



Cross River Rail Project

Monthly Environmental Report

November 2021

Table of Contents

| | |
|---|-----------|
| EXECUTIVE SUMMARY | 3 |
| Non-Compliance Events | 7 |
| DEFINITIONS | 8 |
| 1. INTRODUCTION..... | 9 |
| 1.1. BACKGROUND..... | 9 |
| 1.2. PROJECT DELIVERY..... | 9 |
| 1.3. REPORTING FRAMEWORK..... | 11 |
| 1.4. MONTHLY ENVIRONMENT REPORT ENDORSEMENT | 11 |
| 2. COMPLIANCE REVIEW | 11 |
| 2.1. RELEVANT PROJECT WORKS..... | 11 |
| 2.2. KEY ENVIRONMENTAL ELEMENTS..... | 13 |
| 2.2.1. Noise | 13 |
| 2.2.2. Vibration | 14 |
| 2.2.3. Air Quality | 14 |
| 2.2.4. Water Quality | 16 |
| 2.2.5. Erosion and Sediment Control..... | 18 |
| 2.3. COMPLAINTS MANAGEMENT | 19 |
| 2.4. NEW UPCOMING PROJECT WORKS | 20 |
| 2.5. NON-COMPLIANCE EVENTS | 21 |
| APPENDIX A RIS MONTHLY REPORT..... | 23 |
| APPENDIX B TSD MONTHLY REPORT | 24 |

Executive Summary

This Monthly Environmental Report (MER) has been produced for Project Works undertaken on site for November 2021 for the Rail, Integration and Systems (RIS), and Tunnel, Stations and Development (TSD) packages. The report addresses the obligations outlined in the Coordinator-General's change report – *Coordinator-General's change report – no. 11 (July 2021)* and the individual contractor's Construction Environmental Management Plans (CEMPs) which have been developed generally in accordance with the Project's Outline Environmental Management Plan (OEMP). The Cross River Rail Delivery Authority (Delivery Authority), as the Proponent of the Cross River Rail Project, is required to submit a monthly report to the Coordinator-General to demonstrate compliance with the imposed conditions.

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

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

The CEMPs prepared by both Unity Alliance (RIS Contractor) and 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 10 covering full scope of RIS works is effective from 29 April 2021. TSD – CEMP Revision 8 covering full scope of TSD works is effective from 9 June 2021. |
| 5. | Compliance and Incident management – Non-compliance events, notifications and reporting. | Yes | There was no non-compliance event (NCEs) in November 2021. Refer to Section 2.5 of this report. |

| Imposed Condition | Requirement Summary | Compliance Met (Yes/No/NA) | Comment |
|-------------------|--|----------------------------|--|
| 6. | Reporting – Monthly and Annual reporting. | Yes | This MER, including RIS and TSD Monthly Reports, 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 and in response to complaints. Noise monitoring confirmed the contractor met project requirements. Refer to Appendix A (Sections 3.1.2 and 3.1.4, and Table 4) . TSD – Noise monitoring was undertaken to validate predicted noise modelling and for stakeholder enquiries. Noise monitoring confirmed the contractor met project requirements. Refer to Appendix B (Section 3.2 and Table 3) . |
| | 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 was not triggered. TSD – Vibration monitoring was undertaken to validate predicted vibration modelling. The TSD contractor confirmed the monitoring results met project goals. Refer to Appendix B (Section 3.1 and Table 2) . |
| 12. | Property damage – relating to ground movement. | Yes | RIS – Predictive vibration modelling has been undertaken for Relevant Project Works and Property Damage Sub-plans have been developed and implemented. |

| Imposed Condition | Requirement Summary | Compliance Met (Yes/No/NA) | Comment |
|-------------------|---|----------------------------|--|
| | | | <p>Pre-condition surveys have been completed at heritage, commercial and residential buildings at RNA, Northern Corridor and Fairfield 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 November.</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 goals.</p> <p>RIS – Refer to Appendix A (Sections 3.2, Tables 7, 8 and 9, and Figures 1, 2 and 3).</p> <p>TSD – Refer to Appendix B (Sections 3.3.1 and 3.3.2, and Tables 4 and 5).</p> |
| 14. | Traffic and transport – Works must minimise adverse impacts on road safety and traffic flow. | Yes | <p>Traffic Management Plans are covered in the CEMPs. Sub-plans for all active worksites have been reviewed by the EM.</p> |
| 15. | <p>Water quality – Works must not discharge groundwater from the construction site above the relevant environmental values and water quality objectives.</p> <p>Monitor and report on water quality in accordance with CEMP and Sub-plans.</p> | Yes | <p>Monitoring and reporting on groundwater and surface water quality was undertaken in accordance with RIS and TSD Water Quality Management Plans.</p> <p>RIS – No groundwater discharges occurred for the month.</p> <p>In-situ post-rainfall monitoring was triggered at Clapham Yard. The results of monitoring and subsequent site investigation determined elevated total suspended solids in receiving waters not to be related to Project Works.</p> <p>Refer to Appendix A Section 3.3.2 and 3.3.5 and Table 10 for results.</p> <p>TSD – In November, active discharge of groundwater occurred from Roma Street and Boggo Road worksites. Monitoring results of groundwater quality prior to discharge is consistent with the pre-construction water quality levels.</p> <p>Active discharge of surface water occurred at the Northern Portal worksite on 21 occasions. Results met water quality discharge criteria.</p> <p>Post-rainfall monitoring was triggered for Brisbane River, York's Hollow and Norman</p> |

| Imposed Condition | Requirement Summary | Compliance Met (Yes/No/NA) | Comment |
|-------------------|--|----------------------------|--|
| | | | <p>Creek. The water quality results reflect the condition of the broader catchment. The monitoring indicates that there were no offsite impacts related to Project Works.</p> <p>Routine in stream monthly monitoring met project water quality requirements.</p> <p>Refer to Appendix B (Table 7) for ground water monitoring results. Refer to Appendix B (Tables 8 and 9) for surface water monitoring results.</p> |
| 16. | Water resources – Evaluate potential impact, plan works, implement controls and monitor inflow of groundwater associated with drawdown. | Yes | <p>RIS – There will be no sustained groundwater extraction involved in the RIS scope of works so predictive modelling of groundwater drawdown is not required. Collection of hydrological data to model potential inflow rates into excavations during construction has been undertaken.</p> <p>TSD – Inflow of groundwater into the worksites is being continuously monitored to validate the predictive modelling.</p> |
| 17. | Surface water – Must be designed to avoid inundation from stormwater due to a 2-year (6hr) ARI rainfall event and flood waters due to a 5-year ARI rainfall event and constructed to avoid afflux or cause the redirection of uncontrolled surface water flows, including stormwater flows, outside of worksites. | Yes | Contractors continue to consider this condition in their site planning and design. |
| 18. | Erosion and sediment control – Provisions for erosion and sediment control must be consistent with the Guidelines for Best Practice Erosion and Sediment Control (International Erosion Control Association, 2008) and the Department of Transport and Main Roads' Technical Standard MRTS52. | Yes | Site specific ESC plans for all active work sites have been reviewed by the EM and implemented on site. |
| 19. | Acid sulfate soils – managed as per the Queensland Acid Sulfate Soil Technical Manual. | Yes | Acid Sulfate Soil Management Plans have been prepared and implemented for all active worksites. |
| 20. | Landscape and open space – general requirement to minimise impacts on landscapes and open space values and specific requirements around Victoria Park. | Yes | 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 |

| Imposed Condition | Requirement Summary | Compliance Met (Yes/No/NA) | Comment |
|-------------------|--|----------------------------|---|
| | | | 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. | NA | N/A |

Non-Compliance Events

There were no NCEs raised in November 2021.

Definitions

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

1.Introduction

1.1. Background

The Cross River Rail Project (the Project) is a declared coordinated project under the *State Development and Public Works Organisation Act 1971* (SDPWO Act). The CRR Environmental Impact Statement (EIS) was evaluated by the Coordinator-General who recommended the Project proceed, subject to Imposed Conditions and recommendations. Since the evaluation of the EIS, a number of Requests for Project Change (RfPC) submissions have been evaluated by the Coordinator-General. RfPC 11 was endorsed in July 2021 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.

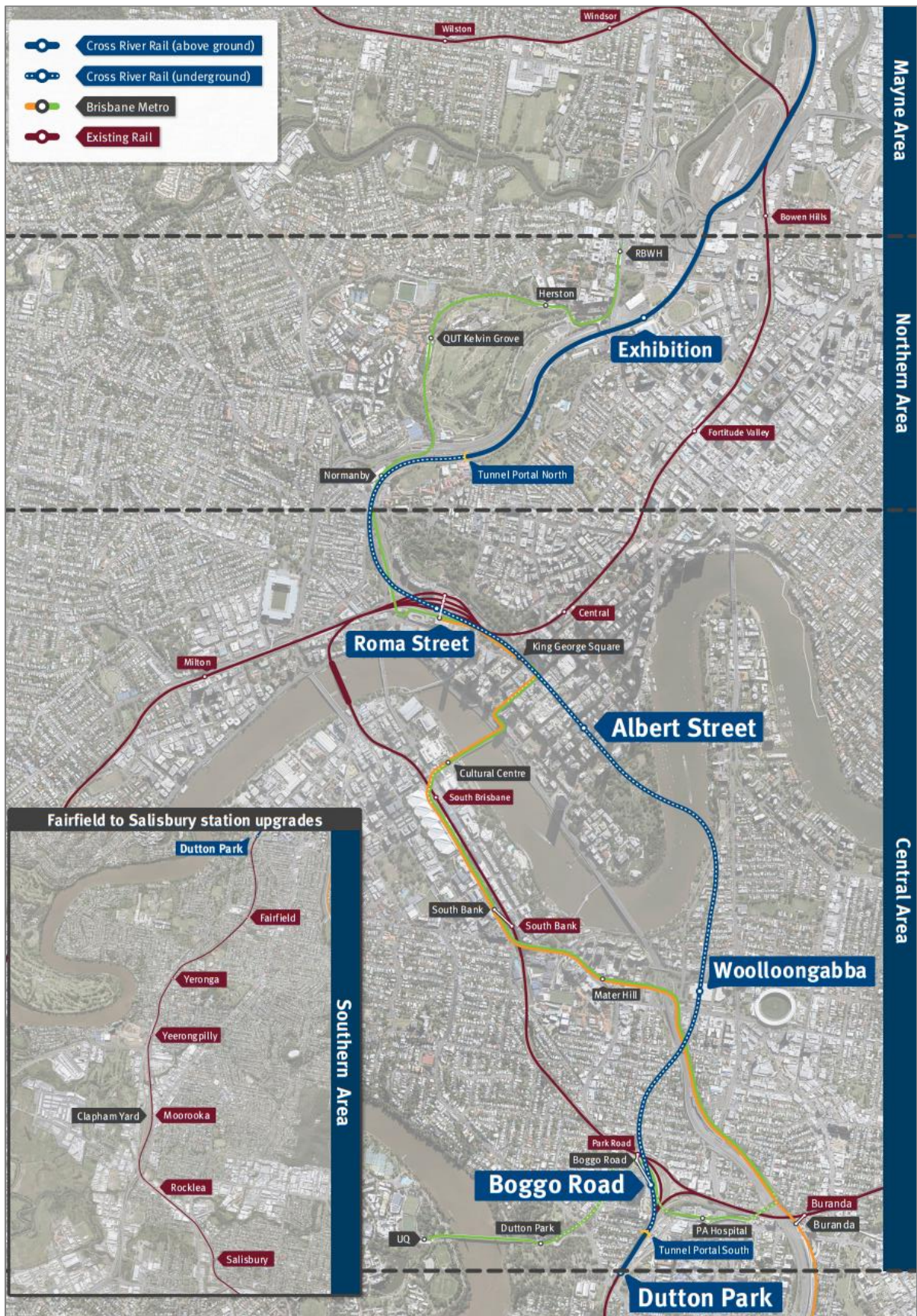
The two main delivery packages which require reporting under the Coordinator-General's imposed conditions are:

- 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 are shown in the figure over.



1.3. Reporting Framework

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

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

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

1.4. Monthly Environment Report Endorsement

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

2.Compliance Review

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

2.1. Relevant Project Works

The following Project Works were undertaken in November 2021:

| Area | Project Works |
|---------------|--|
| Mayne Area | Mayne Yard North – <ul style="list-style-type: none">• Ballast, sleeper, and rail placement Road 6-11 completed;• Tamper has completed roads 6-11 with in ground services for roads 2-5 nearing completion;• OHLE structure installation ongoing;• Pier protection for Ferny Grove Flyover FRP scope nearing completion;• Crew Change Building roofing completed and cladding continues; and,• Graffiti Removal Facility FRP scope completed, and structural steel commenced. |
| Northern Area | Northern Corridor – <ul style="list-style-type: none">• Rock excavation for western corridor widening completed with only detailed rock excavations for concrete lined drains pending;• Pier protection at O'Connell Terrace Bridge nearing completion; and• Retaining wall RW260 FRP works nearing completion. RNA – <ul style="list-style-type: none">• Pier protection at O'Connell Terrace complete;• Drainage scope through RNA including Sneyd St drainage commenced;• BR43 western viaduct FRP works ongoing; and,• Retaining wall (RW210-2) installation commenced. Northern Portal – <ul style="list-style-type: none">• TBM Else breakthrough achieved;• Ongoing capping beam pours and deck unit installation; and• Ongoing excavation of dive structure. |
| Central Area | Roma Street – <ul style="list-style-type: none">• Services building base slab and lift pit base complete; |

| Area | Project Works |
|---------------|---|
| | <ul style="list-style-type: none"> Station building excavation and retention works in progress at bench 13 and 15 of 15; Cavern invert slab pours and waterproofing ongoing, adit RA6 excavation nearing completion; and Inner Northern Busway (INB) pile cap works in progress with 2 of 9 columns cut. <p>Albert Street –</p> <ul style="list-style-type: none"> Lot 1 – station box excavation and ground retention continues; blast preparation works commenced; Lot 2 – northern heading excavation complete and lining of adit AA7 complete; and Lot 3 – excavation continuing (~37% complete), calbah stairs installed and ongoing ground retention. <p>Woolloongabba –</p> <ul style="list-style-type: none"> Station jump form system lift 11 complete; Climbtrack system on external walls now up to B2 Level; Southern cavern permanent lining complete; Northern cavern invert formwork, reinforcement, and concrete Pouring (FRP) works ongoing; TBM #1 (Else) broke through at the Northern Portal on 25 November 2021, completing 2242; and, TBM #2 (Merle) progressing towards the Northern Portal completing 1967 rings by the end of November; <p>Boggo Road –</p> <ul style="list-style-type: none"> First arch pour in the northern cavern complete; All invert works complete in the northern cavern; Southern end of station box wall jump forms fitted and progressing; Ongoing sump steel fixing of base slab; and Ongoing slab and wall pours. <p>Southern Portal –</p> <ul style="list-style-type: none"> Capping beam construction ongoing (68% complete); Detailed excavation and shotcrete within cut and cover trough ongoing; Precast beams installed and topping slab pours complete; Sewer and stormwater micro tunnelling towards Shaft 1 on Railway Terrace and Shaft 8 on Kent Street achieved, 59% of overall micro tunnelling completed; Ongoing piling at Boggo Road South beneath the freight flyover; Freight flyover pier protection complete; QR communications cable relocation complete during SCAS. All communications now routed through the new Communications Equipment Room (CER); Completed Overhead Line Equipment (OHLE) mast foundations and commenced mast installations; and Commenced track foundation and track construction along Kent Street. |
| Southern Area | <p>Dutton Park –</p> <ul style="list-style-type: none"> Retaining wall capping beam pours and shotcrete works complete. <p>Yeronga Station –</p> <ul style="list-style-type: none"> Installation of rail overpass structure from Platform 1 to Fairfield Rd; Installation of Platform 1 and 2 lift shaft structural steel work and precast; Platform concrete slab pours; Platform 2 inground hydraulics; Platform 1 blockwork retaining wall commenced; and, Stormwater under track crossings complete. |

| Area | Project Works |
|------|--|
| | Clapham Yard – <ul style="list-style-type: none"> Earthworks continues with ongoing material import for core embankment construction; Drainage scope commenced. |

2.2. Key Environmental Elements

2.2.1. Noise

The Coordinator-General's conditions establish a framework for managing the impacts of noise. The Imposed Conditions do not establish noise limits. Compliance with the Imposed Conditions noise requirements involves demonstrating the implementation of the endorsed CEMP and associated Noise and Vibration Management Plan. This establishes the management measures to be applied which aims to achieve the identified noise goals as far as reasonably practicable. The CEMP also includes requirements for the provision of the required community notifications of upcoming work, potential impacts, and how the project team can be contacted in relation to any potential impacts.

For Project Works where potential noise impacts are modelled to be above the noise goal but below the noise goal plus 20dBA, this work is authorised where the endorsed CEMP and associated Noise and Vibration Management Plan is being implemented, including communicating construction activities to potential and actual Directly Affected Persons (DAPs). For Project Works where potential noise impacts are predicted to be more than 20dBA above the relevant noise goal, specific engagement is required with DAPs for these works.

