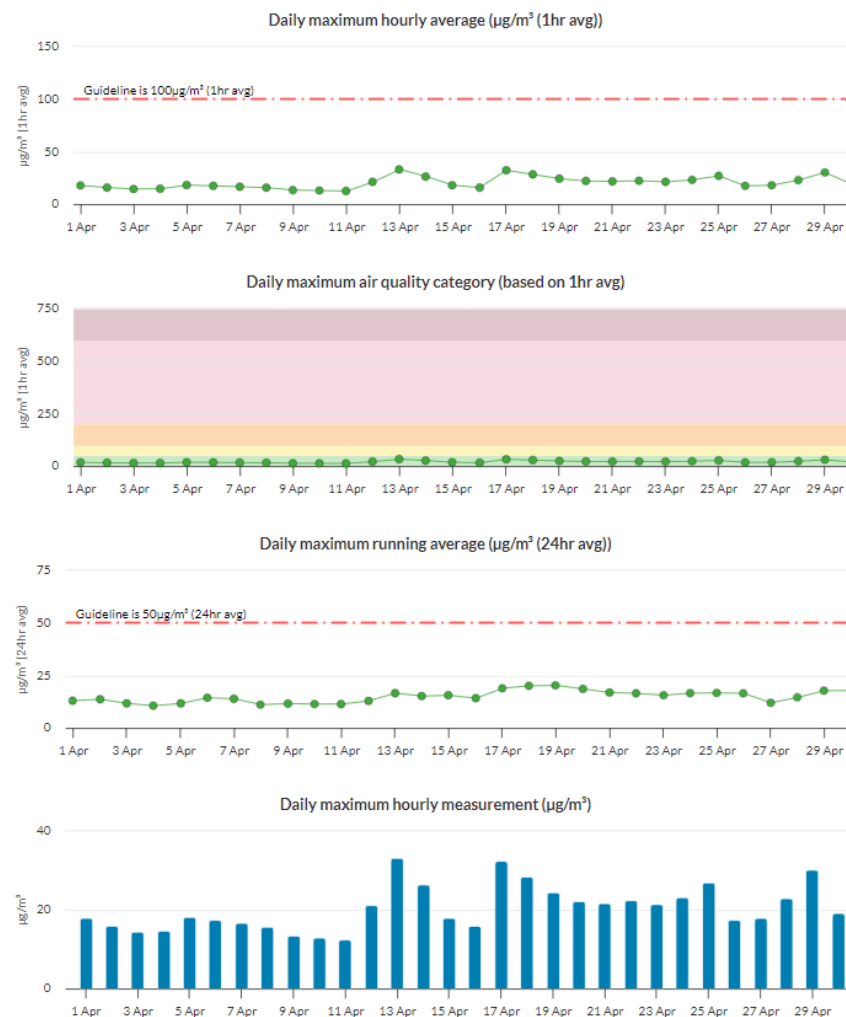


Figure 1: Brisbane CBD – DES Station - PM10 graph for April 2023 (reproduction from the DES website).

Particle PM₁₀ at South Brisbane, 1–30 April 2023 [about Particle PM₁₀](#)

[South Brisbane station overview](#)

The guideline for Particle PM₁₀ is 100µg/m³ (1hr avg) and 50µg/m³ (24hr avg).

