



Box Hill

Burwood

Glen Waverley

Monash

Clayton

Stabling facility

Cheltenham

Suburban Rail Loop East Early Works

Air Quality Monthly Report

December 19 2023 – January 18 2024



Document Information

Document Details	
Issue Date	07/02/2024
Revision Number	E
Status	Issued for Review

Revision Control

Revision Number	Change Detail	Date	Comment
A	Draft issued to SRLA	23/01/2023	Issued for Review
B	Updated following SRLA review	29/01/2024	Issued for Review
C	Updated following SRLA review	30/01/2024	Issued for Review
D	Updated following SRLA review	30/01/2024	Issued for Review
E	Updated following SRLA review	07/02/2024	Issued for Review

Contents

Document Information	2
Revision Control	2
Glossary	4
Executive Summary	5
1. Introduction	7
1.1. Suburban Rail Loop East	7
1.2. Environmental Management Framework.....	7
2. Air Quality Monitoring	7
2.1. Context	7
2.2. Purpose	8
2.3. Monitoring Locations	8
2.4. Data Limitations and Verification	9
3. Results	9
3.1. Box Hill.....	10
3.1.1. Analysis	11
3.2. Burwood	12
3.2.1. Analysis	13
3.3. Monash.....	14
3.3.1. Analysis	15
3.4. Clayton.....	16
3.4.1. Analysis	17
3.5. Heatherton.....	18
3.5.1. Analysis	19
3.6. Meteorological Conditions	19
4. Quality Assurance	20
4.1. Data Capture	20
4.2. Data Validation.....	21

Glossary

$\mu\text{g}/\text{m}^3$ – micrograms per cubic metre is a unit of measurement used to measure the mass of air pollutants (micrograms) per volume of air (cubic metre) as a concentration.

Environment Effects Statement (EES) – In Victoria, environment assessment of the potential environmental impacts or effects of a proposed development under the *Environment Effects Act 1978*.

Environmental Air Quality and Dust Management Plan (EAQDMP) – The EAQDMP is environmental management documentation prepared by the MC to manage and monitor air quality impacts during construction of SRL East. It includes the RMMP and TARP and is verified by the IEA.

Environmental Management Framework (EMF) – The purpose of the EMF is to provide a transparent and integrated framework to manage environmental effects of the SRL East Project during construction and operation to achieve acceptable environmental outcomes.

Environmental Performance Requirements (EPRs) – The EPRs define the environmental outcomes that must be achieved during the design, construction and operation of SRL East and are included within the EMF.

Environment Protection Authority (EPA) - Victorian regulator established under the *Environment Protection Act 2017* and which has the statutory objective to protect human health and the environment from the harmful effects of pollution and waste.

Environmental Reference Standard (ERS) – The ERS is a tool made under the *Environment Protection Act 2017* to identify and assess environmental values, including air quality, in Victoria.

Independent Environmental Auditor (IEA) – The IEA is appointed by the Victorian Government to undertake independent environmental reviews and audits of project activities including assessing compliance with the EMF and EPRs.

PM₁₀ – Particulate matter with an aerodynamic diameter of 10 micrometres (μm) or less. PM₁₀ particles are small enough to have a potential impact on human health.

Risk Management and Monitoring Program (RMMP) – this plan outlines the approach to air quality monitoring and includes instrumental, visual monitoring, TARP and public reporting processes. The RMMP forms part of the EAQDMP.

Trigger Action Response Protocol (TARP) – The TARP defines a series of adaptive management measures that are implemented to avoid or mitigate impacts from dust emissions for nearby sensitive receptors in response to the results from monitoring. The TARP forms part of the EAQDMP.

Executive Summary

Key Outcomes

Key outcomes arising from the monthly air quality monitoring program:

- Monitoring across the majority of the Project was suspended when construction stopped during the holiday shutdown period from 22 December 2023 to 10 January 2024.
- In Box Hill, the TARP was not required as the air quality during the reporting period consistently met objectives.
- In Burwood, an adhesive material was applied to the site prior to the holiday shutdown period to bind the soil together to reduce dust. The TARP was not required as the air quality during the reporting period consistently met objectives.
- In Monash, the TARP was not required as the air quality during the reporting period consistently met objectives.
- In Clayton, the application of water was used as a dust suppressant throughout the demolition to reduce dust. The TARP was not required for the works undertaken outside the holiday shutdown period.
- In Heatherton, an adhesive material was applied to the site prior to the holiday shutdown period to bind the soil together to reduce dust. The TARP was not required as the air quality during the reporting period consistently met objectives.

Purpose of the Report

This report presents the results of the monthly review of the air quality monitoring data for each Suburban Rail Loop (SRL) East Early Works construction site for the period between 19 December 2023 and 18 January 2024 in accordance with SRL East Environmental Management Framework (EMF) and Environmental Performance Requirements (EPRs) AQ1 and AQ2. Laing O'Rourke is delivering the Early Works as Managing Contractor (MC). Early Works for SRL East commenced at Burwood in May 2023, Box Hill in June 2023, Monash and Heatherton in October 2023, and Clayton in December 2023.

The MC implements an air quality monitoring program on each site that includes both visual observation and instrumental air quality monitoring. The purpose of the air quality monitors is to measure the concentration of small dust particles in the air near the construction site. These particles, known as PM₁₀, have the potential to impact human health. PM₁₀ refers to particles with an aerodynamic diameter of 10 µm or less.