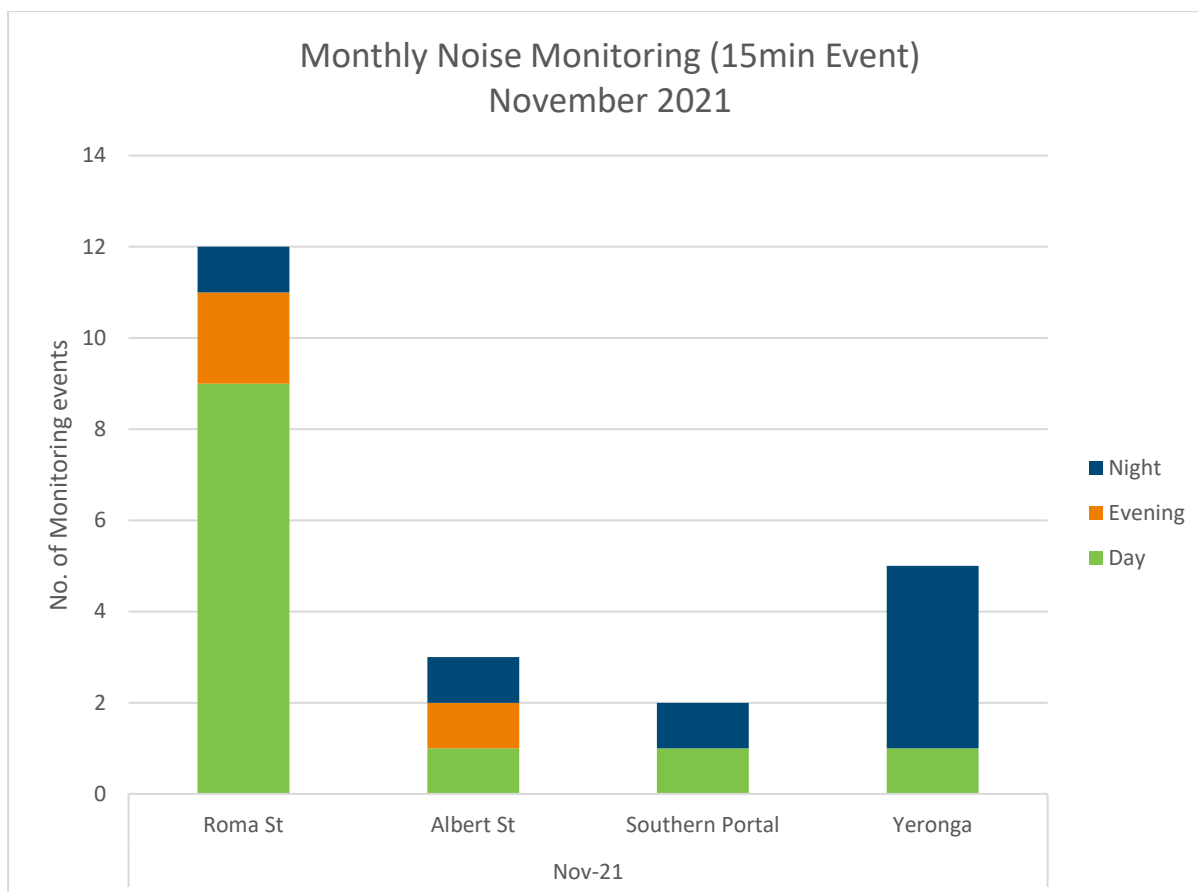
Where internal monitoring was not possible, contractors have undertaken external monitoring at nominated locations. To determine compliance with the project's noise requirements and to calibrate modelled predictions the project applies recommended façade attenuation corrections, which consider receiver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

In the Northern Area, noise monitoring was undertaken in response to a complaint during rock-breaking at RNA Showgrounds. Noise levels met project requirements.

In the Central Area, noise monitoring was undertaken to validate predictive modelling at sensitive places close to the project worksites, particularly at the Roma Street site, where nine controlled blasts occurred between 3 and 25 November 2021. Noise monitoring was also undertaken in response to noise enquiries and complaints. Monitoring results for the Central Area are detailed in Table 3, **Appendix B**. The TSD contractors reported that the project noise requirements have been met during this reporting month.

In the Southern Area, noise monitoring was undertaken to validate the predictive model during a crane lift for the pedestrian overpass at Yeronga and during use of a vacuum truck at Rocklea during extended hours. Monitored noise levels met project requirements. Noise monitoring in response to complaints was not triggered. Monitoring results for the Southern Area are detailed in Table 4, **Appendix A**.

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



2.2.2. Vibration

Vibration monitoring at Mayne and the Southern Area was not triggered.

In the Northern Area, vibration monitoring took place to validate predictive modelling for TBM tunnelling works in Petrie Terrace. The reported results met the project's nominated goals. Vibration monitoring results for the Northern Area are detailed in **Appendix B** (Table 2). In the Central Area, vibration monitoring took place to validate predictive modelling for controlled blasting at Roma Street and micro tunnelling and piling works in the Southern Portal. The reported results met the project's nominated goals. Vibration monitoring results for the Central Area are detailed in **Appendix B** (Table 2).

2.2.3. Air Quality

2.2.3.1. Dust Deposition

Dust deposition monitoring was conducted at Mayne, Northern, Central and Southern Area worksites. In all cases dust deposition results met the project air quality goal¹.

A summary of dust deposition monitoring is provided in the table below.

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

| Air Quality – Dust Deposition Monitoring | | | |
|--|------------------|--|---------------------------------|
| Area | Worksite | Monitoring Location | Comments |
| Mayne Area | Mayne Yard | Mayne Yard | - 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) | - Results met air quality goal. |
| | | Peter Doherty Street/Leukemia Foundation | - Results met air quality goal. |
| | Southern Portal | Dutton Park Station | - Results met air quality goal. |
| | | PA Hospital - Central Energy Unit along Kent Street | - Results met air quality goal. |
| | 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 | Clapham Yard | Clapham Yard (East) | - Results met air quality goal. |
| | Yeronga Station | Yeronga Station | - Results met air quality goal. |

2.2.3.2. Particulate Matter and Total Suspended Particulates

Monitoring for particulate matter (PM₁₀) and total suspended particulates (TSP) was conducted at Mayne, Northern, Central and Southern Area worksites. There was one complaint received in the Northern Area that was determined not to be related to Project Works. See Appendix A, Section 3.2.3 for further detail.

The Boggo Road air quality monitor experienced technical difficulties between 1-11 November 2021, however the monitor was reinstated on 12 November 2021. A review of the nearby DES air quality monitoring station (Woolloongabba) demonstrated PM₁₀ levels within that airshed, between 1-11 November 2021 were compliant with project air quality goals.

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

| Air Quality – PM ₁₀ / TSP Monitoring | | | |
|---|------------------|-------------------------------|----------------------------------|
| Area | Worksite | Monitoring Location | Comments |
| Mayne Area | Mayne Yard | Mayne Yard North | - Results met air quality goals. |
| Northern Area | RNA / Exhibition | Lanham Yard | - Results met air quality goals. |
| | Northern Portal | Brisbane Girls Grammar School | - Results met air quality goals. |

| Air Quality – PM ₁₀ / TSP Monitoring | | | |
|---|----------------------------|--|--|
| Area | Worksite | Monitoring Location | Comments |
| 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. - Monitoring unit experienced a technical fault with no results between 1-11 November. |
| | Roma St | Roma Street Station | - Results met air quality goals. |
| | Woolloongabba | Place Park, Woolloongabba | - Results met air quality goals. |
| Southern Area | Clapham Yard | Clapham Yard | - Results met air quality goals. |

2.2.4. Water Quality

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

2.2.4.1. Surface Water

Post rainfall monitoring was triggered at Mayne, Northern, Central and Southern Area worksites, and active surface water discharges occurred from the Northern Portal site for dewatering purposes once treated to meet water quality objectives.

At Mayne Yard post rainfall monitoring was triggered on 23 and 30 November. Post rainfall site inspections confirmed that erosion and sediment controls were maintained with no evidence of stormwater run-off from construction activities leaving site. In stream water quality monitoring at Breakfast Creek was not triggered.

In the Central Area at the Boggo Road and Southern Portal worksites, post rainfall monitoring in receiving waters at Norman Creek identified an exceedance of the water quality investigation criteria on 24 November 2021. As monitoring results reflect the condition of a broader catchment upstream from the worksites, it was determined that the exceeded levels could not be reasonably related to Project Works.

At the Northern Portal, post rainfall monitoring in receiving waters at York's Hollow was undertaken. Water quality results measured in stream showed similar water quality characteristics between the upstream and downstream monitoring locations. Refer to Table 9 In Appendix B for further detail. The monitoring results reflect the condition of the broader catchment upstream, not just the influence of the project. Active dewatering via pumping was undertaken and water discharge from the project did not appear to have an impact on the catchment.

At Central Area sites, post rainfall monitoring was undertaken in receiving waters at relevant upstream and downstream locations along the Brisbane River. Monitoring results met water quality investigation criteria.

In the Southern Area at Clapham Yard, post rainfall monitoring was triggered at Moolabin and Rocky Water Holes Creek on 12, 22 and 30 November. Post rainfall site inspections identified water quality was visually more turbid at upstream and downstream monitoring locations in the system, triggering in-situ water quality monitoring. Monitoring results on 12 and 22 November confirmed that turbidity at the downstream monitoring location in Moolabin Creek was 10% greater and TSS was more than 5mg/L than the upstream monitoring location. Inspections identified that water quality was visually more

turbid than usual throughout the systems, with external sources of sedimentation present in the immediate vicinity of the Project Works and associated nominated monitoring locations.

Additionally, Bureau of Meteorology weather records confirmed the rain events exceeded the design criteria for Type 2 controls therefore water quality monitoring met project requirements. The Clapham Yard's Erosion and Sediment Control (ESC) Plan is designed by suitably qualified person consistent with the Guidelines for Best Practice Erosion and Sediment Control (IECA 2008) as per Imposed Condition 18. The plan is regularly reviewed and updated by a suitably qualified person in ESC management. Actions pertaining to the maintenance of the ESC measures prior to predicted rain events and following rainfall had also been promptly addressed. See **Appendix A** (Table 10) and Section 3.32 and 3.35 for further details.

Routine monitoring was undertaken in the receiving waters of all TSD worksites in accordance with the Contractor's Water Quality Management Plan. The monitoring results reflect the condition of a broader catchment upstream from the worksites.

For RIS worksites, routine monitoring in receiving waters is undertaken biannually in accordance with the Water Quality Management Plan and was not undertaken during November.

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 | Yes | No | - Post-rainfall monitoring undertaken in accordance with WQMP. |
| Northern Area | Northern Portal | Yes | Yes | Yes | - Active surface water discharge met water quality investigation criteria. - Post rainfall and routine in-stream monitoring undertaken in accordance with WQMP. |
| Central Area | Albert Street | No | Yes | Yes | - Post-rainfall and routine in-stream monitoring undertaken in accordance with WQMP. |
| | Boggo Road | No | Yes | Yes | - Post-rainfall and routine in-stream monitoring undertaken in accordance with WQMP. |
| | Roma Street | No | Yes | Yes | - Post-rainfall and routine in-stream monitoring undertaken in accordance with WQMP. |
| | Woolloongabba | No | Yes | Yes | - Post-rainfall and routine in-stream monitoring undertaken in accordance with WQMP. |
| | Southern Portal | No | Yes | Yes | - Post-rainfall and routine in-stream monitoring undertaken in accordance with WQMP. |
| Southern Area | Clapham Yard | No | Yes | No | - Post-rainfall and routine in-stream monitoring undertaken in accordance with WQMP. |

2.2.4.2. Groundwater

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

Groundwater discharge occurred in the Central Area at Roma Street and Boggo Road worksites. Two groundwater discharges from October at Albert Street and Woolloongabba have been included in this report as the laboratory results were not available at the time of reporting. Groundwater discharge results exceeded the Project's water quality objectives (WQO's)² for total nitrogen, ammonia nitrogen, oxidised nitrogen, organic nitrogen, and dissolved oxygen. These results, however, are consistent with the receiving environment baseline monitoring pre-construction data.

| Groundwater Quality Monitoring | | | |
|--------------------------------|------------------------------|-----------|---|
| Area | Worksite | Discharge | Comments |
| Mayne Area | Mayne Yard North | No | - No groundwater discharges. |
| Northern Area | RNA/Exhibition | No | - No groundwater discharges. |
| | Northern Portal | No | - No groundwater discharges. |
| Central Area | Albert Street | Yes | - Groundwater discharge occurred in October and was reported in November. - Discharge of groundwater did not meet Project WQO's but was generally consistent with pre-construction conditions. |
| | Boggo Road / Southern Portal | Yes | - Groundwater discharge (dewatering). - Discharge of groundwater did not meet Project WQO's but was generally consistent with pre-construction conditions. |
| | Roma Street | Yes | - Groundwater discharge (dewatering). - Discharge of groundwater did not meet Project WQO's but was generally consistent with pre-construction conditions. |
| | Woolloongabba | Yes | - Groundwater discharge occurred in October and was reported in November. - Discharge of groundwater did not meet Project WQO's but was generally consistent with pre-construction conditions. |
| Southern Area | Clapham Yard | No | - No groundwater discharges. |

2.2.5. Erosion and Sediment Control

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

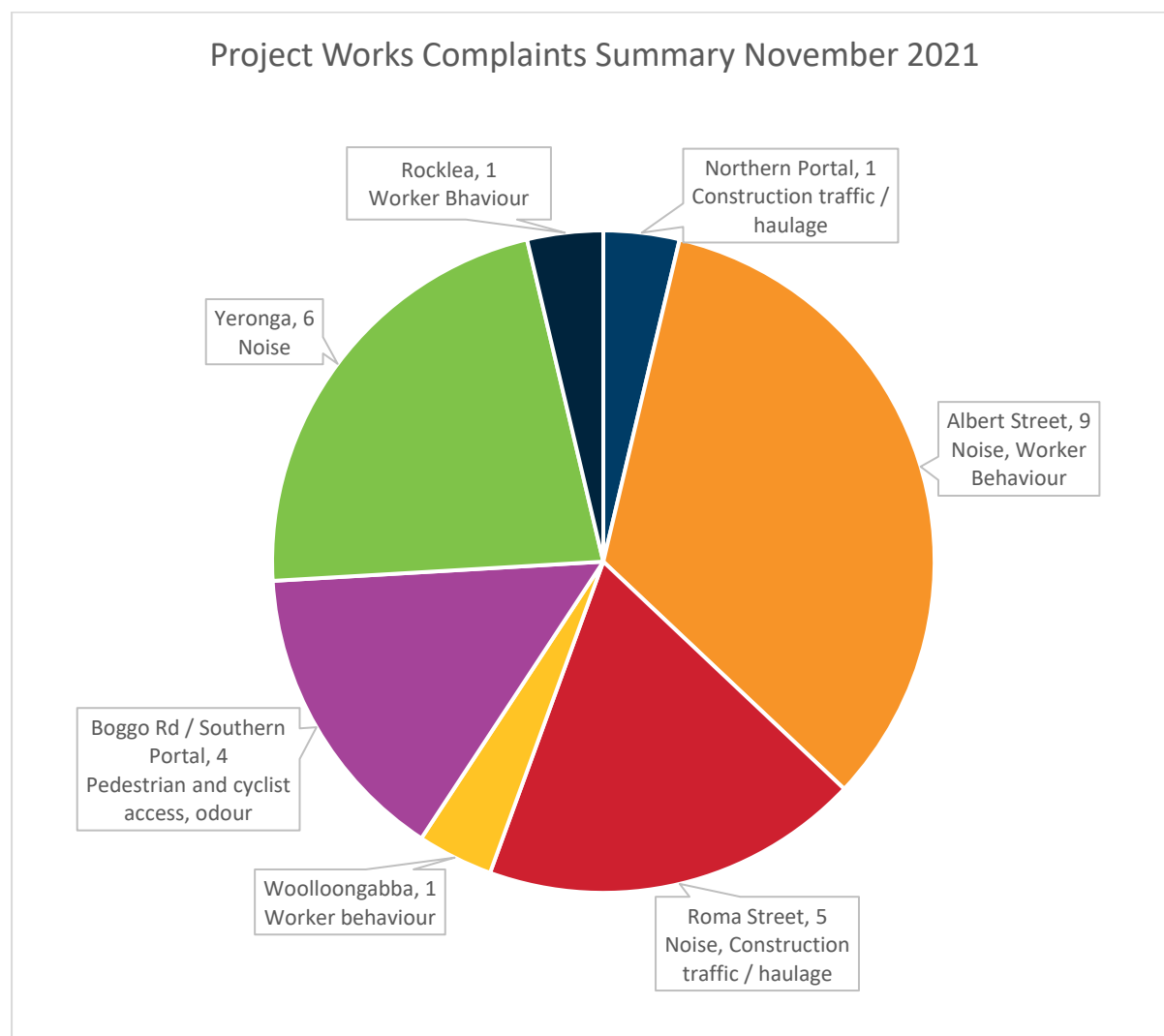
² The Brisbane River Estuary environmental values and water quality objectives (Basin no 143 – mid-estuary) in the Environmental Protection (Water) Policy 2009.

2.3. Complaints Management

A total of 27 complaints were received during the month, of which all were related to Project Works.

RIS works received 8 complaints this month related to works at Yeronga and Rocklea worksites. For further details on close-out of complaints refer to **Appendix A**, Table 3.

TSD activities received 19 complaints related to Project Works at Albert Street, Roma Street, Woolloongabba and Boggo Road/Southern Portal worksites. Of these, 12 complaints were related to noise from works occurring in non-standard hours from the Albert Street and Roma Street sites. The Project Works complaints summary for the month is provided in the following chart.