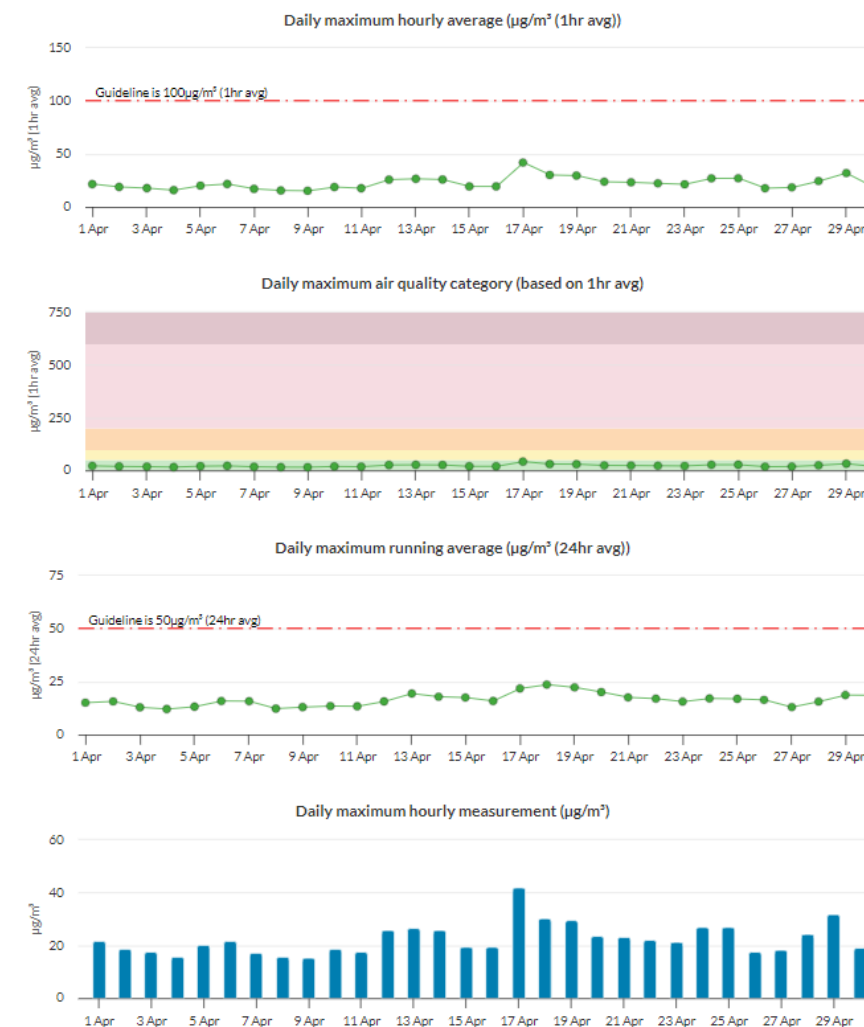


Figure 2: South Brisbane – DES Station - PM10 graph for April 2023 (reproduction from the DES website).

Particle PM₁₀ at Woolloongabba, 1-30 April 2023 [about Particle PM₁₀](#)

[Woolloongabba station overview](#)

The guideline for Particle PM₁₀ is 100µg/m³ (1hr avg) and 50µg/m³ (24hr avg).

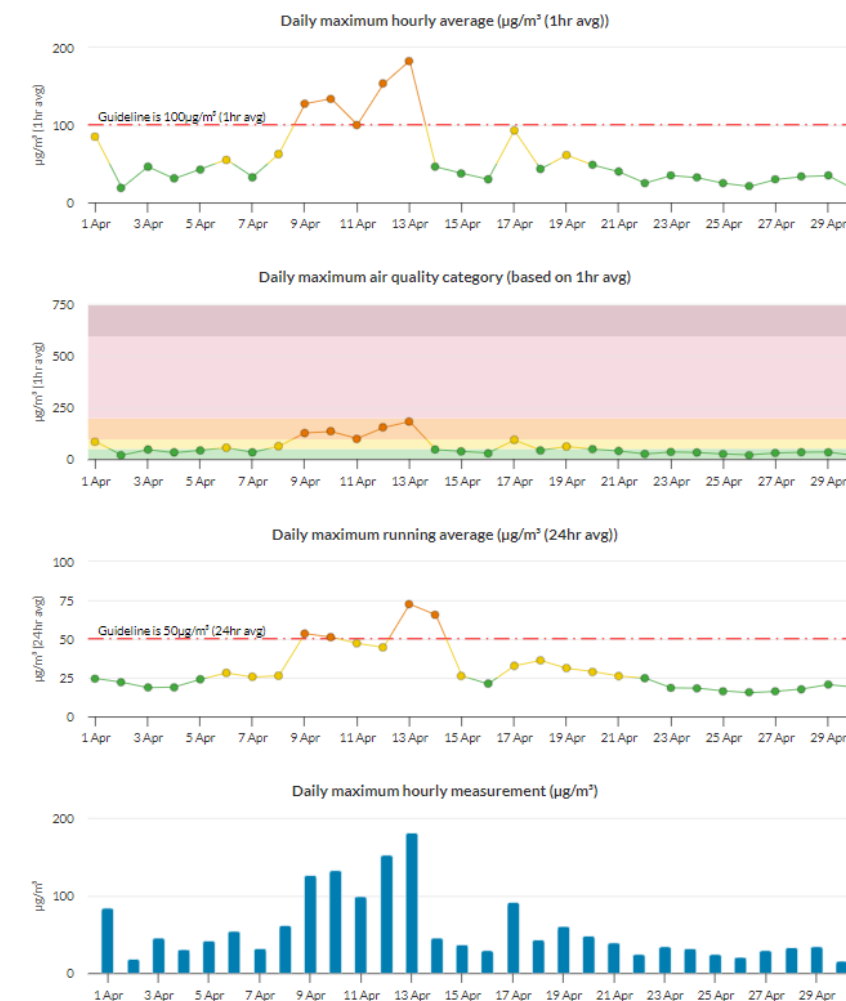


Figure 3: Woolloongabba – DES Station - PM10 graph for April 2023 (reproduction from the DES website).

3.4 Water Quality – Discharge

CBGU undertook four (4) water quality monitoring events before the release (groundwater and surface water) from the site.