Measured PM₁₀ concentrations may be compared to air quality objectives that are defined in the Environment Reference Standard (ERS) which is a tool under the *Environment Protection Act 2017*. The ERS sets out the air quality objectives for PM₁₀ which are measured over a 24-hour averaging period. The objectives are risk-based concentrations that are not intended to be compliance levels, but they assist the MC to understand the risk to human health. When the instrumental monitor and/or visual observations identify a change in site conditions this prompts the MC to implement mitigations on site to reduce dust impacts, and review measures applied.

Scope of Reporting

This report does not include works delivered as SRL Initial Works. The SRL Initial Works which include investigative works, protective works, utility relocations and installations, ground improvement works (such as at the Heatherton Stabling Facility) and minor road modifications were subject to a separate approval process under Clause 52.30 of the Victoria Planning Provisions (VPP) and were approved by the Minister for Planning on 19 December 2021. These works are required to comply with Clause 52.30 of the VPP and are not subject to the EMF and EPRs.

This report does not include monitoring related to asbestos containing material removal, which is monitored and reported separately.

No works requiring monitoring (i.e. Early Works) occurred at the following locations during this period:

- Glen Waverley
- Cheltenham.

Results

The key findings are summarised in Table 1. An analysis of these findings is provided in Section 3.

Table 1: Summary of air quality monitoring results for reporting period.

Location	Parameter	Averaging Period	Max Concentration ($\mu\text{g}/\text{m}^3$)	Median Concentration ($\mu\text{g}/\text{m}^3$)	Days TARP Implemented in the Month
Representative Background ¹					
Alphington	PM ₁₀	24-hour	24.8	15.9	-
Dandenong	PM ₁₀	24-hour	22.5	16.1	-
Box Hill					
Site Office	PM ₁₀	24-hour	25.7	15.7	0
East of Market Street	PM ₁₀	24-hour	25.7	17.2	0
Burwood					
Corner of McComas Grove and Sinnott Street	PM ₁₀	24-hour	25.7	12.8	0
16 McComas Grove	PM ₁₀	24-hour	24.8	10.6	0
Monash					
Site Office	PM ₁₀	24-hour	25.7	15.8	0
Clayton					
CL69 – SiteHive 1 ²	PM ₁₀	24-hour	32.6	21.1	0
Heatherton					
SSY - South ³	PM ₁₀	24-hour	24.4	18.2	0

¹ The EPA monitoring station at Dandenong is used as the representative control site for Cheltenham and Heatherton. The EPA monitoring station at Alphington is used as the representative control site for Clayton, Monash, Glen Waverley, Burwood and Box Hill.

² See Section 3.4 for map of monitoring location.

³ See Section 3.5 for map of monitoring location.

1. Introduction

1.1. Suburban Rail Loop East

Suburban Rail Loop (SRL) will deliver a 90km rail line linking every major suburban line from the Frankston Line to the Werribee Line via Melbourne Airport, better connecting Victorians to jobs, retail, education, health services and each other. Construction of SRL East from Cheltenham to Box Hill is underway and will connect major employment, health, education and retail destinations in Melbourne's east and south-east. The new underground train line will reduce travel times, connect people travelling on the Gippsland corridor and building it will create up to 8000 direct local jobs. Trains will be running by 2035.

Early Works for SRL East commenced at Burwood in May 2023, Box Hill in June 2023, Monash and Heatherton in October 2023, and Clayton in December 2023. Laing O'Rourke is delivering the Early Works as MC. Early Works include:

- road modifications
- utility relocations
- ground improvement works
- tram terminus works, and
- site preparations for tunnel boring machines.

This report does not include works delivered as SRL Initial Works. The SRL Initial Works, which includes investigative works, protective works, utility relocations and installations, ground improvement works (such as at the Heatherton Stabling Facility) and minor road modifications, were subject to a separate approval process under Clause 52.30 of the Victoria Planning Provisions (VPP) and were approved by the Minister for Planning on 19 December 2021. These works are required to comply with Clause 52.30 of the VPP and are not subject to the EMF and EPRs.

1.2. Environmental Management Framework

The Environmental Management Framework (EMF) for SRL East (the Project) provides a transparent and integrated framework to manage environmental effects of the Project and includes EPRs that define environmental outcomes that must be achieved during the design, construction, and operation phases the SRL East website at <https://bigbuild.vic.gov.au/library/suburban-rail-loop/planning/srl-east-environmental-management-framework>.

The development of the EMF has been informed by relevant legislation, policy and guidelines, and the specialist impact assessment studies completed for the SRL East Environment Effects Statement (EES) and the Minister's Assessment, dated 5 August 2022.

The EMF requires the MC to develop and implement an Environmental Air Quality and Dust Management Plan (EAQDMP). As part of implementing this plan, the MC is required to conduct monitoring of PM₁₀ concentrations and measure wind speed and direction at each Early Works construction site and at a representative control site. The EAQDMP also includes a Trigger Action Response Protocol (TARP) which defines a set of triggers that prompt actions on site to reduce dust impacts, and review mitigation measures applied. The EMF, and therefore this report, is not applicable to SRL Initial Works activities.

The MC regularly reviews the monitoring data at each site, for the purpose of assessing the effectiveness of EAQDMP implementation. The verified results of the PM₁₀ monitoring for the applicable monthly period are contained in this report, which will be available to the public, in accordance with the requirements of the EMF.