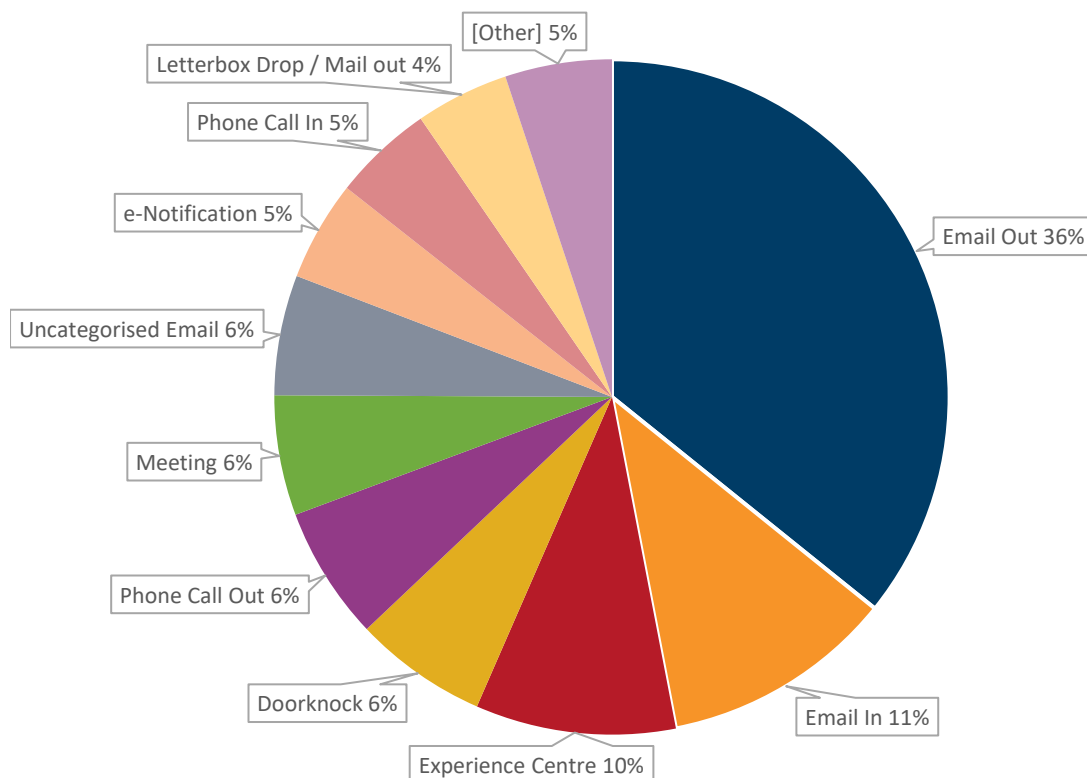


Where attended noise monitoring was undertaken in response to a complaint, the contractor confirmed on all occasions that works undertaken at the time of the complaint adhered to project requirements. In some instances, previous attended noise monitoring data, representative of the relevant construction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

To close out a complaint, the monitoring data is reviewed (where applicable) against compliance with the CEMP, site environmental management plans and permits, and checks that required community notification has taken place. Contractors have also confirmed that planned mitigation to reduce the impact was implemented. This is reviewed together to verify if project requirements have been met. For further details on close-out of complaints refer to **Appendix B**, Table 11.

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

Stakeholder Engagement November 2021



2.4. New Upcoming Project Works

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

| Area | New planned works in the coming months |
|---------------|---|
| Mayne Area | Mayne Yard North – <ul style="list-style-type: none"> RSS walls for retaining walls for Tripod Bridge; Graffiti Removal Facility services on eastern site; Crew Change Building internal walls and fit out; Crew Change car park; Signalling and pneumatic foundation construction Road 5-3 construction; and Earthing and bonding to commence when tamping completed on Roads 11-6. |
| Northern Area | Northern Corridor – <ul style="list-style-type: none"> Retaining wall RW260; Victoria Park Feeder Station bulk excavation; and OHLE foundations installation. RNA/Exhibition – <ul style="list-style-type: none"> RSS wall for retaining wall RW210; Grated FRP drains; Rock anchors under future pedestrian bridge BR29; OHLE foundations; and, |

| Area | New planned works in the coming months |
|---------------|--|
| | <ul style="list-style-type: none"> Drainage works, southern section. Northern Portal – <ul style="list-style-type: none"> Removal of TBM component removal from site to commence in December 2021; and Breakthrough of TBM #2 in mid-December 2021. |
| Central Area | Roma Street – <ul style="list-style-type: none"> Cavern eastern headwall formwork, reinforcement and concrete pouring (FRP) works to commence; and Services building FRP works to commence. Albert Street – <ul style="list-style-type: none"> Lot 1 – third row of props to be installed in December 2021 and bench blast to occur in December 2021; Lot 2 – commence bench blasting in January 2022; and Lot 3 – Excavation and retention progressing. Woolloongabba – <ul style="list-style-type: none"> TBM backups and conveyor systems to be completely removed by late-December 2021; and Jump form lift 15 scheduled for early 2022, 2 lifts will remain in the New Year 2022. Boggo Road – <ul style="list-style-type: none"> Track slab works scheduled for December. First precast pour (mezzanine level) scheduled for early-December 2021. Southern Portal – <ul style="list-style-type: none"> Relieving slab install scheduled for early-December 2021; Micro tunnelling for sewer and stormwater to recommence in December 2021; SCAS 27-28 November – Freight flyover underpinning works, signaling cable haul & commissioning, removal of OHLE on fork line, and, Christmas SCAS 18 December 2021 – 4 January 2022. |
| Southern Area | Yeronga Station – <ul style="list-style-type: none"> Platform coping, tactile and rubber finger installation; Platform slab concrete pours; and Platform 1 retaining wall construction and backfilling. Clapham Yard – <ul style="list-style-type: none"> Continue earthworks scope; Drainage works; Office extensions; Piling for retaining walls RW260 and RW265; Decommissioning of existing sidings; and Vegetation removal in Moolabin Creek under Riverine Protection Permit. |

2.5 Non-Compliance Events

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

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

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

Appendix A RIS Monthly Report

Monthly CGCR Report – November 2021

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

Table of Contents

| | | |
|---------------------|---|-----------|
| 1 | Progress Summary - Relevant Project Works | 3 |
| 2 | Complaints | 5 |
| 3 | Environmental Monitoring Results | 8 |
| 3.1 | Acoustics | 8 |
| 3.2 | Air Quality | 12 |
| 3.3 | Water Quality | 17 |
| 4 | Compliance Review | 22 |
| 4.1 | Non-Compliance Events | 22 |
| 4.2 | CEMP Compliance | 22 |
| Attachment 1 | CGCR Non-Compliance Event Report (if required) | 23 |
| Attachment 2 | Monitoring Locations – Noise | 24 |
| Attachment 3 | Monitoring Locations – Vibration | 25 |
| Attachment 4 | Monitoring Locations – Air Quality | 26 |
| Attachment 5 | Monitoring Locations – Surface Water | 29 |

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 | <ul style="list-style-type: none"> • Mayne Yard North <p>Crew Change Building roofing completed, glazing and cladding continues, internal fit-out commenced</p> <p>Graffiti Removal Facility – FRP scope completed, structural steel installation commenced</p> <p>Yard – Roads 6-11 completed and Queensland Rail tamper currently being on site for final alignment, in-ground services for Roads 2-5 nearing completion</p> <p>Pier Protection Ferny Grove Flyover (RC14) – FRP scope nearing completion</p> <p>CRR Lines – wick drains and preload to southern embankment of BR08 has commenced</p> <p>Yard – Ballast, Sleeper and Rail Placement Road 6–11 completed, OHLE Structure Installation ongoing, Queensland Rail Tamper has currently completed roads 11-9 and working on Roads 8-6, driver platform installation nearing completion.</p> |
| Northern Area | <ul style="list-style-type: none"> • RNA <p>Pier Protection at O'Connell Terrace RC21 completed</p> <p>Drainage scope through RNA (Stage 1) continuing including Sneyd Street drainage RW210-2 commenced.</p> <ul style="list-style-type: none"> • Northern Corridor <p>Major SCAS (EXT #08) successfully completed with large scope for Exhibition Stage 2 switch completed</p> <p>Rock excavation for western corridor completed with only detailed rock excavations for concrete lined drains pending</p> <p>Retaining Wall RW260 FRP nearing completion.</p> |
| Southern Area | <ul style="list-style-type: none"> • Yeronga Station <p>Installation of Rail Overpass structure from Platform 1 to Fairfield Road</p> <p>Installation of Platform 1 and 2 lift shaft structural steel work and precast</p> <p>Completion of 3no. platform concrete slab pours</p> <p>Completion of Platform 2 inground hydraulics</p> <p>Completion of rail stormwater UTX</p> <p>Commencement of Platform 1 blockwork retaining wall</p> <ul style="list-style-type: none"> • Clapham Yard <p>Earthworks continued</p> <p>Drainage commenced</p> |

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 | <ul style="list-style-type: none"> • Mayne Yard North RSS walls RW110/120/125 for Tripod Bridge BR11/13 to commence Graffiti Removal Facility services on Eastern site (Yard side) Crew Change Building internal walls and fit-out for handover Crew Change car park Yard – signalling and pneumatic foundation construction, Road 5–3 construction, Earthing and Bonding to commence once tamping is completed on Roads 11–6 |
| Northern Area | <ul style="list-style-type: none"> • RNA Commence grated FRP drains through RNA corridor Commence rock anchors under future pedestrian bridge BR29 (adjacent to O’Connell Terrace) Commence OHLE foundations through corridor Commence RSS wall RW210 Continue FRP BR43 scope viaduct post-tensioning FRP Continue drainage at Southern section (Stage 1). <ul style="list-style-type: none"> • Northern Corridor Complete retaining wall RW260 Commence Victoria Park Feeder Station bulk excavation Commence OHLE foundations through corridor. |
| Southern Area | <ul style="list-style-type: none"> • Yeronga Station Commencement of platform coping, tactile and rubber finger installation Continuation of platform slab concrete pours Continuation of Platform 1 retaining wall construction and backfilling <ul style="list-style-type: none"> • Fairfield Station Fairfield Station dual gauge lowering works <ul style="list-style-type: none"> • Clapham Yard Continue earthworks scope Commence office extensions Commence drainage Commence piling for retaining walls RW260 and RW265 Commence FRP scope of retaining walls Decommissioning of existing sidings. |

2 Complaints

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

Table 3: Summary of Complaints

| Date Received | Location | Issue | Activity source of the concern | Period | Unity Response | Status |
|---------------|-----------------|----------------------|---------------------------------|-------------|---|--------|
| 03/11/21 | Yeronga | Noise | Noise Extended Hours of Work | October 21 | <p>The Stakeholder contacted the project team regarding construction noise from Yeronga Station works.</p> <p>The Stakeholder concerns pertained to night and early hours of works that occurred during October.</p> <p>The project team contacted the stakeholder to discuss the recent works and provide them with the details of the upcoming works.</p> <p>The project team advised the stakeholder that some of the out of hours works were related to concrete pours that were required to occur during approved Track Occupation periods (after last night / before first train) and therefore could not be scheduled during standard work hours.</p> | Closed |
| 04/11/21 | Rocklea | Construction Traffic | Parking of Heavy Vehicles | November 21 | <p>The complaint pertained to the temporary parking of a heavy vehicle associated with OHLE works across a driveway.</p> <p>The project team investigated the complaint and confirmed that the body truck was parked in the driveway for a short duration while the traffic control team adjusted vehicles within the traffic control zone in the station car park to perform the OHLE foundation works.</p> | Closed |
| 05/11/21 | Northern Portal | Construction Traffic | Construction Access | November 21 | <p>The complaint pertained to temporary traffic set up in Victoria Park to support an extended possession in the Northern Rail Corridor which resulted in debris left on shared access routes</p> <p>The complaint was investigated. The investigation confirmed that the use of Victoria Park by heavy vehicles was approved by the relevant authorities. The investigation noted that there were non-Project related sources of debris on the shared access routes and that the Project street sweeper was on a regular circuit to maintain the main access into Victoria Park.</p> | Closed |
| 08/11/21 | Yeronga | Noise | Noise Extended Hours of Work | November 21 | <p>The complaint pertained to an unusual construction noise having been generated for approximately 10 minutes at night-time.</p> <p>The complaint was received after the night works had been completed and therefore the Project Team could not carry out Noise monitoring to validate the noise emissions.</p> <p>Following investigation into the complaint the exact source of the noise could not be determined.</p> <p>The project team requested from the site supervisor they refresh the night-shift crews on proximity of residents to the works and the potential disruptions these may cause at night.</p> <p>The project team also presented a potential at home mitigation option to the stakeholder. The stakeholder took a potential at home mitigation option under advisement.</p> | Closed |

| Date Received | Location | Issue | Activity source of the concern | Period | Unity Response | Status |
|---------------|----------|-------|--------------------------------|-------------|---|--------|
| 10/11/21 | Yeronga | Noise | Noise Extended Hours of Work | November 21 | <p>Stakeholder emailed to complained about noise being generated from the Yeronga Station commuter car park.</p> <p>The complaint was received after the night works had been completed and therefore the project team could not carry out Noise monitoring to validate the noise emissions.</p> <p>As a resolution to the complaint the Project Team sought to relocate the laydown away from the residents.</p> <p>The Project Team received approval to relocated the laydown on 16 November.</p> | Closed |
| 11/11/21 | Yeronga | Noise | Noise Extended Hours of Work | November 21 | <p>The stakeholder contacted the project team to advised them of construction noise the night prior.</p> <p>The complaint was received after the night works had been completed and therefore the Project Team could not carry out Noise monitoring to validate the noise emissions.</p> <p>The activity was confirmed to be the use of a vacuum truck which was used to clean up the rail tracks prior to handing the network back to Queensland Rail as per the requirements of the approved rail possession.</p> <p>The Stakeholder enquired as to whether mitigation of the noise levels at source was achievable (e.g. using portable noise blankets).</p> <p>The environment team reviewed the equipment and advised the project team that due to the size and height of the truck noise mitigation at source was not achievable with the use of the portable noise blankets.</p> | Closed |
| 16/11/21 | Yeronga | Noise | Noise Extended Hours of Work | November 21 | <p>Stakeholder emailed to complained about noise being generated from the Yeronga Station commuter car park.</p> <p>The complaint was received after the night works had been completed and therefore the project team could not carry out noise monitoring to validate the noise emissions.</p> <p>As a resolution to the complaint the Project Team sought to relocate the laydown away from the residents.</p> <p>The Project Team received approval to relocate the laydown on 16 November.</p> | Closed |

| Date Received | Location | Issue | Activity source of the concern | Period | Unity Response | Status |
|---------------|----------|-------|--------------------------------|-------------|--|--------|
| 25/11/21 | Yeronga | Noise | Noise Standard Hours of Work | November 21 | <p>The stakeholder contacted the project team to complain about the use of vacuum truck on Lake Street throughout the day and the associated noise and vibration.</p> <p>The Stakeholder was advised that the use of the vacuum truck was likely to continue.</p> <p>The project team contacted the site team who confirmed that a vacuum truck had been used throughout the day to support FRP works at the station. As a result of the recent rain, excavations such as the one for the new lift shaft had filled with water and was required to be dewatered and kept dry to progress the concreting works.</p> <p>The project team confirmed that a vacuum truck would still be in use in the evening. The Environment Manager therefore mobilised to site to carry out noise monitoring.</p> <p>Upon arrival on site the Environment Manager confirmed that a vacuum truck was in operation on Lake Street on the lowest (quietest) setting possible.</p> <p>The Environment Manager undertook attended outdoors noise monitoring at the resident's property to validate the noise emissions of the truck at lowest and highset settings.</p> <p>Following the monitoring the resident confirmed that the lowest setting on the vacuum truck was acceptable.</p> <p>The Environment Manager instructed the operator and the site supervisor to continue the dewatering operations using the lowest setting on the truck.</p> <p>The dewatering operations were completed by 11pm.</p> <p>The Environment Manager also discussed potential at home mitigation options with the stakeholder.</p> <p>The stakeholder informed they would take at home mitigation options under advisement.</p> | Closed |

3 Environmental Monitoring Results

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

3.1 Acoustics

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

3.1.1 Noise Monitoring

Attended noise monitoring was triggered based on the predictive noise assessments for the Relevant Project Works during the reporting period for:

- Lifting activities at Yeronga Station using a 1,000t crane located on Fairfield Road during extended hours of works under an approved road closure.
- Concrete pour activities at Yeronga Station during extended hours of works under an approved road closure.

Complaint-based noise monitoring because of Project Works was triggered at Yeronga, some complaints were received after the Relevant Project Works were completed and therefore monitoring was not carried out.

One complaint-based monitoring event was carried out at Yeronga to validate the noise emissions of the vacuum trucks.

The noise monitoring results are presented in Table 4.

3.1.2 Noise monitoring Results

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

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

The first performance goal (herein referred to as Performance Goal 1), is determined as per Condition 11(a), Table 2, LA₁₀ noise goals (for intermittent noise sources) or LA_{eq} noise goals (for continuous noise sources).

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

There is no second performance goal for continuous noise sources.

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

Indeed, if the Project Works are authorised to proceed under Imposed Condition 10 and the Directly Affected Person (DAP) engagement process has occurred as per Imposed Condition 11 (c), then Project Works that are predicted to generate noise above the noise goal + 20dBA can proceed.