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) ^[4]	Total phosphorus (µg/L)	Filterable Reactive phosphorus (µg/L) ^[3]	Chlorophyll a (µg/L)	Dissolved oxygen (%) ^[2]	
Albert Street	12/04/2023	8.06	<5	0.76	370	320	500	1200	10	<10	<1	93.32	Yes
Roma Street	13/04/2023	8.07	<5	0.49	170	590	300	1100	60	20	<1	96.68	Yes
Boggo Road	18/04/2023	8.20	11.00	3.10	90	680	800	1600	<10	<10	<1	106.51	Yes
Woolloongabba	19/04/2023	7.74	<5	0.67	70	420	300	800	<10	<10	1	91.98	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] All results adhere to Project requirements in that site practices are designed to aim to achieve the water quality objectives. The dissolved oxygen samples were acquired before discharge from the site. Pumping of the water will have inadvertently aerated the water, thus influencing the dissolved oxygen level.
- [3] All results adhere to Project requirements in that site practices aim to achieve the water quality objectives. These samples identified results generally consistent with pre-construction conditions, and no external influences were introduced by construction activity.
- [4] Total nitrogen levels adhered to project requirements in that site practices are designed to aim to achieve the water quality objectives. 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 systems, fertilising natural areas, etc.) rather than related to construction activities.
- 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.

3.4.2 Poned/Surface Water Discharge

Discharged ponded/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.	Northern Portal	1/04/2023	8.08	2.53	Yes
2.	Northern Portal	3/04/2023	7.92	6.71	Yes
3.	Northern Portal	4/04/2023	8.01	3.40	Yes
4.	Northern Portal	5/04/2023	8.03	2.24	Yes
5.	Northern Portal	6/04/2023	8.06	2.86	Yes
6.	Northern Portal	8/04/2023	8.09	12.40	Yes
7.	Northern Portal	10/04/2023	8.05	9.33	Yes
8.	Northern Portal	11/04/2023	7.78	5.62	Yes
9.	Northern Portal	12/04/2023	8.09	5.23	Yes
10.	Northern Portal	13/04/2023	8.07	6.31	Yes
11.	Northern Portal	14/04/2023	7.98	4.72	Yes
12.	Northern Portal	15/04/2023	7.73	8.80	Yes
13.	Northern Portal	17/04/2023	8.08	4.17	Yes
14.	Northern Portal	18/04/2023	8.02	3.63	Yes
15.	Northern Portal	19/04/2023	8.17	19.40	Yes

16.	Northern Portal	20/04/2023	8.12	10.46	Yes
17.	Northern Portal	21/04/2023	8.17	3.07	Yes
18.	Northern Portal	22/04/2023	8.18	4.07	Yes
19.	Northern Portal	24/04/2023	8.27	3.42	Yes
20.	Northern Portal	26/04/2023	8.21	4.03	Yes
21.	Northern Portal	27/04/2023	8.08	3.82	Yes
22.	Northern Portal	28/04/2023	8.04	3.66	Yes
23.	Northern Portal	29/04/2023	8.15	4.04	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 2023, CBGU JV undertook one (1) round of surface water sampling at five (5) site 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 also 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
Albert Street	Upstream	12/04/2023	Monthly	5.45	39100	88.35	7.81
Albert Street	Downstream	12/04/2023	Monthly	3.38	39100	85.93	7.79
Northern Portal	Upstream	13/04/2023	Monthly	1.37	1060	117.9	7.21
Northern Portal	Downstream	13/04/2023	Monthly	12.04	369	39.71	6.65
Roma Street	Upstream	13/04/2023	Monthly	4.24	34800	86.73	8.01
Roma Street	Downstream	13/04/2023	Monthly	3.46	39000	88.27	7.97
Woolloongabba	Upstream	20/04/2023	Monthly	10.15	44100	100.03	7.95
Woolloongabba	Downstream	20/04/2023	Monthly	7.01	40000	97.49	7.88
Boggo Road ^[1]	Downstream	20/04/2023	Monthly	6.32	10600	80.51	7.6

- [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 this Month

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

5 Complaints

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

During April 2023, two (2) complaints relating to the Project were received, as detailed in Table 10 below.

Table 10: Summary of Complaints

No.	Date	Location	Description of Issue	Responses	Status of Event
1.	1/04/2023	Albert Street (Albert Street Precinct)	Noise	A stakeholder contacted the Project regarding noise generated from the Albert Street worksite. 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. CBGU reviewed the circumstances and monitoring confirmed works adhered to the Project's noise requirements, and the works undertaken were consistent with the community notification.	Closed
2.	4/04/2023	Kent Street (Southern Area)	Traffic Management	A stakeholder contacted the Project regarding the traffic management at the Kent Street shared user path. CBGU investigated and provided the stakeholder with an overview of the boom gate requirements. CBGU investigated and informed the workforce, via toolbox talk, about behaviour expectations.	Closed