2. Air Quality Monitoring

2.1. Context

Maintaining air quality is important for public health, the liveability of our cities and our environment. Overall air quality conditions in Melbourne are good, however like all major cities, there are days where the background concentrations of air pollutants are very high on a regional basis. Sometimes these elevated concentrations are due to regional influences such as windblown continental dust, bushfires or hazard reduction burns. Emissions from traffic, home heating, and industrial emissions across Melbourne can also cause high background concentrations, especially when the weather is calm. Environment Protection Authority (EPA) monitoring stations measure these background levels of pollution that already exist in the air within the surrounding area. The EPA monitoring station at Dandenong is used as the representative

control site for Heatherton and Cheltenham, and the EPA monitoring station at Alphington is used as the representative control site for all other SRL work sites.

Without effective management, construction of the Project has the potential to contribute to these background concentrations which may impact public health. Comparison of SRL East monitoring results with publicly available EPA monitoring data is used by the MC to identify when construction-related activities are impacting local air quality, and conversely when the local air quality results may be influenced by background conditions outside of the influence of the construction site.

Meteorological conditions such as wind direction and speed can impact on the dispersion of particulates in the air and by monitoring these, the MC can respond when conditions on site change. Having records of wind conditions is also helpful for retrospectively identifying the activity that is causing any elevated dust concentrations.

2.2. Purpose

The purpose of the air quality monitors is to measure the concentration of small dust particles in the air near the construction site. These particles, known as PM₁₀ have the potential to impact human health. PM₁₀ refers to particles with an aerodynamic diameter of 10 µm or less.

The measured concentrations are compared to air quality objectives that are defined in the Environment Reference Standard (ERS) which is a tool under the *Environment Protection Act 2017*. The air quality objectives defined in the ERS informed the objectives for air quality for the Project, noting that the ambient air ERS is not a compliance standard that one can pollute up to. The ERS does not provide an indicator or objective for nuisance dust.

The objectives are risk-based concentrations that are not intended to be compliance levels, but they assist the MC to understand the risk to human health. The ERS sets out the air quality objectives for PM₁₀ which are measured over a 24-hour averaging period, as reproduced below in Table 2.

Table 2: Ambient air quality objectives for PM₁₀.

Indicator	Air Quality Objective (µg/m ³)	Averaging Period
Particles as PM ₁₀ (maximum concentration)	50	24-hour

The measured concentrations (which include both existing background concentrations and the Project's incremental contribution over a 24-hour period) are presented in Section 3. Monitoring is continuous, even when there are no construction-related activities occurring on the site. Periods of time where there are no site activities are classified as 'Out of Hours'. The potential for dust generation from the work sites is much lower when there are no site activities occurring, however dust can still be generated at the work site during "Out of Hours" periods due to wind erosion.

2.3. Monitoring Locations

Air quality monitors are located on or adjacent to the Early Works construction sites, to represent local air quality conditions, in positions that enable the MC to adequately measure potential impact of works on local sensitive receivers including residents. This does not include monitoring undertaken as part of the SRL Initial Works as outlined in Section 1.1.

The air quality monitors were installed on the following dates at each of the following locations. The location of these monitors is shown on maps in Section 3 of this Report.

Table 3: Air quality monitoring locations active during reporting period.

Monitoring Location	Date Commissioned	Coordinates	Monitoring Parameters	Representative Control Site
Box Hill – Site Office	07 Jul 2023	Latitude: -37.817863° Longitude: 145.12187°	PM ₁₀	Alphington EPA monitoring station
Box Hill – East of Market Street	13 Jul 2023	Latitude -37.818073° Longitude: 145.1232°	PM ₁₀	Alphington EPA monitoring station
Burwood – 16 McComas Grove	18 May 2023	Latitude: -37.851494° Longitude: 145.1116°	PM ₁₀	Alphington EPA monitoring station
Burwood – Corner of McComas Grove and Sinnott Street	18 May 2023	Latitude: - 37.852413° Longitude: 145.11163°	PM ₁₀	Alphington EPA monitoring station
Monash – Site Office	16 October 2023	Latitude: -37.9024° Longitude: 145.13815°	PM ₁₀	Alphington EPA monitoring station

Monitoring Location	Date Commissioned	Coordinates	Monitoring Parameters	Representative Control Site
Clayton - CL69 – SiteHive 1	2 December 2023	Latitude: -37.922485 Longitude: 145.11914	PM ₁₀	Alphington EPA monitoring station
Heatherton – SSY – South	29 May 2023	Latitude: -37.955917° Longitude: 145.10239°	PM ₁₀	Dandenong EPA monitoring station

2.4 Data Limitations and Verification

The following limitations apply to this data:

- Meteorological conditions on site can affect measurements made by monitoring devices. For instance, dust measurements can be impacted by rainfall, fog and/or humidity (with water droplets in the air being mistaken as dust particles). Displaying periods of inclement weather allows reviewers to identify measurements that may have been impacted.
- The monitors that measure dust concentrations and noise are located within the construction site close to the nearest homes. However, the measured levels at the nearest homes and beyond are usually less than what is measured by the monitor. This is due to the monitor being located closer to the noise and dust source, due to the security requirements for the monitoring equipment.
- Monitors have been placed to record air quality and airborne noise at each site, however monitors may need to be moved as works progress.
- Breaks in data availability may occur due to sensor outages, instrument errors, technical issues, or removal of sensors during non-working periods to ensure the security of the equipment.

Data are provided in tabular and graphical form in Section 3 to visually present 24-hour averages of PM₁₀ over the monthly period. The data included in this report have been verified by the MC and relevant subject matter experts.

3. Results

Data are provided in graphical form below to visually present 24-hour averages of PM₁₀ dust concentration over the monthly period for each active construction site. Where the TARP has been implemented due to works occurring on the construction sites, an analysis is presented for discussion.