The purpose of these performance goals is to inform:

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

The community, stakeholders, and DAP consultation and engagement process which is based on the outcomes of the predictive modelling is presented in the Noise and Vibration Management sub-plan (CEMP sub-plan) with a focus on Attachment 1 and 2 of the sub-plan.

Table 4: Summary of Noise Monitoring Data

| Location and Receiver Type Details | Type of Monitoring | Working Hours | 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 |
|--|-----------------------------------|--|--------------|--|-----------------------------------|--|---|--|---------------------------------|-------------------------------|---|---|
| Residential 7 Cowper St Yeronga | Attended Outdoors ¹ | Extended Hours of Works Monitoring undertaken Sunday 14 November 2021 11:55 | Intermittent | Construction Monitoring at Sensitive Places Model Verification | LA ₁₀ 71 (outdoors) | Extended Work Hours 52 (Outdoors) (42dBA + 10dBA façade reduction) ² | Extended Work Hours 72 (Outdoors) (52 + 20dBA) | 63(outdoors) | 61 (outdoors) | Yes Standard | Extended Work Hours Exceedance of Performance Goal 1 No Exceedance of Performance Goal 2 | 1,000 T crane Yeronga station For interpretation, please refer to 3.1.4.1 |
| Residential 1 Christensen St Yeronga | Attended Outdoors ¹ | Extended Hours of Works Monitoring undertaken Tuesday 16 November 2021 19:10 | Intermittent | Construction Monitoring at Sensitive Places Model Verification | LA ₁₀ 70 (outdoors) | Extended Work Hours 52 (Outdoors) (42dBA + 10dBA façade reduction) ² | Extended Work Hours 72 (Outdoors) (52 + 20dBA) | 65(outdoors) | 64 (outdoors) | Yes Standard | Extended Work Hours Exceedance of Performance Goal 1 No Exceedance of Performance Goal 2 | Agi Truck Yeronga station For interpretation, please refer to 3.1.4.1 |
| Residential 2 Christensen St Yeronga | Attended Outdoors ¹ | Extended Hours of Works Monitoring undertaken Tuesday 16 November 2021 19:44 | Intermittent | Construction Monitoring at Sensitive Places Model Verification | LA ₁₀ 72 (outdoors) | Extended Work Hours 52 (Outdoors) (42dBA + 10dBA façade reduction) ² | Extended Work Hours 72 (Outdoors) (52 + 20dBA) | 67(outdoors) | 65 (outdoors) | Yes Standard | Extended Work Hours Exceedance of Performance Goal 1 No Exceedance of Performance Goal 2 | Concrete Pour Yeronga station For interpretation, please refer to 3.1.4.1 |
| Residential 12 Killarney St Yeronga | Attended Outdoors ¹ | Extended Hours of Works Monitoring undertaken Tuesday 25 November 2021 18:50 | Continuous | Complaint Response | LA _{eq} 64 (outdoors) | Extended Work Hours 60 (Outdoors) (35dBA + 25dBA façade reduction) ² | Not applicable to continuous noise sources | Not applicable to continuous noise sources | 58 (outdoors) | Yes Standard | Extended Work Hours No Exceedance of Performance Goal 1 | Vacuum Truck used for dewatering (low settings) Yeronga station For interpretation, please refer to 3.1.4.1 |
| Residential 12 Killarney St Yeronga | Attended Outdoors ¹ | Standard Hours of Works Monitoring undertaken Tuesday 25 November 2021 19:15 | Continuous | Complaint Response | LA _{eq} 64 (outdoors) | Extended Work Hours 60 (Outdoors) (35dBA + 25dBA façade reduction) ² | Not applicable to continuous noise sources | Not applicable to continuous noise sources | 67 (outdoors) | Yes Standard | Extended Work Hours Exceedance of Performance Goal 1 | Vacuum Truck (high settings) For interpretation, please refer to 3.1.4.1 |

- Note (1) - Monitoring Method
 - Note 2 of Imposed Condition 11 Table 2 states *Where internal noise levels are unable to be measured or monitored, the typical noise reductions presented in Guideline Planning for Noise Control, Ecoaccess, DEHP, January 2017 (PFNC) apply.*
 - The monitoring was undertaken to validate the model therefore external noise measurements are appropriate to determine the impact of construction noise.
- Note (2) – Façade Attenuation
 - Note 2 of Imposed Condition 11 Table 2 states *Where internal noise levels are unable to be measured or monitored, the typical noise reductions presented in Guideline Planning for Noise Control, Ecoaccess, DEHP, January 2017 (PFNC) apply.*
 - The PFNC guideline can no longer be accessed. The Department of Environment and Science (DES) website still states this guideline is under review and is yet to release an alternative guideline
 - Former revisions of the PFNC 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.

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

3.1.3 Vibration Monitoring

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

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 | Maximum predicted vibration Level (mm/s) | Maximum recorded vibration Level (mm/s) | Vibration goal for receiver (mm/s) | Exceedance of vibration limit? | Comments |
|--------------|-------------------------|--------------|-------------------------------|---|-----------------------|--|---|------------------------------------|--------------------------------|--------------|
| Nil required | Nil required | Nil required | Nil required | Nil required | Nil required | Nil required | Nil required | Nil required | Nil required | Nil required |

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

3.1.4 Interpretation

3.1.4.1 Noise Monitoring²

3.1.4.1.1 1,000T Crane Lift Yeronga

Noise monitoring of noise intensive activities associated with lifting activities at Yeronga Station during an approved rail possession and road closure was undertaken externally. Monitoring was carried out at the sensitive place identified as being likely to experience the highest noise levels during the works. The sensitive place was identified as residential DAPs and comprises of a timber house.

Monitoring was undertaken during standard construction hours (Saturday day) to inform whether the works were likely to exceed noise goals + 20dBA on Sunday day (non-standard working hours).

The measured LA10 readings were compliant with the Imposed Conditions for works during standard hours. The LA10 readings exceeded the noise goal + 20dBA for works during non-standard working hours.

The works were however authorised to proceed under Imposed Condition 10 as they were carried out during extended works hours (approved road possession and rail possession). DAP engagement had also occurred with the level of consultation as per the requirements of Imposed Condition 11 (c).

Finally, there were no noise complaints received during the execution of the works.

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

3.1.4.1.2 Concrete Pour Operations - Yeronga

Noise monitoring of concrete pour operations using Agi trucks and line pumps at the Yeronga Station during extended working hours was undertaken externally.

Noise monitoring was carried out at the façade of the closest likely affected sensitive place. The sensitive places were identified as a residential DAP comprising of townhouses complexes.

Monitoring was undertaken during extended working hours to inform whether the works were exceeding the noise goals + 20dBA.

The measured LA₁₀ readings were compliant with the Imposed Conditions for works during extended working hours.

The works were authorised to proceed under Imposed Condition 10 as they were carried out during extended works hours (approved road possession and rail possession). DAP engagement had also occurred with the level of consultation as per the requirements of Imposed Condition 11 (c).

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

3.1.4.1.3 Dewatering Operations using a Vacuum Truck - Yeronga

Noise monitoring of dewatering operations using a vacuum truck at the Yeronga Station during extended working hours was undertaken externally as a response to a noise complaint during standard working hours.

The environmental manager offered to carry out the monitoring indoors to validate the façade attenuation of the house, however the offer was not accepted

The monitoring was undertaken in the backyard of the affected resident. The sensitive place is a well-maintained timber house with double-glazed windows, which were observed and confirmed to be closed at the time of the monitoring.

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

Two rounds of monitoring were carried out. The first round of monitoring was carried out whilst the vacuum extraction was set on the lowest possible setting of the truck to replicate the way the extraction would be carried out during extended hours.

The second round of monitoring was carried out whilst the vacuum extraction was set on the highest possible setting of the truck to replicate the way the extraction was alleged to have occurred during standard working hours.

When vacuum extraction was set on the lowest possible setting of the truck, the measured LAeq readings did not exceed the noise goal.

When vacuum extraction was set on the highest possible setting of the truck, the measured LAeq readings exceeded the noise goal by 7dBA.

The environment manager received feedback from the stakeholder that at the time of the monitoring, that when vacuum extraction was set on the lowest possible setting of the truck, it was noticeably quieter than when the vacuum extraction was set on the highest possible setting.

Upon completion of the monitoring and discussions with the stakeholder (at ca. 8.00pm), the environment manager instructed the vacuum truck operator and the site supervisor to continue dewatering on the lowest possible extraction setting of the truck, unless necessary to increase the extraction setting.

The site supervisor advised this was achievable. The following morning the environment manager was informed that the vacuum truck completed its dewatering operation around 10.30pm and was demobilised from site at 11.00pm.

DAP engagement had also occurred with the stakeholder on numerous occasions preceding their complaint.

The works were authorised to proceed under Imposed Condition 10 as they were carried out during extended works hours during an approved road possession.

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

3.2 Air Quality

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

Visual monitoring was undertaken during routine environmental inspections. A total of 17 inspections were undertaken by the environment team across Mayne Yard, RNA Showgrounds, Yeronga Station, Clapham Yard, and the Northern Corridor.

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

Table 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 | Active |
| TSP / PM ₁₀ Monitor | Mayne Yard (Eastern Air Shed) | Mayne Yard | 23 April 2020 | Active |
| TSP / PM ₁₀ Monitor | Clapham Yard (Eastern Air Shed) | Clapham Yard | 9 August 2021 – New Location | Active |
| TSP / PM ₁₀ Monitor | RNA (Western Air Shed) | RNA | 25 August 2020 | Active |

3.2.1 Dust results

As passive dust deposition gauges are analysed monthly, results span from 11 October 2021 to 10 November 2021.

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

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 Abbotsford Rd (E Mayne) (mg/m ² /day) | AQ-06– Clapham Yard (mg/m ² /day) | AQ-07– Yeronga Station (mg/m ² /day) |
|------------------------------------|--|--|--|---|
| 120 | 40 | 40 | 17 | 50 |
| Total Rainfall during Period | 76.6 | 76.6 | 148 | 148 |

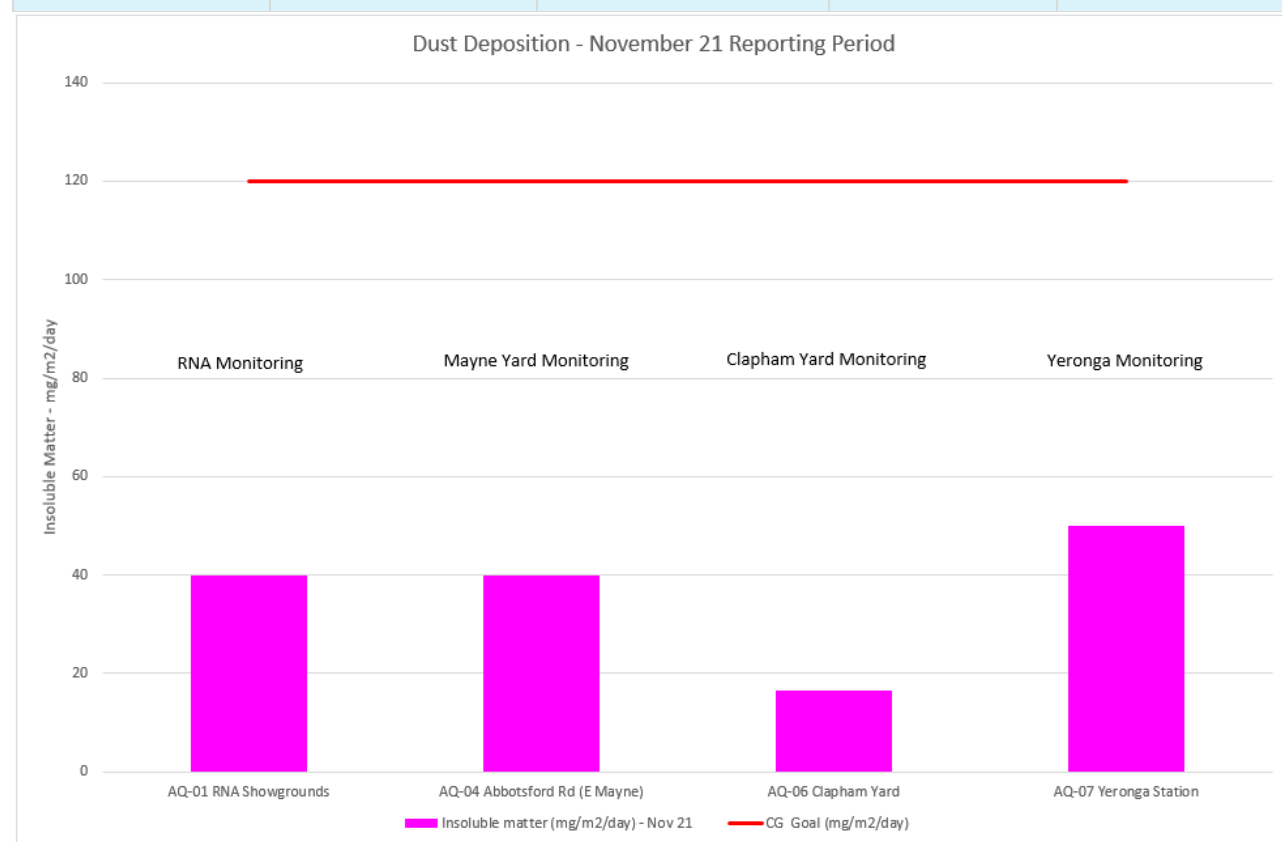


Figure 1 Air Quality Monitoring (Deposited Dust) Results

3.2.2 Particulates results

3.2.2.1 Air Quality Monitoring Stations

Unity had three (3) active air quality monitoring stations set up for the reporting period as detailed in Table 6.

3.2.2.2 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 µg/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 50 µg/m³ (over an averaging period of 24 hours) the project must aim to achieve under Imposed Condition 13(a).

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

The results are represented in the below figures.