Monitoring across the majority of the Project was suspended when construction stopped during the holiday shutdown period from 22 December 2023 to 10 January 2024.

3.1. Box Hill



Figure 1: Box Hill air quality monitoring stations.

Table 4: Box Hill PM₁₀ results.

Monitor Number	Monitoring Location	Max Daily PM ₁₀ Concentration (µg/m ³)	Median Daily PM ₁₀ Concentration (µg/m ³)	Days TARP Implemented in the Month
-	Representative Background - Alphington	24.8	22.5	-
1	Site Office	25.7	15.7	0
2	East of Market Street	25.7	17.2	

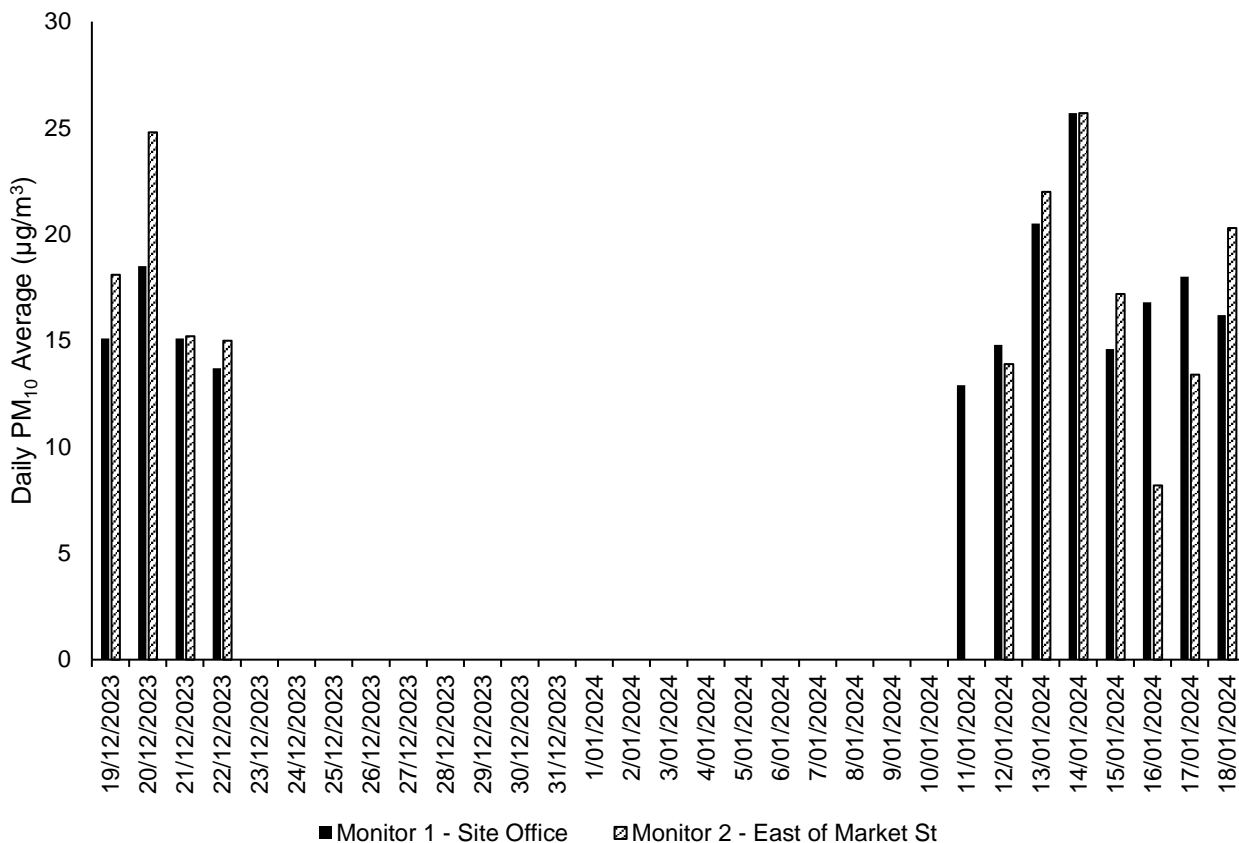


Figure 2: Box Hill PM₁₀ daily averages

3.1.1. Analysis

The maximum daily average PM₁₀ concentrations were 25.7 µg/m³ (n = 12)⁴ and 25.7 µg/m³ (n = 11)⁵ at the monitoring stations at the Box Hill Site Office (Monitor 1) and East of Market Street (Monitor 2), respectively. These average PM₁₀ concentration readings reflect that for the majority of the time the air quality is consistently good, as represented in Figure 2.

Due to the holiday shutdown period the monitors were disabled from the 22 December 2023 when construction stopped. Monitor 1 was reinstated on 11 January 2024 and Monitor 2 on 12 January 2024.

The TARP was not implemented during the reporting period as the trigger thresholds were not met. Where localised dust was being generated on site or had the potential to generate on site due to the demolition works, both appropriate proactive and reactive dust controls were employed. The water cart was used over sections of the site where dust was being generated (demolition extents, excavations or exposed surfaces). Hand watering via a hose was also utilised to provide targeted dust suppression in areas the water cart cannot reach.

This reporting period demonstrates the MC’s proactive response to dust control and maintaining air quality in the Box Hill precinct.