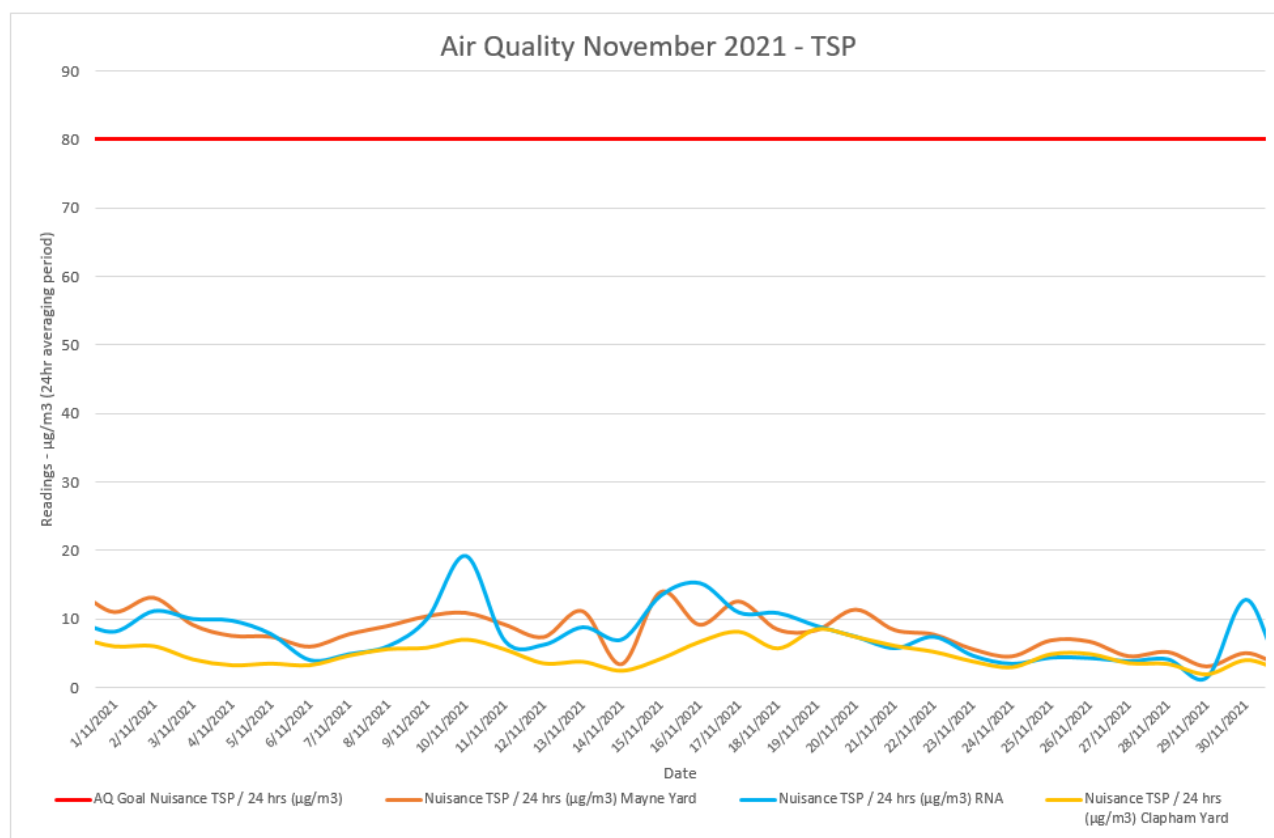


Figure 2 Air Quality Monitoring (TSP) Results

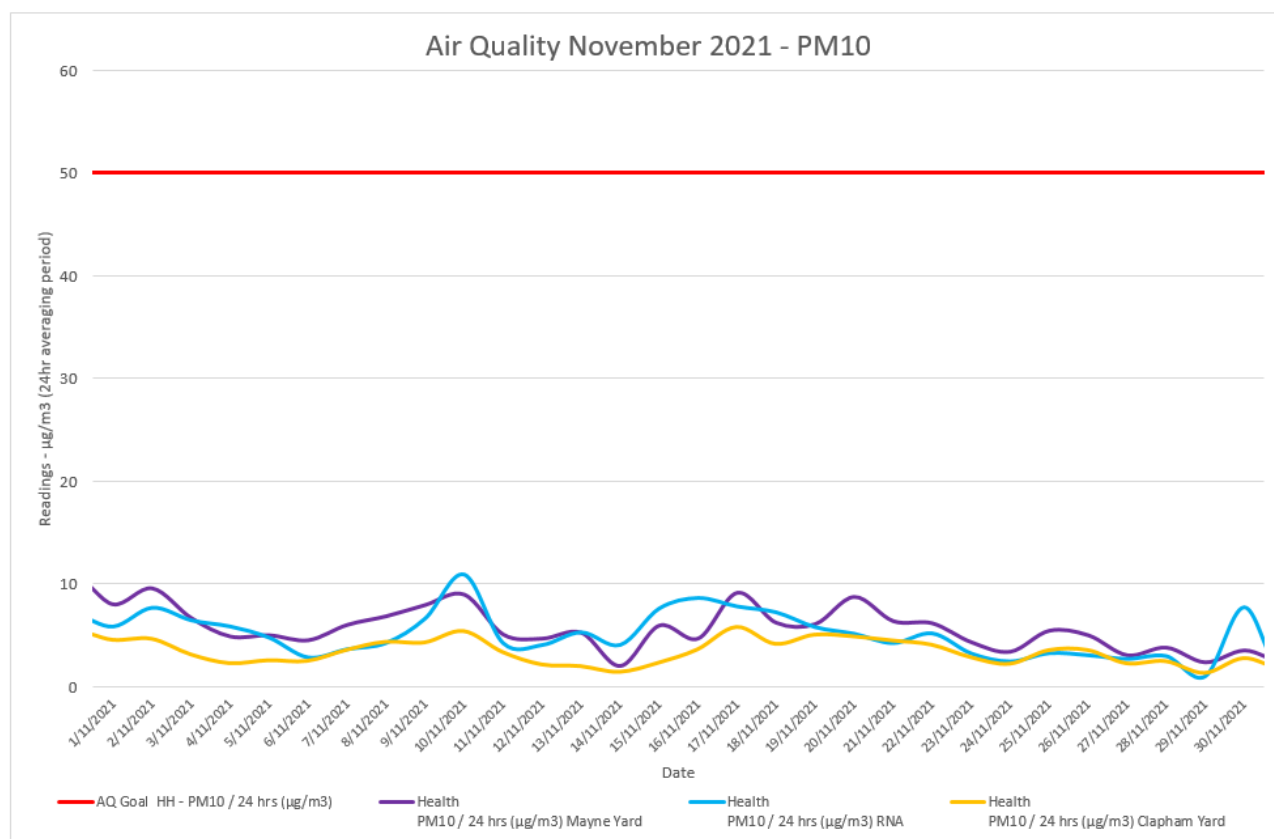


Figure 3 Air Quality Monitoring (PM₁₀) Results

3.2.2.3 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 has 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 were 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 (Eastern Air Shed) | 23 April 2020 | Not yet decommissioned | Period 1 (to 23 April 2021) 358 over 365 days Period 2 (starting 24 April 2021) 221 over 221 days | Period 1 98% over 365 days Period 2 100% Over 221 days | Applicable for Period 1 Data capture met minimum data capture requirements Not Applicable for Period 2 Data capture has not yet met the 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 (starting 12 June 2021) 172 over 172 days | Period 1 86% over 365 days Period 2 100% Over 172 days | Applicable for Period 1 Data capture met minimum data capture requirements Not Applicable for Period 2 Data capture has not yet met the minimum data capture requirements |
| TSP / PM ₁₀ Monitor | Clapham Yard (Eastern Air Shed) | 1 February 2021 | Not yet decommissioned | 265 (over 303 days) | 87% over 303 days | Not Applicable 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 | RNA | Clapham Yard |
|-----------------------|----------------------|----------|---------------------|----------------------|----------------------|----------------|
| TSP | 90 µg/m ³ | Period 1 | 8 µg/m ³ | 11 µg/m ³ | 18 µg/m ³ | Not applicable |
| | | Period 2 | - | Not applicable | Not applicable | - |
| PM ₁₀ | 25 µg/m ³ | Period 1 | 5 µg/m ³ | 7 µg/m ³ | 11 µg/m ³ | Not applicable |
| | | Period 2 | - | Not applicable | Not applicable | - |

3.2.3 Interpretation

During the reporting period:

- None of the particulate results exceeded their relevant goals
- There was no evidence of dust being generated and leaving the site boundaries
- There was no complaint received associated with air quality concerns.

The RIS scope of works has met the project outcomes set out by the CGCR and OEMP.

3.3 Water Quality

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

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

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

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

Water quality monitoring to demonstrate compliance with Condition 15(b) and Condition 18 was triggered. The rain events recorded during the reporting period at Mayne Yard and Clapham Yard had the potential to result in run-off being generated from these two active worksites.

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

3.3.1 Rainfall Records

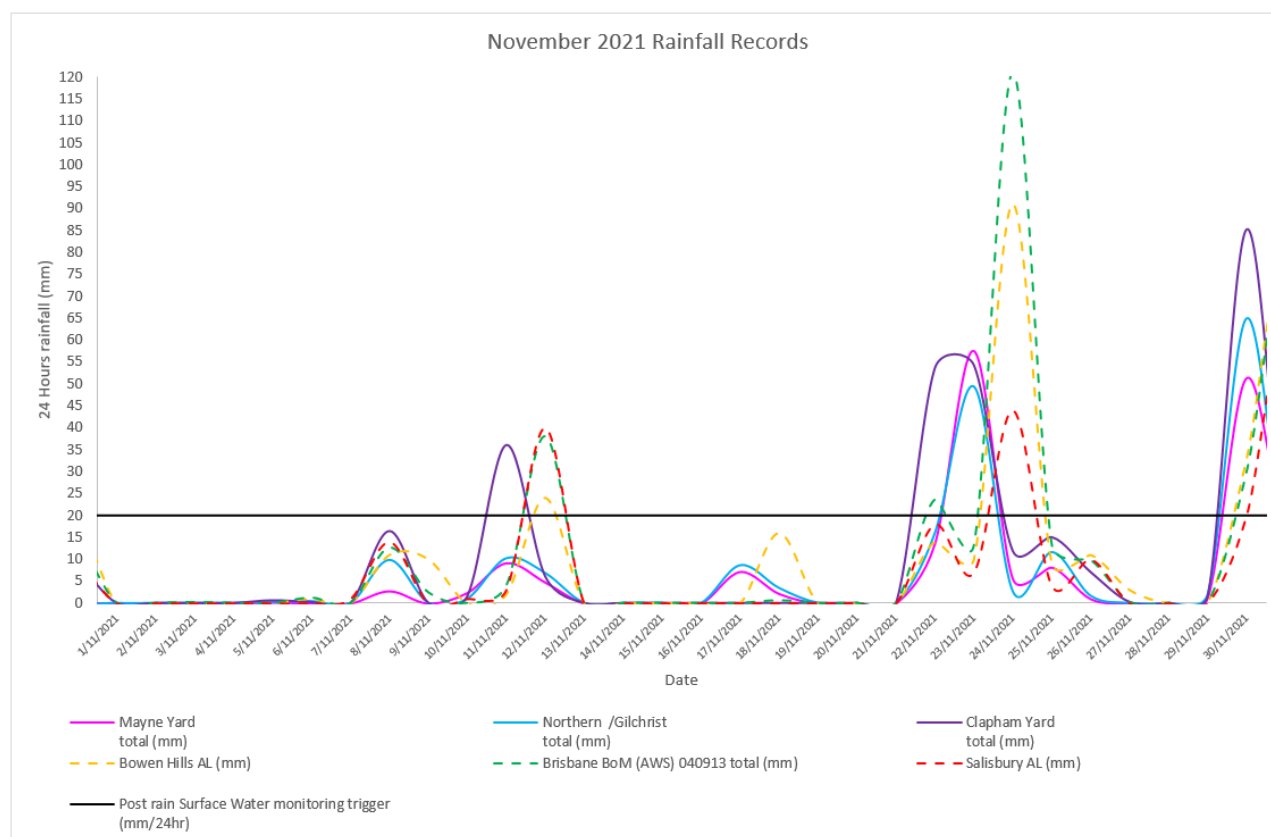


Figure 4 Rainfall Records

3.3.2 Surface Water Discharge Monitoring / Post Rainfall Monitoring Results

Post rainfall monitoring is triggered typically following any rainfall event exceeding 20 to 25 mm over 24 hours, however, storm events during the high-risk period of the year (November to March) of lesser amounts but of a higher intensity may cause run-off which would also trigger post-rain monitoring consistent with the CEMP.

In-situ post rainfall monitoring was triggered during the reporting period as follows:

- Clapham Yard:
 - 11 November 2021 (36 mm of rain in 24 hours), and
 - 22-23 November 2021 (107.8 mm of rain in 48 hours) and
 - 30 November 2021 (85.2 mm of rain in 24 hours)

In-situ post rainfall monitoring was not triggered during reporting at Mayne Yard despite two rain events exceeding 20mm of rain in a 24-hour period:

- 23 November 2021 (57.6 mm of rain in 24 hours) and
- 30 November 2021 (51.4 mm of rain in 24 hours)

Consistent with the CEMP, post rainfall inspections were carried out at Mayne Yard and Clapham Yard.

At Mayne Yard, it was identified that a significant amount of water was pooling on site either around Type 2 Controls or in excavations across the site. There was no evidence that the perimeter ESC measures had experienced overtopping or damage.

Mayne Yard trunk drainage is yet to be commissioned and therefore there is no possibility of stormwater run-off impacted by construction activities leaving site at this location.

Stormwater pit inlets connected to live underground drainage at Mayne Yard were all raised at a height more than the depth of water pooling on site and therefore no construction impacted run off could enter these inlet pits.

There was no evidence of stormwater run-off passively entering the creek and causing visual discoloration to Breakfast Creek in the immediate vicinity of the Project Works.

Photographic evidence was collected, and no in-situ water quality monitoring was carried out.

Table 10: Surface Water Discharge Monitoring Results

| Date | Location | Waterway | Tide | Discharge Criteria ³ | | | |
|----------|--------------|--|------|--|-------------------|---------------|---|
| | | | | Turbidity (NTU) Nil until Turbidity / TSS correlation achieved ⁴ | TSS (mg/L) <50 | DO (%) Nil | pH (pH Unit) Stable pH reading; and General sites: 6.5 – 8.5, or Wallum/Acidic Ecosystems: 5.0 – 7.0 |
| 12/11/21 | Clapham Yard | Moolabin Creek (SW-05 - upstream) | N/A | Field: 42 Lab: 21 | 11 | 77 | 6.5 |
| 12/11/21 | Clapham Yard | Moolabin Creek (SW-06 - downstream) | N/A | Field: 148 Lab: 62 | 66 | 74 | 7.1 |
| 12/11/21 | Clapham Yard | Rocky Water Holes Creek (SW-07 - upstream) | N/A | Field: 47 Lab: 23 | 7 | 80 | 6.4 |
| 12/11/21 | Clapham Yard | Rocky Water Holes Creek (SW-08 – downstream) | N/A | Field: 51 Lab: 27 | 17 | 81 | 6.7 |
| 22/11/21 | Clapham Yard | Moolabin Creek (SW-05 - upstream) | N/A | Field: 90 Lab: 26 | 14 | 86 | 5.9 |
| 22/11/21 | Clapham Yard | Moolabin Creek (SW-06 - downstream) | N/A | Field: 131 Lab: 42 | 30 | 82 | 6.8 |
| 22/11/21 | Clapham Yard | Rocky Water Holes Creek (SW-07 - upstream) | N/A | Field: 106.5 Lab: 37 | 12 | 88 | 6.5 |
| 22/11/21 | Clapham Yard | Rocky Water Holes Creek (SW-08 – downstream) | N/A | Field: 131 Lab: 40 | 25 | 85 | 6.3 |
| 01/12/21 | Clapham Yard | Moolabin Creek (SW-05 - upstream) | N/A | Field: 131.5 Lab: 72 | 333 | 98 | 7.4 |

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

⁴ Correlations are typically run on the source water (i.e. basins) not the receiving system where there is a dilution component of potentially diffuse sources of sediments from non-Project related areas. Due to the very limited amount of 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.

| Date | Location | Waterway | Tide | Discharge Criteria ³ | | | |
|----------|--------------|--|------|--|-------------------|---------------|---|
| | | | | Turbidity (NTU) Nil until Turbidity / TSS correlation achieved ⁴ | TSS (mg/L) <50 | DO (%) Nil | pH (pH Unit) Stable pH reading; and General sites: 6.5 – 8.5, or Wallum/Acidic Ecosystems: 5.0 – 7.0 |
| 01/12/21 | Clapham Yard | Moolabin Creek (SW-06 - downstream) | N/A | Field: 145 Lab: 24 | 13 | 97 | 7.8 |
| 01/12/21 | Clapham Yard | Rocky Water Holes Creek (SW-07 - upstream) | N/A | Field: 104 Lab: 40 | 20 | 88 | 6.7 |
| 01/12/21 | Clapham Yard | Rocky Water Holes Creek (SW-08 – downstream) | N/A | Field: 119 Lab: 41 | 17 | 92 | 7.1 |

3.3.3 Groundwater Discharge Monitoring Results

Groundwater discharge monitoring was not triggered during the reporting period.

3.3.4 Routine Surface Water Monitoring Results

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

3.3.5 Interpretation - Moolabin and Rocky Water Holes Creeks

The post rainfall monitoring events identified that water quality was visually more turbid throughout the systems at all monitoring locations.

TSS results at the downstream monitoring location were more than 10% greater than the upstream results following the 11 and 22-23 November rainfall events.

The TSS results difference between the upstream and downstream results were also greater than 5mg/L.

Consistent with Table 2 of the Waterways and Water Quality Management subplan when TSS results downstream of the Project Works exhibit of change of 5mg/L or 10% increase (whichever is the greatest) further investigation is required to ascertain whether this change in water quality is related to released water from the Project Works.

Weather records confirmed the 11 and 22-23 November rainfall events exceeded the design criteria (4-EY for Type 2 ESC measure and 2-year ARI for temporary drainage structures) for the site erosion and sediment control measures.

It was also confirmed that:

- Clapham Yard's ESC-P was designed by suitably qualified person consistent with the Guidelines for Best Practice Erosion and Sediment Control (IECA 2008) as per Imposed Condition 18.

- The ESC-P was regularly reviewed and updated by a suitably qualified person in ESC management. Actions pertaining to the maintenance of the ESC measures prior to predicted rain events and following rainfall had been promptly addressed to a suitable degree of execution.
- External sources of sedimentation are present in the immediate vicinity of the Project Works and associated nominated monitoring locations.

Therefore, the source of the increased turbidity cannot not be reasonably accredited solely to the Project Works.

Compliance with Imposed Conditions 15 and 18 was met.

4 Compliance Review

4.1 Non-Compliance Events

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

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

4.1.1 Non - Compliance Events Summary

Table 11 Summary of Non-Compliance Events

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

4.2 CEMP Compliance

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

Table 12 CEMP and relevant Subplans monitoring requirements – Compliance Status for the reporting period

| Aspect | Monitoring requirement | Activities risk profile | Monitoring undertaken | Compliance status with CEMP / Subplan | Effect of the non-compliance |
|---------------|---|-------------------------|--|---------------------------------------|------------------------------|
| Air Quality | Visual monitoring program + Additional particulate monitoring as required based on the outcomes of the predictive assessment/risk profile | Moderate to High | Yes – visual monitoring is undertaken as part of routine inspections. Monitoring for TSP, PM10, and deposited dust was also undertaken | Compliant | Not Applicable |
| Air Quality | Complaint's response | Moderate to High | Not triggered – no complaints | Compliant | Not Applicable |
| Noise | Buffer distance tests based on the outcomes of the predictive assessment based / risk profile of activities | Moderate to High | Yes | Compliant | Not Applicable |
| Noise | Plant noise audits for noisy plant to validate models input as required | Moderate to High | No | N/A | Not Applicable |
| Noise | Complaint's response | Moderate to High | Yes – for Yeronga Night Works | Compliant | Not Applicable |
| Vibration | Construction Monitoring at Sensitive Places / DAPs - Model verification based on the outcomes of the predictive assessment based / risk profile of activities | Moderate to High | Yes | Compliant | Not Applicable |
| Vibration | Complaint's response | Moderate to High | Not triggered – no complaints | Compliant | Not Applicable |
| Water Quality | Monthly monitoring | N/A | Not triggered | Compliant | Not Applicable |
| Water Quality | Post Rainfall | Moderate to High | Triggered | Compliant | Not Applicable |
| Water Quality | Dewatering | Moderate to High | Not triggered – no dewatering to receiving water systems | N/A | Not Applicable |

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

None for this reporting period.

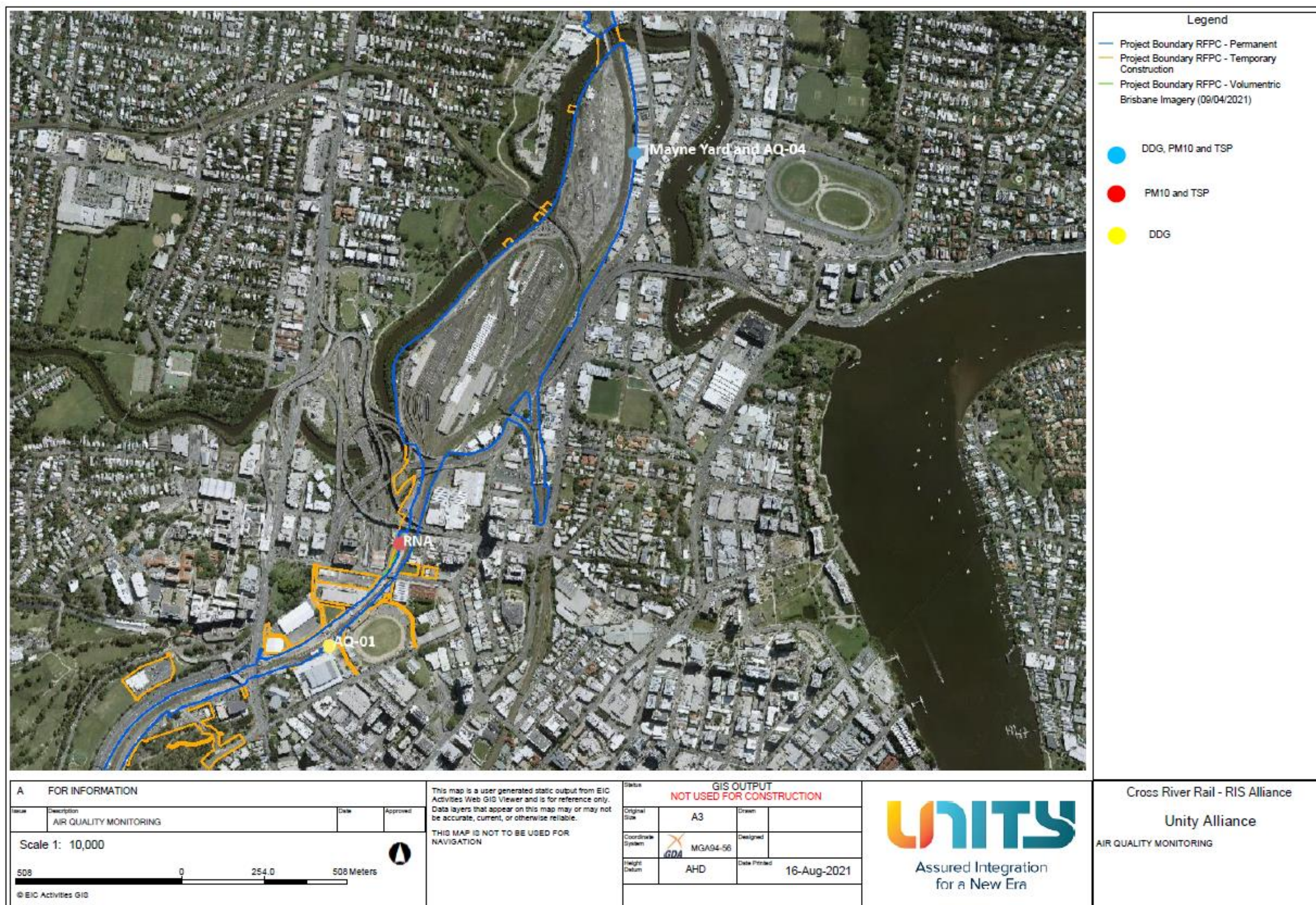
Attachment 2 Monitoring Locations – Noise

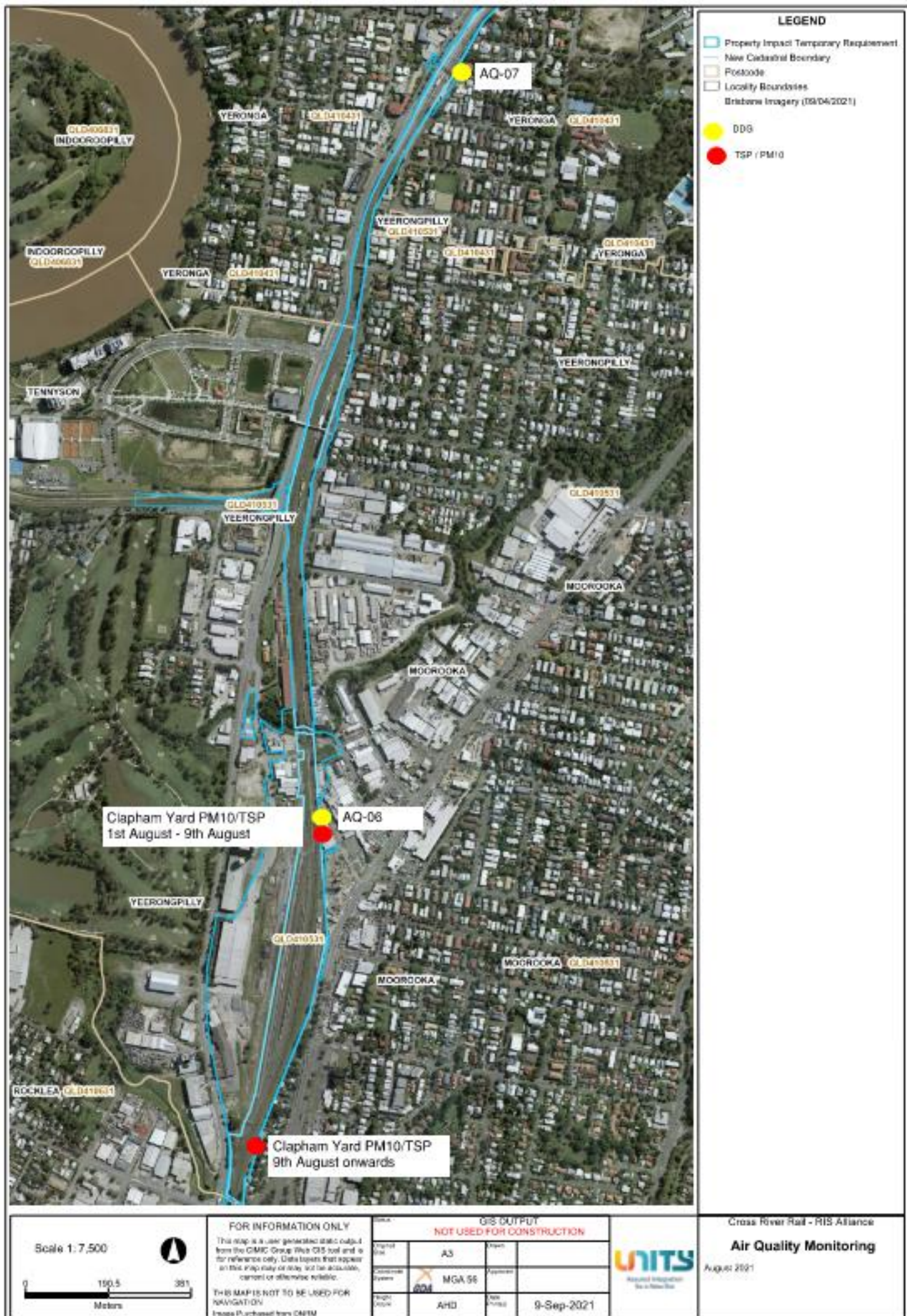


Attachment 3 Monitoring Locations – Vibration

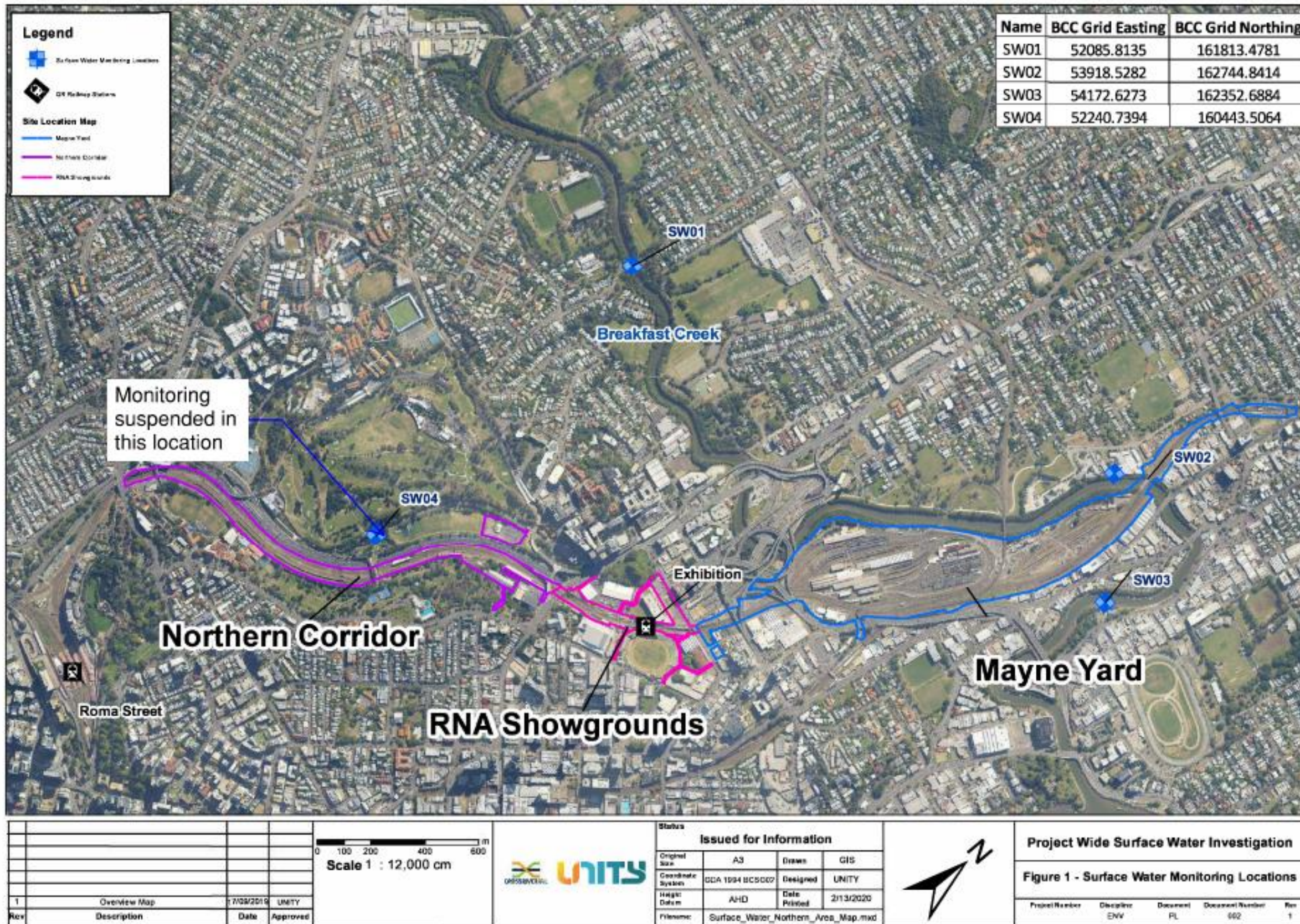
NIL FOR THE REPORTING PERIOD

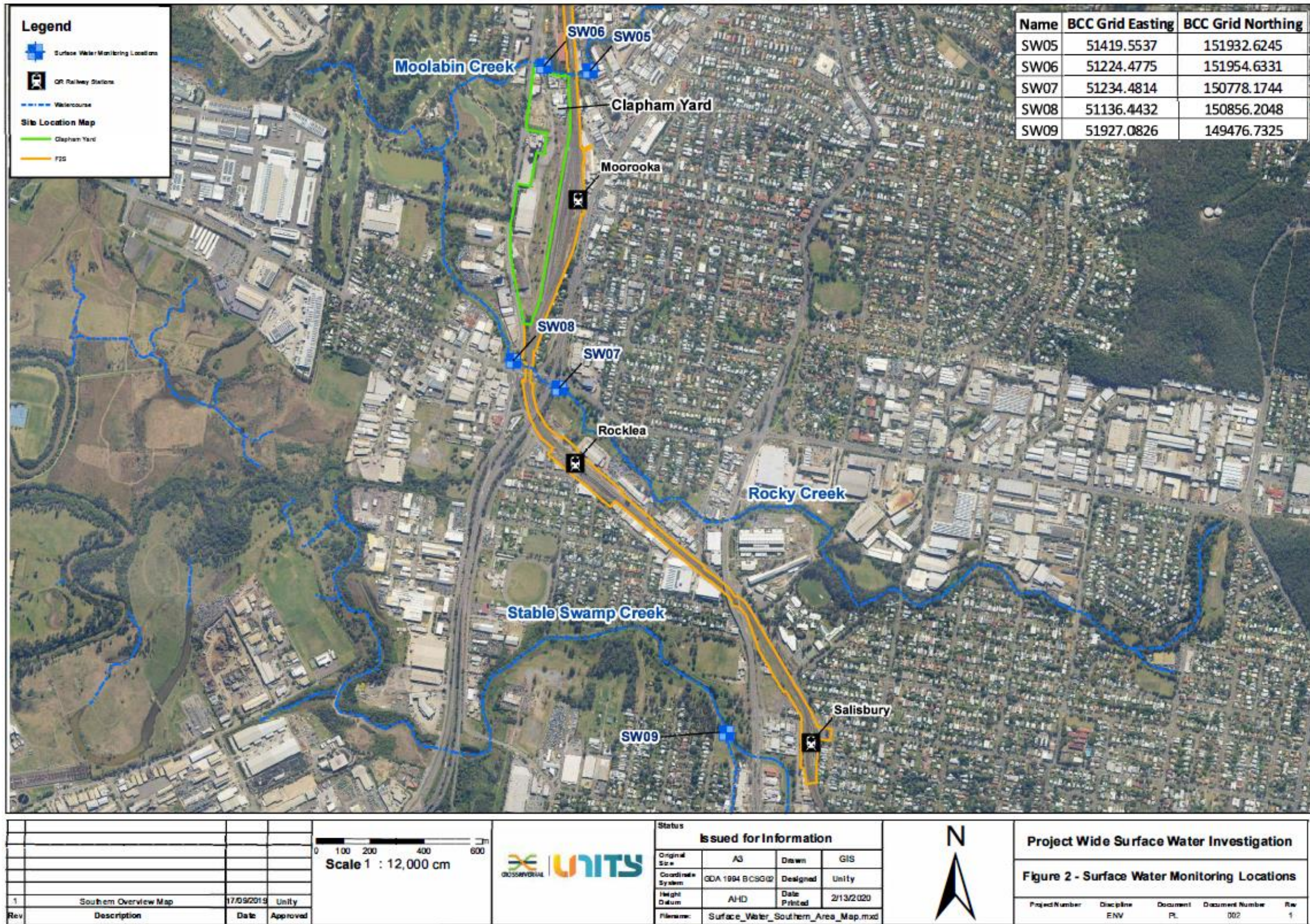
Attachment 4 Monitoring Locations – Air Quality





Attachment 5 Monitoring Locations – Surface Water





Appendix B TSD Monthly Report

COORDINATOR-GENERAL'S MONTHLY REPORT: NOVEMBER 2021

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

1. Monthly Monitoring Summary

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

Vibration monitoring was conducted on thirteen (13) occasions, and noise monitoring was conducted on seventeen (17) occasions during November 2021. Each vibration and noise monitoring event confirmed works adhered to project requirements.

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

Water quality monitoring was conducted before the release of water from the site on twenty-one (21) occasions. Each monitoring event confirmed project requirements were adhered to. Two (2) rounds of surface water quality monitoring were 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 8). |
| 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. |
| 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. |

| CG Condition | Requirement Summary | Compliance Met (Yes/No/NA) | Comment |
|--------------|--|-------------------------------|--|
| 20. | Landscape and open space – general requirement to minimise impacts on landscapes and open space values and specific requirements around Victoria park | Yes | CBGU project works are designed and implemented in accordance with Condition 20. |
| 21. | Worksite rehabilitation – worksites rehabilitated as soon as practicable upon completion of works or commissioning, and in consultation with Brisbane City Council. | Yes | CBGU project works are designed and implemented in accordance with Condition 21. |

3. Environmental Monitoring Results

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

3.1 Vibration

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

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

Thirteen (13) vibration monitoring sessions were conducted during November 2021.