⁴ n = the number of days of monitoring data captured in the monitoring period for Monitor 1

⁵ n = the number of days of monitoring data captured in the monitoring period for Monitor 2

3.2. Burwood

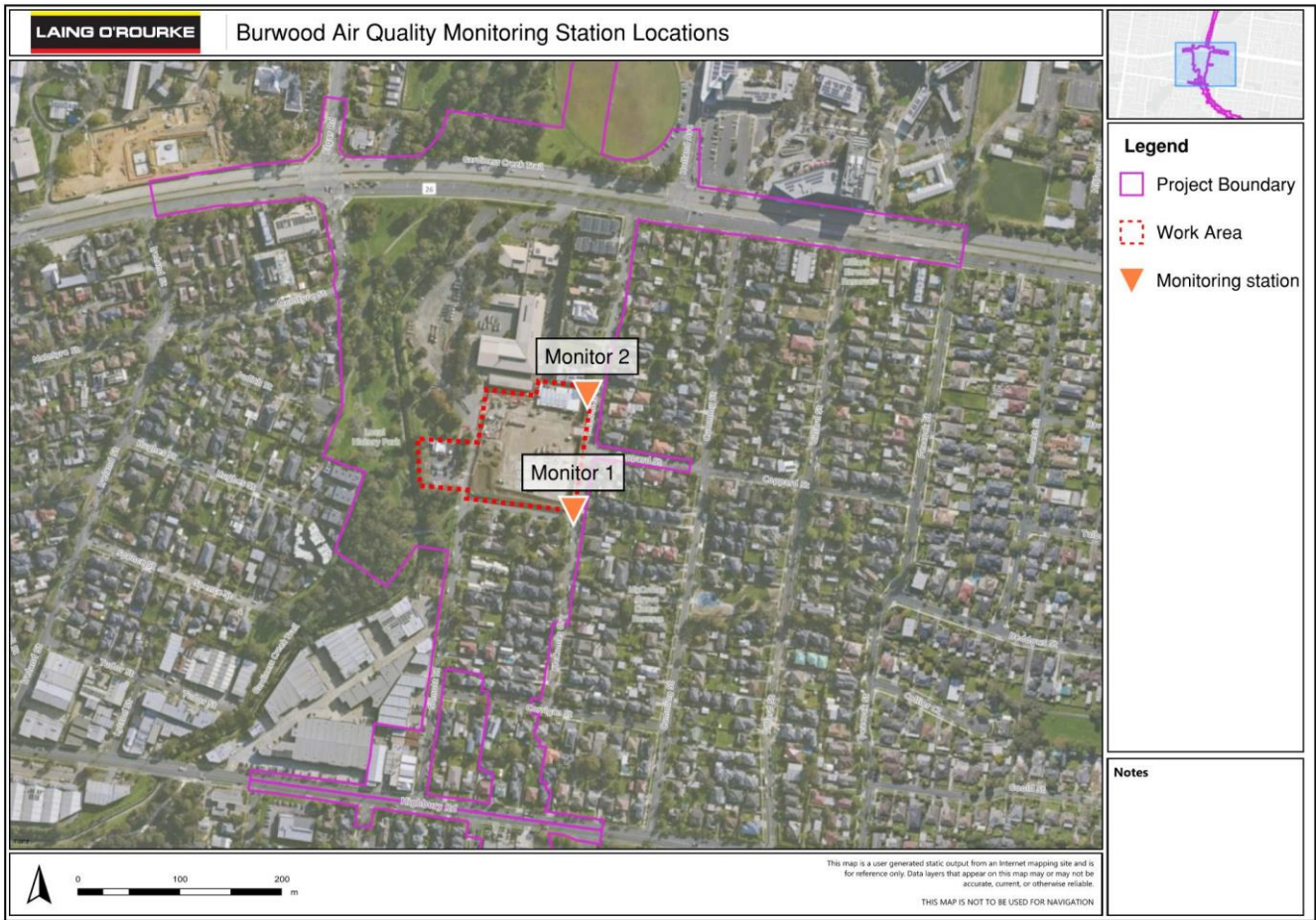


Figure 3: Burwood air quality monitoring stations.

Table 5: Burwood PM₁₀ results.

Monitor Number	Monitoring Location	Max Daily PM ₁₀ Concentration (µg/m ³)	Median Daily PM ₁₀ Concentration (µg/m ³)	Days TARP Implemented in the Month
-	Representative Background - Alphington	24.8	22.5	-
1	Corner of McComas Grove and Sinnott Street	25.7	12.8	0
2	16 McComas Grove	24.8	10.6	