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

Table 2: Vibration Monitoring Data

| No. | Start Date | Time (AM/PM) | Finish Date | Location | Average Vibration level (mm/s) | Max Vibration Level (mm/s) | Vibration Goal (mm/s) | Receiver / Goal Type | Adhered to Project Requirements (Yes / No) |
|-----|------------|-----------------|-------------|--|---|-------------------------------------|-----------------------------|--|---|
| 1. | 03/11/2021 | 4:15:00 PM | 03/11/2021 | Heritage Station (Roma Street Precinct) | - | 0.35 | 10 | Heritage Structure (Controlled Blast) | Yes |
| 2. | 05/11/2021 | 4:15:00 PM | 05/11/2021 | Heritage Station (Roma Street Precinct) | - | 0.55 | 10 | Heritage Structure (Controlled Blast) | Yes |
| 3. | 09/11/2021 | 4:18:00 PM | 09/11/2021 | Heritage Station (Roma Street Precinct) | - | 0.45 | 10 | Heritage Structure (Controlled Blast) | Yes |
| 4. | 11/11/2021 | 4:03:00 PM | 11/11/2021 | Heritage Station (Roma Street Precinct) | - | 0.55 | 10 | Heritage Structure (Controlled Blast) | Yes |
| 5. | 11/11/2021 | 9:08:00 AM | 20/11/2021 | Petrie Terrace (Northern Portal) | 0.11 | 0.37 | 2 | Heritage Structure | Yes |

| 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) |
|-----|------------|-----------------|-------------|--|---|-------------------------------------|-----------------------------|--|---|
| 6. | 12/11/2021 | 11:48:00 AM | 12/11/2021 | Ipswich Road (Southern Portal) | 0.14 | 0.37 | 0.5 | Commercial / Medical Sensitivity | Yes |
| 7. | 12/11/2021 | 12:31:00 PM | 13/11/2021 | Ipswich Road (Southern Portal) | 0.25 | 2.23 | 50 | Commercial | Yes |
| 8. | 15/11/2021 | 4:10:00 PM | 15/11/2021 | Heritage Station (Roma Street Precinct) | - | 0.75 | 10 | Heritage Structure (Controlled Blast) | Yes |
| 9. | 15/11/2021 | 10:41:00 AM | 23/11/2021 | Petrie Terrace (Northern Portal) | 0.24 | 1.13 | 2 | Heritage Structure | Yes |
| 10. | 17/11/2021 | 4:14:00 PM | 17/11/2021 | Heritage Station (Roma Street Precinct) | - | 0.55 | 10 | Heritage Structure (Controlled Blast) | Yes |
| 11. | 19/11/2021 | 4:26:00 PM | 19/11/2021 | Heritage Station (Roma Street Precinct) | - | 0.35 | 10 | Heritage Structure (Controlled Blast) | Yes |
| 12. | 23/11/2021 | 4:18:00 PM | 23/11/2021 | Heritage Station (Roma Street Precinct) | - | 0.20 | 10 | Heritage Structure (Controlled Blast) | Yes |
| 13. | 25/11/2021 | 4:16:00 PM | 25/11/2021 | Heritage Station (Roma Street Precinct) | - | 0.15 | 10 | Heritage Structure (Controlled Blast) | 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 exist that these goals may not be achieved.

Noise monitoring was conducted on seventeen (17) occasions during November 2021. All noise monitoring data adhered to project requirements and is provided in the table below.

Table 3: Noise Monitoring Data

| No. | Date | Time (AM / PM) | Location (Street Name) (Construction Precinct) | Purpose of Monitoring | Internal or External ^[3] Monitoring | Activity | Dominant Noise Source | Noise Goal LA10 ^[1] | Noise level LA10 | Noise Goal LAeq ^[2] | Noise level LAeq | Adhered to Project Requirements (Yes / No) |
|-----|------------|-------------------|--|---|--|------------------|---|--------------------------------------|------------------------|--------------------------------------|------------------------|---|
| 1. | 3/11/2021 | 4:15:00 PM | George Street (Roma Street Precinct) | Construction Monitoring at Sensitive Places | External | Controlled Blast | Construction | - | - | 130 ^[3] | 115.1 ^[3] | Yes |
| 2. | 5/11/2021 | 4:15:00 PM | George Street (Roma Street Precinct) | Construction Monitoring at Sensitive Places | External | Controlled Blast | Construction | - | - | 130 ^[3] | 116.3 ^[3] | Yes |
| 3. | 9/11/2021 | 4:18:00 PM | George Street (Roma Street Precinct) | Construction Monitoring at Sensitive Places | External | Controlled Blast | Construction | - | - | 130 ^[3] | 114.9 ^[3] | Yes |
| 4. | 11/11/2021 | 4:03:00 PM | George Street (Roma Street Precinct) | Construction Monitoring at Sensitive Places | External | Controlled Blast | Construction | - | - | 130 ^[3] | 114.5 ^[3] | Yes |
| 5. | 12/11/2021 | 11:54:00 PM | Ipswich Road (Southern Portal) | Model Verification | External | Piling | Construction, Rail and Road Traffic | 67 | 71.2 | 57 | 68.4 | Yes |

CBGU D&C JV

| 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. | 12/11/2021 | 12:32:00 PM | Ipswich Road (Southern Portal) | Model Verification | External | Piling | Construction, Rail and Local Traffic | 72 | 78.9 | 62 | 73.3 | Yes |
| 7. | 15/11/2021 | 4:10:00 PM | George Street (Roma Street Precinct) | Construction Monitoring at Sensitive Places | External | Controlled Blast | Construction | - | - | 130 | 113.4 | Yes |
| 8. | 17/11/2021 | 7:37:00 PM | Roma Street (Roma Street Precinct) | Stakeholder Enquiry | Internal | Excavation | Construction | 50 | 55.2 | 40 | 52 | Yes |
| 9. | 17/11/2021 | 7:59:00 PM | Roma Street (Roma Street Precinct) | Stakeholder Enquiry | Internal | Excavation | Construction | 50 | 51 | 40 | 48.8 | Yes |
| 10. | 17/11/2021 | 8:13:00 AM | Albert Street (Albert Street Precinct) | Construction Monitoring at Sensitive Places | External | Excavation, Craneage & Ground Support | Construction | 72 | 69.2 | 62 | 66.9 | Yes |
| 11. | 17/11/2021 | 8:38:00 AM | Albert Street (Albert Street Precinct) | Construction Monitoring at Sensitive Places | External | Excavation, Craneage & Ground Support | Construction | 72 | 73.3 | 62 | 71.1 | Yes |
| 12. | 17/11/2021 | 4:14:00 PM | George Street (Roma Street Precinct) | Construction Monitoring at Sensitive Places | External | Controlled Blast | Construction | - | - | 130 ^[3] | 113.7 ^[3] | Yes |

| No. | Date | Time (AM / PM) | Location (Street Name) (Construction Precinct) | Purpose of Monitoring | Internal or External ^[3] Monitoring | Activity | Dominant Noise Source | Noise Goal LA10 ^[1] | Noise level LA10 | Noise Goal LAeq ^[2] | Noise level LAeq | Adhered to Project Requirements (Yes / No) |
|-----|------------|-------------------|--|---|--|--------------------------|--------------------------|--------------------------------------|------------------------|--------------------------------------|------------------------|---|
| 13. | 19/11/2021 | 4:26:00 PM | George Street (Roma Street Precinct) | Construction Monitoring at Sensitive Places | External | Controlled Blast | Construction | - | - | 130 ^[3] | 114.7 ^[3] | Yes |
| 14. | 22/11/2021 | 11:41:00 PM | Mary Street (Albert Street Precinct) | Stakeholder Enquiry | Internal | Excavation & Craneage | Domestic and Public | 42 | 34.4 | 35 | 33.9 | Yes |
| 15. | 23/11/2021 | 12:01:00 AM | George Street (Roma Street Precinct) | Stakeholder Enquiry | External | Excavation & Craneage | Construction | 59 | 62.2 | 52 | 59.6 | Yes |
| 16. | 23/11/2021 | 4:18:00 PM | George Street (Roma Street Precinct) | Construction Monitoring at Sensitive Places | External | Controlled Blast | Construction | - | - | 130 ^[3] | 113.1 ^[3] | Yes |
| 17. | 25/11/2021 | 4:16:00 PM | George Street (Roma Street Precinct) | Construction Monitoring at Sensitive Places | External | Controlled Blast | Construction | - | - | 130 ^[3] | 110.1 ^[3] | Yes |

- [1] Intermittent noise goal (LA10)

- [2] Continuous noise goal (LAeq)

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

- 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 exist that these goals may not be achieved. Dust deposition monitoring was performed during November 2021. The dust deposition gauges result for the reporting period are detailed below, and all monitoring data adhered to project requirements.

Table 4: October 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 | 58.06 | Air quality monitoring was performed during the reporting period. All results adhered to project requirements. |
| Roma Street Precinct | | | | 16.13 | |

Note: At the completion of the October report the above results had not been received from the laboratory.

Table 5.1: November 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 | 67.86 | Air quality monitoring was performed during the reporting period. All results adhered to project requirements. |
| Roma Street Precinct | | | | 21.43 | |
| Albert Street Precinct (North) | | | | 38.71 | |
| Albert Street Precinct (South) | | | | 22.58 | |
| Woolloongabba Precinct (North) | | | | 13.33 | |
| Woolloongabba Precinct (South) | | | | 50.00 | |



CBGU D&C JV

| | | | | | |
|-----------------------------|--|--|--|-------|--|
| Boggo Road Precinct (North) | | | | 20.00 | |
| Boggo Road Precinct (South) | | | | 66.67 | |
| Southern Portal (South) | | | | 30.00 | |
| Southern Portal (East) | | | | 23.33 | |

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

3.3.2 Particulates and Ambient Air Quality Results

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

TSP and PM10 are monitored using portable air quality units and nearby Government air quality stations. Targeted monitoring of potential dust-generating activities is conducted by the mobile air quality units and was completed at Albert Street, Woolloongabba, Boggo Road and Northern Portal Precincts during November 2021. Three (3) Government air quality stations near the Construction Precincts are also utilised.

Table 6: Targeted Air Quality Monitoring – Total Suspended Particles and PM10 Data

| Date | TSP Project Goal ^[1] | PM10 Project Goal | Woolloongabba | | Albert | | Boggo Road ^[2] | | Northern Portal | |
|----------------|---------------------------------------|----------------------|---------------|-------|--------|-------|---------------------------|---------------------|-----------------|-------|
| | | | TSP | PM 10 | TSP | PM 10 | TSP | PM 10 | TSP | PM 10 |
| | | | (µg/m3/24 hr) | | | | | | | |
| 01-November-21 | 80 | 50 | 5.82 | 5.76 | 9.86 | 9.16 | - | - | 5.78 | 5.75 |
| 02-November-21 | 80 | 50 | 6.14 | 6.08 | 13.60 | 13.13 | - | - | 5.91 | 5.88 |
| 03-November-21 | 80 | 50 | 5.42 | 5.34 | 19.98 | 19.44 | - | - | 4.82 | 4.79 |
| 04-November-21 | 80 | 50 | 6.15 | 5.98 | 12.11 | 11.53 | - | - | 5.91 | 5.86 |
| 05-November-21 | 80 | 50 | 4.45 | 4.36 | 13.05 | 12.53 | - | - | 4.03 | 3.99 |
| 06-November-21 | 80 | 50 | 4.68 | 4.66 | 11.13 | 10.90 | - | - | 4.65 | 4.64 |
| 07-November-21 | 80 | 50 | 5.67 | 5.62 | 8.50 | 8.35 | - | - | 5.54 | 5.52 |
| 08-November-21 | 80 | 50 | 11.08 | 11.00 | 16.25 | 15.77 | - | - | 11.61 | 11.58 |
| 09-November-21 | 80 | 50 | 10.09 | 10.01 | 16.47 | 15.94 | - | - | 10.13 | 10.08 |
| 10-November-21 | 80 | 50 | 11.09 | 11.04 | 13.58 | 13.23 | - | - | 12.15 | 12.13 |
| 11-November-21 | 80 | 50 | 10.92 | 10.82 | 14.13 | 13.40 | - | - | 9.39 | 9.31 |
| 12-November-21 | 80 | 50 | 7.53 | 7.39 | 11.86 | 11.19 | 6.45 ^[3] | 6.42 ^[3] | 5.20 | 5.09 |
| 13-November-21 | 80 | 50 | 5.87 | 5.63 | 10.21 | 8.82 | 2.51 | 2.36 | 3.76 | 3.58 |
| 14-November-21 | 80 | 50 | 4.63 | 4.46 | 7.43 | 6.88 | 2.45 | 2.40 | 2.45 | 2.36 |
| 15-November-21 | 80 | 50 | 7.90 | 7.62 | 15.41 | 13.61 | 3.88 | 3.82 | 3.85 | 3.76 |
| 16-November-21 | 80 | 50 | 7.96 | 7.77 | 13.70 | 11.96 | 5.16 | 5.08 | 7.19 | 7.01 |
| 17-November-21 | 80 | 50 | 9.03 | 8.92 | 14.64 | 13.84 | 5.64 | 5.63 | 8.06 | 8.03 |
| 18-November-21 | 80 | 50 | 7.89 | 7.82 | 12.97 | 12.47 | 4.84 | 4.83 | 6.77 | 6.75 |

| Date | TSP Project Goal ^[1] | PM10 Project Goal | Woolloongabba | | Albert | | Boggo Road ^[2] | | Northern Portal | |
|----------------|---------------------------------------|----------------------|---------------|-------|--------|-------|---------------------------|-------|-----------------|-------|
| | | | TSP | PM 10 | TSP | PM 10 | TSP | PM 10 | TSP | PM 10 |
| | | | (µg/m3/24 hr) | | | | | | | |
| 19-November-21 | 80 | 50 | 9.48 | 9.38 | 13.82 | 13.20 | 5.98 | 5.97 | 8.65 | 8.58 |
| 20-November-21 | 80 | 50 | 8.03 | 7.96 | 13.50 | 12.84 | 5.08 | 5.06 | 7.98 | 7.91 |
| 21-November-21 | 80 | 50 | 7.53 | 7.47 | 10.79 | 10.51 | 4.76 | 4.76 | 6.95 | 6.91 |
| 22-November-21 | 80 | 50 | 9.80 | 9.77 | 13.51 | 13.05 | 6.26 | 6.25 | 8.45 | 8.42 |
| 23-November-21 | 80 | 50 | 6.82 | 6.80 | 17.62 | 16.79 | 5.09 | 5.08 | 5.97 | 5.95 |
| 24-November-21 | 80 | 50 | 6.72 | 6.70 | 12.69 | 12.11 | 4.34 | 4.33 | 5.91 | 5.88 |
| 25-November-21 | 80 | 50 | 8.23 | 8.21 | 21.40 | 21.07 | 5.44 | 5.43 | 8.09 | 8.06 |
| 26-November-21 | 80 | 50 | 7.01 | 6.99 | 15.34 | 14.94 | 4.63 | 4.62 | 6.86 | 6.82 |
| 27-November-21 | 80 | 50 | 6.32 | 6.28 | 17.78 | 17.10 | 4.86 | 4.85 | 6.00 | 5.94 |
| 28-November-21 | 80 | 50 | 4.16 | 4.12 | 14.02 | 13.68 | 2.81 | 2.79 | 3.88 | 3.84 |
| 29-November-21 | 80 | 50 | 4.65 | 4.60 | 10.62 | 10.05 | 4.98 | 4.95 | 3.97 | 3.94 |
| 30-November-21 | 80 | 50 | 5.17 | 5.15 | 13.10 | 12.81 | 4.35 | 4.35 | 5.58 | 5.55 |

- [1] Project works must aim to achieve construction air quality goals. The Coordinator-General Change Report – Whole of Project Refinements 2019 acknowledges instances exist that these goals may not be achieved.
- [3] Technical difficulties were experienced early in the month. On the 12 November 2021, the mobile air quality unit was reinstated. A nearby (Southern Brisbane) DES Air Quality Stations demonstrated compliant air quality during November 2021, 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 to the project sites. The results during this reporting period were as follows:

- Brisbane CBD: PM10 daily Maximum average: **18.8 µg/m3/24 hr** (<https://apps.des.qld.gov.au/air-quality/chart/?station=cbd¶meter=18&date=1/11/2021&timeframe=month>)
- South Brisbane: PM10 daily Maximum average: **27.2 µg/m3/24 hr** (<https://apps.des.qld.gov.au/air-quality/chart/?station=sbr¶meter=18&date=1/11/2021&timeframe=month>)
- Woolloongabba: PM10 daily Maximum average: **34.0 µg/m3/24 hr** (<https://apps.des.qld.gov.au/air-quality/chart/?station=woo¶meter=18&date=1/11/2021&timeframe=month>)

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

Particle PM10 at Brisbane CBD, 1–30 November 2021 [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 November 2021 (reproduction from the DES website).

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

[South Brisbane station overview](#)

The guideline for Particle PM10 is 100 $\mu\text{g}/\text{m}^3$ (1hr avg) and 50 $\mu\text{g}/\text{m}^3$ (24hr avg).