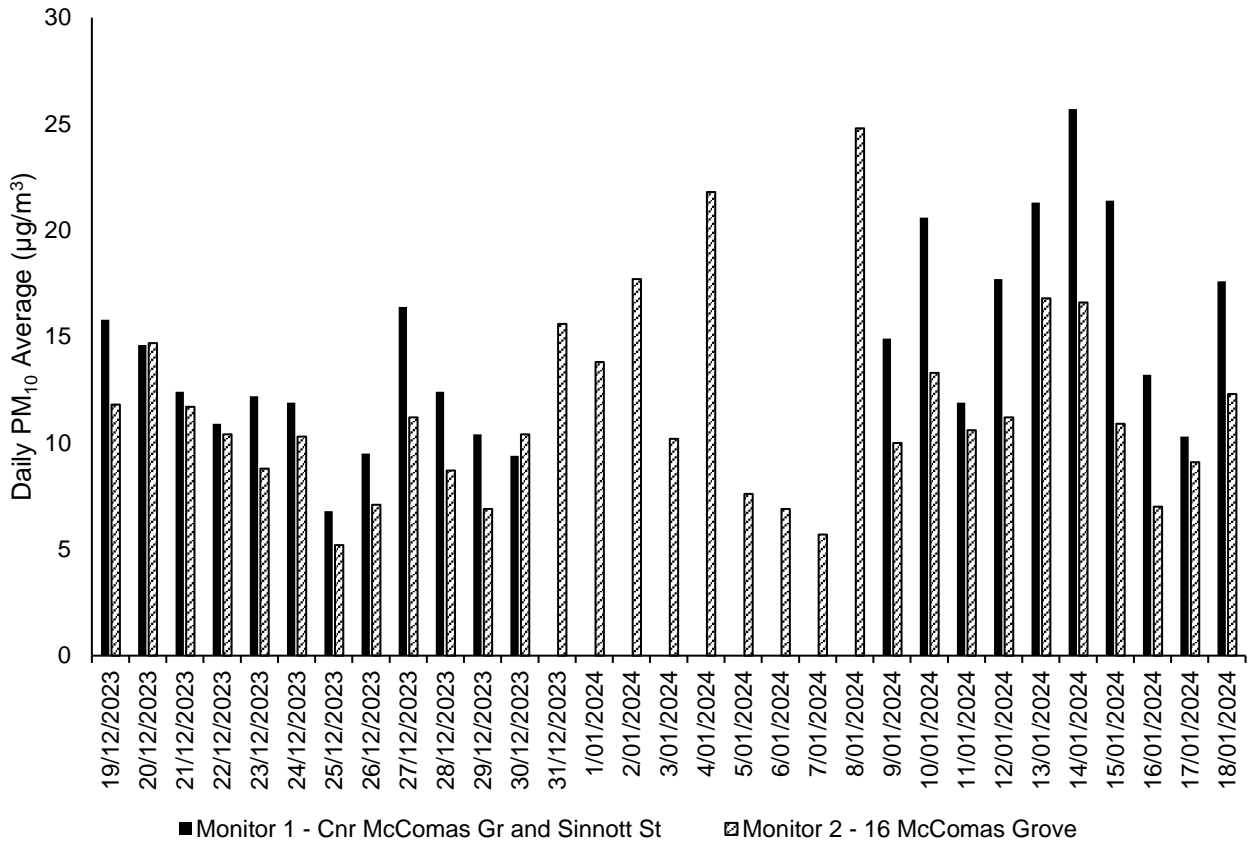


Figure 4: Burwood PM₁₀ daily averages

3.2.1. Analysis

The maximum daily average PM₁₀ concentrations were 25.7 µg/m³ (n = 22) and 24.8 µg/m³ (n = 31) at the monitoring stations at the corner of McComas Grove and Sinnott Street (Monitor 1) and at 16 McComas Grove (Monitor 2), respectively. Monitors at Burwood were not decommissioned prior to the holiday shutdown as these monitors are placed in secure locations and were not identified to be at risk of theft.

Prior to the holiday shutdown period, adhesive was applied to the site to bind the soil together to reduce dust generation. The TARP was not required to be implemented as the air quality during the reporting period was consistently good, demonstrating the MC’s proactive response to dust control and maintaining air quality in the Burwood precinct.

3.3. Monash

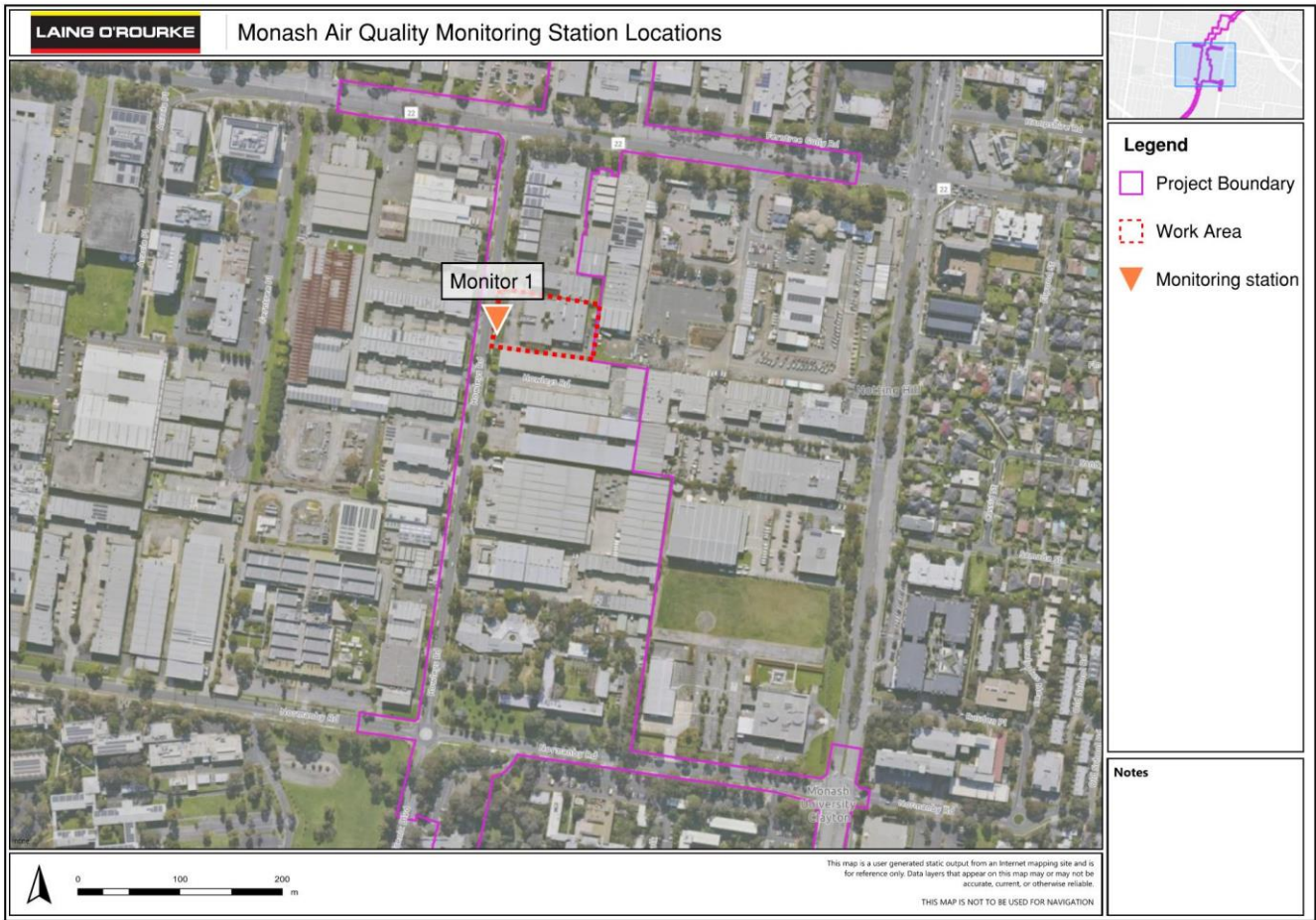


Figure 5: Monash air quality monitoring stations.

Table 6: Monash PM₁₀ results.

Monitor Number	Monitoring Location	Max Daily PM ₁₀ Concentration (µg/m ³)	Median Daily PM ₁₀ Concentration (µg/m ³)	Days TARP Implemented in the Month
-	Representative Background - Alphington	24.8	22.5	-
1	Site Office	25.7	15.8	0

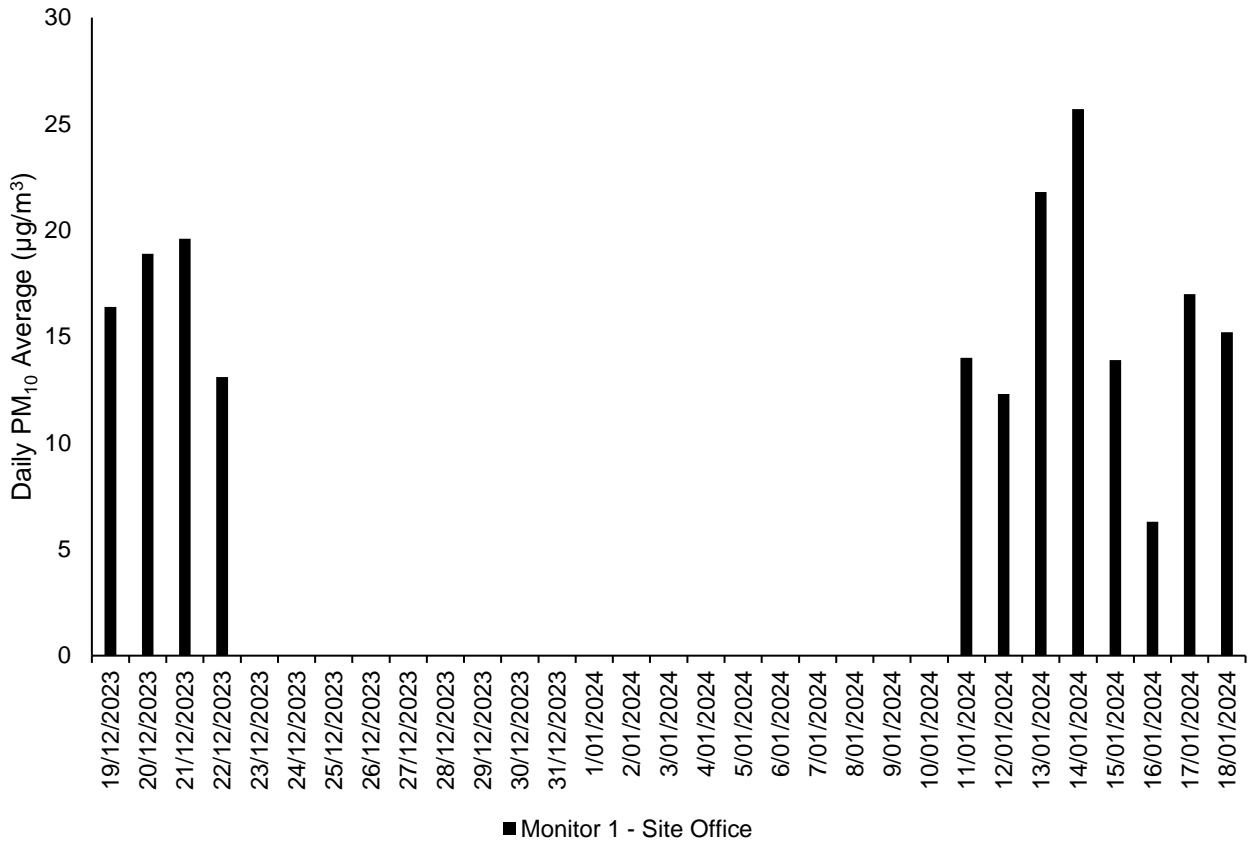


Figure 6: Monash PM₁₀ daily averages

3.3.1. Analysis

The maximum daily average PM₁₀ concentration was 25.7 µg/m³ at the Site Office (Monitor 1), see figure 6. Due to the holiday shutdown period the monitors were disabled from 23 December 2023 to 10 January 2024 because construction stopped during this period.