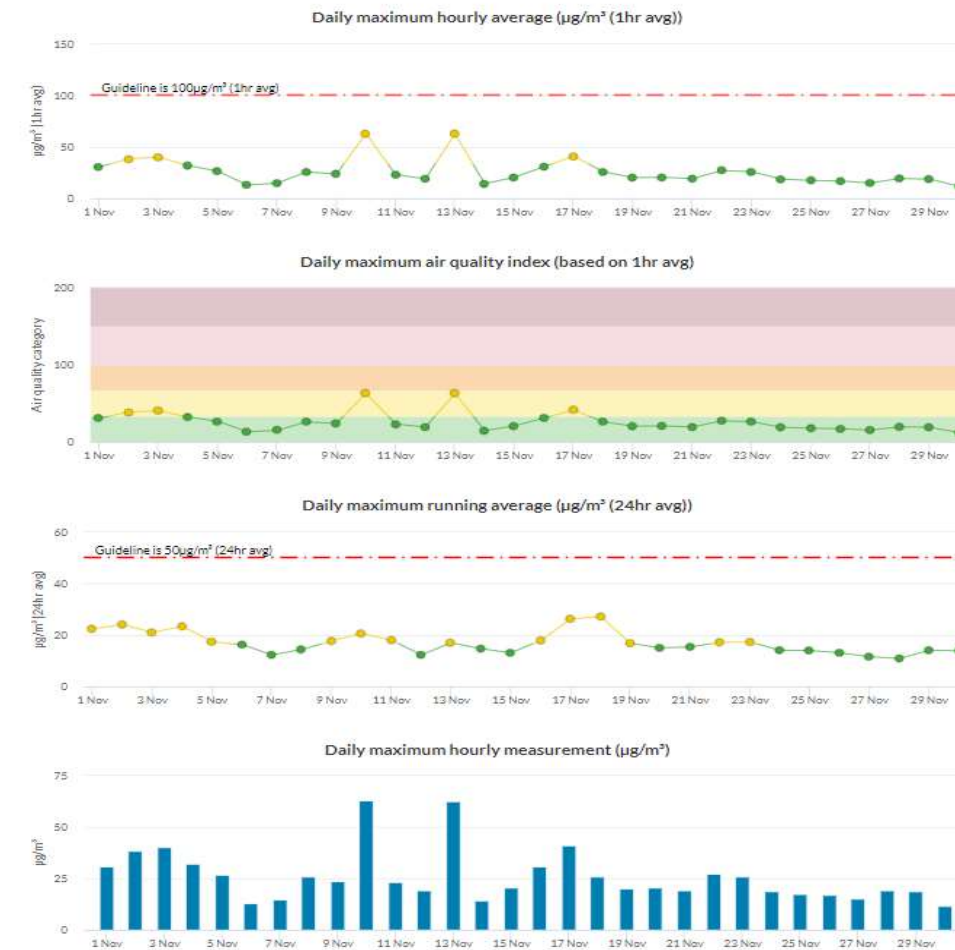


Figure 2: South Brisbane – DES Station - PM10 graph for November 2021 (reproduction from the DES website accessed).

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

[Woolloongabba station overview](#)

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



Figure 1: Woolloongabba – DES Station - PM10 graph for November 2021 (reproduction from the DES website).

3.4 Water Quality – Discharge

CBGU undertook four (4) water quality monitoring events prior to the release (groundwater and surface water) from the site. Two (2) samples were taken at the end of October but are therefore covered within this November reporting period.

3.4.1 Groundwater Discharge

Water quality monitoring data is provided in the table below.

Table 7: Groundwater Discharge – Water Quality Monitoring Data

| Location | Date | Testing of Water Quality Objectives ^[1] | | | | | | | | | | | Adhered to Project Requirements (Yes / No) |
|---------------|------------|--|-------------------------|-----------------|---------------------------------|----------------------------------|---------------------------------|--------------------------------------|-------------------------|---|----------------------|-------------------------------------|--|
| | | pH | Suspended solids (mg/L) | Turbidity (NTU) | Ammonia N (µg/L) ^[3] | Oxidised N (µg/L) ^[3] | Organic N (µg/L) ^[3] | Total nitrogen (µg/L) ^[3] | Total phosphorus (µg/L) | Filterable Reactive phosphorus (FRP) (µg/L) | Chlorophyll a (µg/L) | Dissolved oxygen (%) ^[2] | |
| Woolloongabba | 28/10/2021 | 7.65 | 18.00 | 4.70 | 180.00 | 350.00 | 800.00 | 1400.00 | 70.00 | <10 | <1 | 48.95 | Yes |
| Albert Street | 28/10/2021 | 7.58 | <5 | 1.20 | 9670.00 | 13700.00 | 2200.00 | 25600.00 | 60.00 | <10 | <1 | 87.14 | Yes |
| Roma Street | 1/11/2021 | 7.43 | <5 | 0.80 | 310.00 | 900.00 | 500.00 | 1700.00 | 30.00 | <10 | <1 | 94.40 | Yes |
| Boggo Road | 5/11/2021 | 7.20 | 8.00 | 3.40 | <10 | 340.00 | 600.00 | 1300.00 | 40.00 | <10 | <1 | 104.09 | Yes |

- [1] The Project's discharge procedure is designed to minimise environmental impact and aim to achieve the water quality objectives. Water quality objectives are defined as goals within the Brisbane River estuary environmental values and water quality objectives document.
- [2] Adhered to project requirements regarding aiming to achieve the water quality objective. The dissolved oxygen samples were acquired prior to discharge from the site. Pumping of the water will have inadvertently aerated the water, thus influencing the dissolved oxygen level.
- [3] Adhered to project requirements regarding aiming to achieve the water quality objective. These samples identified results generally consistent with pre-construction conditions, and no external influences were introduced by construction activity.
- Note: testing of EPP (Water) Quality Objectives are analysed at a NATA accredited laboratory each month (results provided above). Field testing (turbidity, pH) is done regularly during ongoing discharge.

3.4.2 Ponded/Surface Water Discharge

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

Table 8: 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 | 1/11/2021 | 8.20 | 5.60 | Yes |
| 2. | Northern Portal | 2/11/2021 | 8.23 | 41.30 | Yes |
| 3. | Northern Portal | 3/11/2021 | 8.23 | 20.67 | Yes |
| 4. | Northern Portal | 4/11/2021 | 7.99 | 17.78 | Yes |
| 5. | Northern Portal | 5/11/2021 | 8.08 | 1.69 | Yes |
| 6. | Northern Portal | 6/11/2021 | 7.99 | 0.50 | Yes |
| 7. | Northern Portal | 8/11/2021 | 8.04 | 37.80 | Yes |
| 8. | Northern Portal | 9/11/2021 | 7.96 | 39.70 | Yes |
| 9. | Northern Portal | 10/11/2021 | 8.00 | 21.30 | Yes |
| 10. | Northern Portal | 11/11/2021 | 7.97 | 19.80 | Yes |
| 11. | Northern Portal | 13/11/2021 | 8.10 | 2.67 | Yes |
| 12. | Northern Portal | 15/11/2021 | 7.63 | 32.90 | Yes |
| 13. | Northern Portal | 16/11/2021 | 8.02 | 1.69 | Yes |
| 14. | Northern Portal | 17/11/2021 | 8.10 | 27.90 | Yes |
| 15. | Northern Portal | 22/11/2021 | 8.22 | 21.70 | Yes |

| | | | | | |
|-----|-----------------|------------|------|-------|-----|
| 16. | Northern Portal | 23/11/2021 | 8.01 | 13.07 | Yes |
| 17. | Northern Portal | 24/11/2021 | 8.10 | 42.10 | Yes |
| 18. | Northern Portal | 25/11/2021 | 8.04 | 24.30 | Yes |
| 19. | Northern Portal | 26/11/2021 | 8.30 | 25.60 | Yes |
| 20. | Northern Portal | 27/11/2021 | 7.33 | 6.76 | Yes |
| 21. | Northern Portal | 29/11/2021 | 8.07 | 40.40 | 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 November 2021, CBGU JV undertook two (2) rounds 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 9: Offsite Upstream & Downstream Water Quality Data

| Location | Upstream / Downstream | Date | Purpose of Monitoring | Turbidity (NTU) | EC (µS/cm) | Dissolved oxygen (%) | pH |
|-----------------|-----------------------|------------|-----------------------|-----------------|------------|----------------------|------|
| Woolloongabba | Upstream | 12/11/2021 | Monthly | 12.28 | 27,500 | 87.14 | 7.7 |
| Woolloongabba | Downstream | 12/11/2021 | Monthly | 12.38 | 22,700 | 94.40 | 7.77 |
| Boggo Road[1] | Downstream | 12/11/2021 | Monthly | 69.00 | 478 | 78.67 | 7.48 |
| Albert Street | Upstream | 12/11/2021 | Monthly | 10.12 | 27,700 | 85.93 | 7.66 |
| Albert Street | Downstream | 12/11/2021 | Monthly | 9.89 | 27,700 | 87.14 | 7.7 |
| Roma Street | Upstream | 15/11/2021 | Monthly | 51.20 | 32,600 | 85.93 | 7.82 |
| Roma Street | Downstream | 15/11/2021 | Monthly | 21.50 | 31,100 | 84.72 | 7.8 |
| Northern Portal | Upstream | 15/11/2021 | Monthly | 17.93 | 690 | 2.42 | 7.52 |
| Northern Portal | Downstream | 15/11/2021 | Monthly | 10.56 | 695 | 1.21 | 7.55 |
| Boggo Road[1] | Downstream | 24/11/2021 | Post Rainfall | 54.70 | 719 | 90.28 | 6.80 |
| Woolloongabba | Upstream | 24/11/2021 | Post Rainfall | 21.40 | 24,700 | 89.10 | 7.94 |
| Woolloongabba | Downstream | 24/11/2021 | Post Rainfall | 25.60 | 6190 | 95.04 | 7.70 |
| Roma Street | Upstream | 24/11/2021 | Post Rainfall | 9.84 | 23,800 | 89.10 | 7.76 |

| Location | Upstream / Downstream | Date | Purpose of Monitoring | Turbidity (NTU) | EC (µS/cm) | Dissolved oxygen (%) | pH |
|-----------------|-----------------------|------------|-----------------------|-----------------|------------|----------------------|------|
| Roma Street | Downstream | 24/11/2021 | Post Rainfall | 12.96 | 21,200 | 87.91 | 7.39 |
| Northern Portal | Upstream | 24/11/2021 | Post Rainfall | 60.70 | 498 | 98.60 | 7.48 |
| Northern Portal | Downstream | 24/11/2021 | Post Rainfall | 61.70 | 496 | 90.28 | 7.76 |
| Albert Street | Upstream | 24/11/2021 | Post Rainfall | 15.14 | 21,600 | 89.56 | 7.82 |
| Albert Street | Downstream | 24/11/2021 | Post Rainfall | 18.03 | 24,100 | 91.98 | 6.80 |

- [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 10: 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 |
|-------------|---------------------------------------|--|---------------------|---|-----------------|
| Nil | | | | | |

5 Complaints

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

During November 2021, nineteen (19) complaints relating to the Project were received, as detailed in Table 11 below.

Table 11: Summary of Complaints

| No. | Date | Location | Description of Issue | Responses | Status of Event |
|-----|-----------|-------------------------------------|----------------------|---|-----------------|
| 1. | 1/11/2021 | (Southern Area/Boggo Road Precinct) | Odour | <p>A stakeholder contacted the Project regarding odour from either Southern Area or the Boggo Road Precinct.</p> <p>CBGU provided the stakeholder with an overview of the works occurring and their duration at the Southern Area or the Boggo Road Precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance.</p> <p>CBGU investigated the event and could not detect the presence of an odour.</p> | Closed |
| 2. | 2/11/2021 | Kent Street (Southern Area) | Bikeway | <p>A stakeholder contacted the Project regarding concerns with the bikeway controls.</p> <p>CBGU provided the stakeholder with an overview of the signage and mitigation measures that have been implemented to improve safety for bicycle users.</p> | Closed |

| No. | Date | Location | Description of Issue | Responses | Status of Event |
|-----|------------|---|-------------------------|---|-----------------|
| 3. | 3/11/2021 | Albert Street (Albert Street Precinct) | Worker Behaviour | A stakeholder contacted the Project regarding worker behaviour. CBGU investigated the event and reiterated the appropriate community engagement procedures to the worker and work crew. | Closed |
| 4. | 4/11/2021 | Mary Street (Albert Street Precinct) | Noise | A stakeholder contacted the Project regarding noise from the Albert Street precinct. CBGU provided the stakeholder with an overview of the works occurring and their duration at the Albert Street precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance. CBGU also reviewed the circumstances and monitoring confirmed works adhered to project noise requirements, and the works undertaken were consistent with the community notification. | Closed |
| 5. | 9/11/2021 | Kent Street (Southern Area) | Traffic Management | A stakeholder contacted the Project regarding the use of traffic management controls. CBGU provided the stakeholder with an overview of the works occurring and justification for the use of traffic controls. | Closed |
| 6. | 11/11/2021 | Roma Street (Roma Street Precinct) | Heavy Vehicle Movements | A stakeholder contacted the Project regarding heavy vehicles movements. CBGU provided the stakeholder with an overview of the works occurring and their duration at the Albert Street precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance. CBGU also reviewed the circumstances and confirmed works adhered to project noise requirements. | Closed |
| 7. | 15/11/2021 | Roma Street (Roma Street Precinct) | Noise | A stakeholder contacted the Project regarding noise from the Roma Street precinct. CBGU provided the stakeholder with an overview of the works occurring and their duration at the Roma Street precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance. CBGU also reviewed the circumstances and monitoring confirmed works adhered to project noise requirements, and the works undertaken were consistent with the community notification. | Closed |
| 8. | 16/11/2021 | (Woolloongabba Precinct) | Worker Behaviour | A stakeholder contacted the Project regarding worker behaviour. CBGU investigated the event and reiterated the appropriate operating procedures. | Closed |

| No. | Date | Location | Description of Issue | Responses | Status of Event |
|-----|------------|---|----------------------|--|-----------------|
| 9. | 17/11/2021 | Herschel Street (Roma Street Precinct) | Noise | <p>A stakeholder contacted the Project regarding noise from the Roma Street precinct.</p> <p>CBGU provided the stakeholder with an overview of the works occurring and their duration at the Roma Street precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance.</p> <p>CBGU also reviewed the circumstances and monitoring confirmed works adhered to project noise requirements, and the works undertaken were consistent with the community notification.</p> | Closed |
| 10. | 17/11/2021 | Mary Street (Albert Street Precinct) | Noise | <p>A stakeholder contacted the Project regarding noise from the Albert Street precinct.</p> <p>CBGU provided the stakeholder with an overview of the works occurring and their duration at the Albert Street precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance.</p> <p>CBGU also reviewed the circumstances and monitoring confirmed works adhered to project noise requirements, and the works undertaken were consistent with the community notification.</p> | Closed |
| 11. | 18/11/2021 | Albert Street (Albert Street Precinct) | Noise | <p>A stakeholder contacted the Project regarding noise from the Albert Street precinct.</p> <p>CBGU provided the stakeholder with an overview of the works occurring and their duration at the Albert Street precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance.</p> <p>CBGU also reviewed the circumstances and monitoring confirmed works adhered to project noise requirements, and the works undertaken were consistent with the community notification.</p> | Closed |
| 12. | 20/11/2021 | Albert Street (Albert Street Precinct) | Noise | <p>A stakeholder contacted the Project regarding noise from the Albert Street precinct.</p> <p>CBGU provided the stakeholder with an overview of the works occurring and their duration at the Albert Street precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance.</p> <p>CBGU also reviewed the circumstances and monitoring confirmed works adhered to project noise requirements, and the works undertaken were consistent with the community notification.</p> | Closed |

| No. | Date | Location | Description of Issue | Responses | Status of Event |
|-----|------------|---|----------------------|---|-----------------|
| 13. | 22/11/2021 | Merton Road (Boggo Road Precinct) | Traffic Management | A stakeholder contacted the Project regarding vehicle parking on Merton Street. CBGU investigated the event and reminded the workforce regarding project parking via a toolbox talk. | Closed |
| 14. | 22/11/2021 | Albert Street (Albert Street Precinct) | Noise | A stakeholder contacted the Project regarding noise from the Albert Street precinct. CBGU provided the stakeholder with an overview of the works occurring and their duration at the Albert Street precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance. CBGU also reviewed the circumstances and monitoring confirmed works adhered to project noise requirements, and the works undertaken were consistent with the community notification. | Close |
| 15. | 24/11/2021 | Albert Street (Albert Street Precinct) | Noise | A stakeholder contacted the Project regarding noise from the Albert Street precinct. CBGU provided the stakeholder with an overview of the works occurring and their duration at the Albert Street precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance. CBGU also reviewed the circumstances and monitoring confirmed works adhered to project noise requirements, and the works undertaken were consistent with the community notification. | Closed |
| 16. | 24/11/2021 | Roma Street (Roma Street Precinct) | Noise | A stakeholder contacted the Project regarding noise from the Roma Street precinct. CBGU provided the stakeholder with an overview of the works occurring and their duration at the Roma Street precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance. CBGU also reviewed the circumstances and monitoring confirmed works adhered to project noise requirements, and the works undertaken were consistent with the community notification. | Closed |
| 17. | 27/11/2021 | Albert Street (Albert Street Precinct) | Noise | A stakeholder contacted the Project regarding noise from the Albert Street precinct. CBGU provided the stakeholder with an overview of the works occurring and their duration at the Albert Street precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance. | Closed |

| No. | Date | Location | Description of Issue | Responses | Status of Event |
|-----|------------|---|----------------------|--|-----------------|
| | | | | CBGU also reviewed the circumstances and monitoring confirmed works adhered to project noise requirements, and the works undertaken were consistent with the community notification. | |
| 18. | 27/11/2021 | Mary Street (Albert Street Precinct) | Noise | <p>A stakeholder contacted the Project regarding noise from the Albert Street precinct.</p> <p>CBGU provided the stakeholder with an overview of the works occurring and their duration at the Albert Street precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance.</p> <p>CBGU also reviewed the circumstances and monitoring confirmed works adhered to project noise requirements, and the works undertaken were consistent with the community notification.</p> | Closed |
| 19. | 29/11/21 | Roma Street (Roma Street Precinct) | Noise | <p>A stakeholder contacted the Project regarding noise from the Roma Street precinct.</p> <p>CBGU provided the stakeholder with an overview of the works occurring and their duration at the Roma Street precinct. CBGU also outlined the mitigation measures used to alleviate potential impacts and ensure compliance.</p> <p>CBGU also reviewed the circumstances and monitoring confirmed works adhered to project noise requirements, and the works undertaken were consistent with the community notification.</p> | Closed |