The TARP was not implemented during the reporting period because the trigger thresholds were not met. This was due to both appropriate proactive and reactive dust controls being employed. There was minimal wind experienced due to the properties surrounding site acting as a wind barrier. Additionally, the site has minimal areas of exposed soils, soils currently reside only in garden beds suppressed by grass or existing flora. Any demolition generated dust was suppressed using water hoses. This reporting period demonstrates the MC's proactive response to dust control and maintaining air quality in the Monash precinct.

3.4. Clayton



Figure 7: Clayton air quality monitoring stations.

Table 7: Clayton PM₁₀ results.

Monitor Number	Monitoring Location	Max Daily PM ₁₀ Concentration (µg/m ³)	Median Daily PM ₁₀ Concentration (µg/m ³)	Days TARP Implemented in the Month
-	Representative Background - Alphington	24.8	22.5	-
1	CL69 – SiteHive 1	32.6	21.1	0

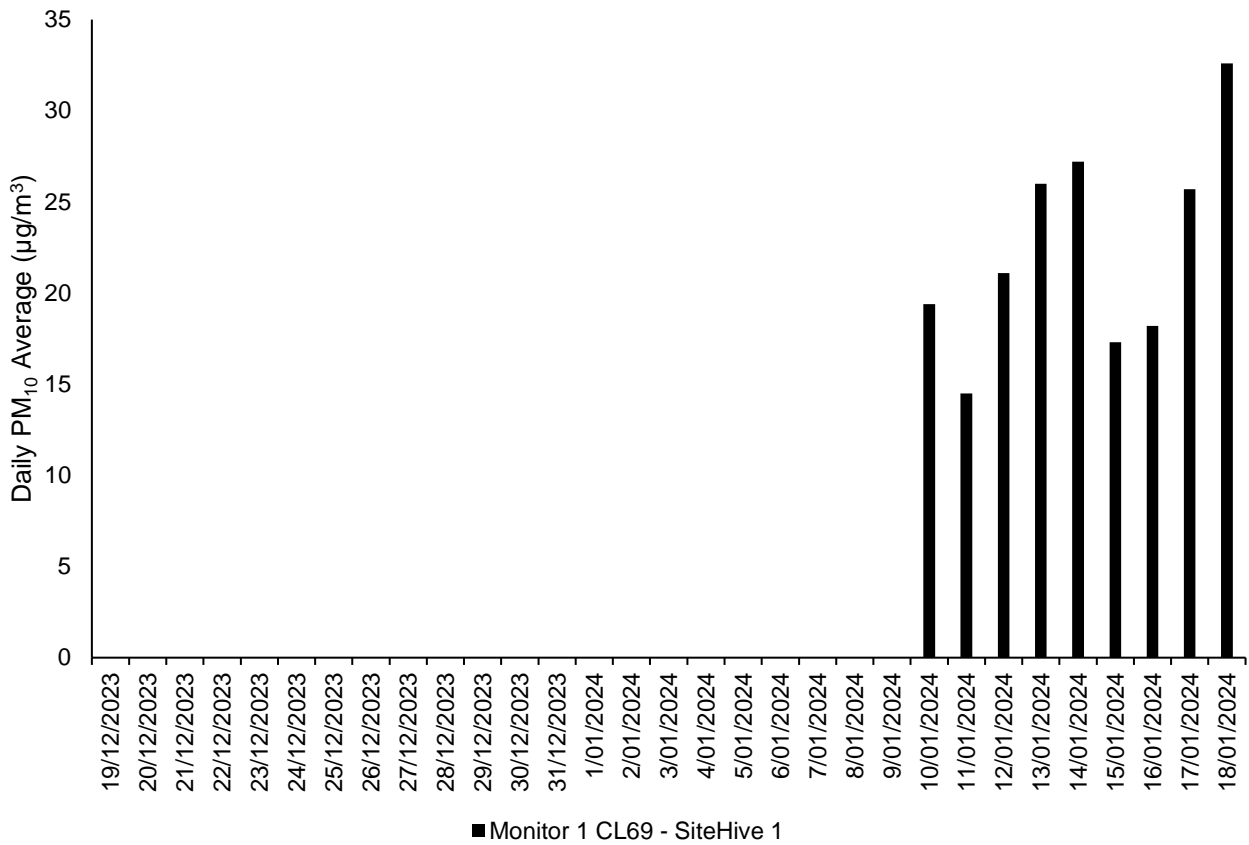


Figure 8: Clayton PM₁₀ daily averages

3.4.1. Analysis

The maximum daily average PM₁₀ concentration was 32.6 µg/m³ at the CL69 Site (Monitor 1), see Figure 8. Due to the holiday shutdown period the monitors were disabled when construction stopped from 19 December 2023 to 10 January 2024. The CL69 SiteHive was decommissioned slightly earlier due to the risk of theft while we secured a new location.

The TARP was not required during the reporting period as the trigger thresholds were not met. This was due to both appropriate proactive and reactive dust controls being employed, such as the use of handheld hose water as a suppressant during demolition works and retaining existing grass and vegetation. As the demolition in this period only involved a single residential building, the site is still surrounded by commercial and residential properties acting as a wind barrier. The site has not been deemed as a high-risk area for dust, which will be continually evaluated as demolition progresses and controls to suppress dust implemented as required. This reporting period demonstrates the MC's proactive response to dust control and maintaining air quality in the Clayton precinct.

3.5. Heatherton

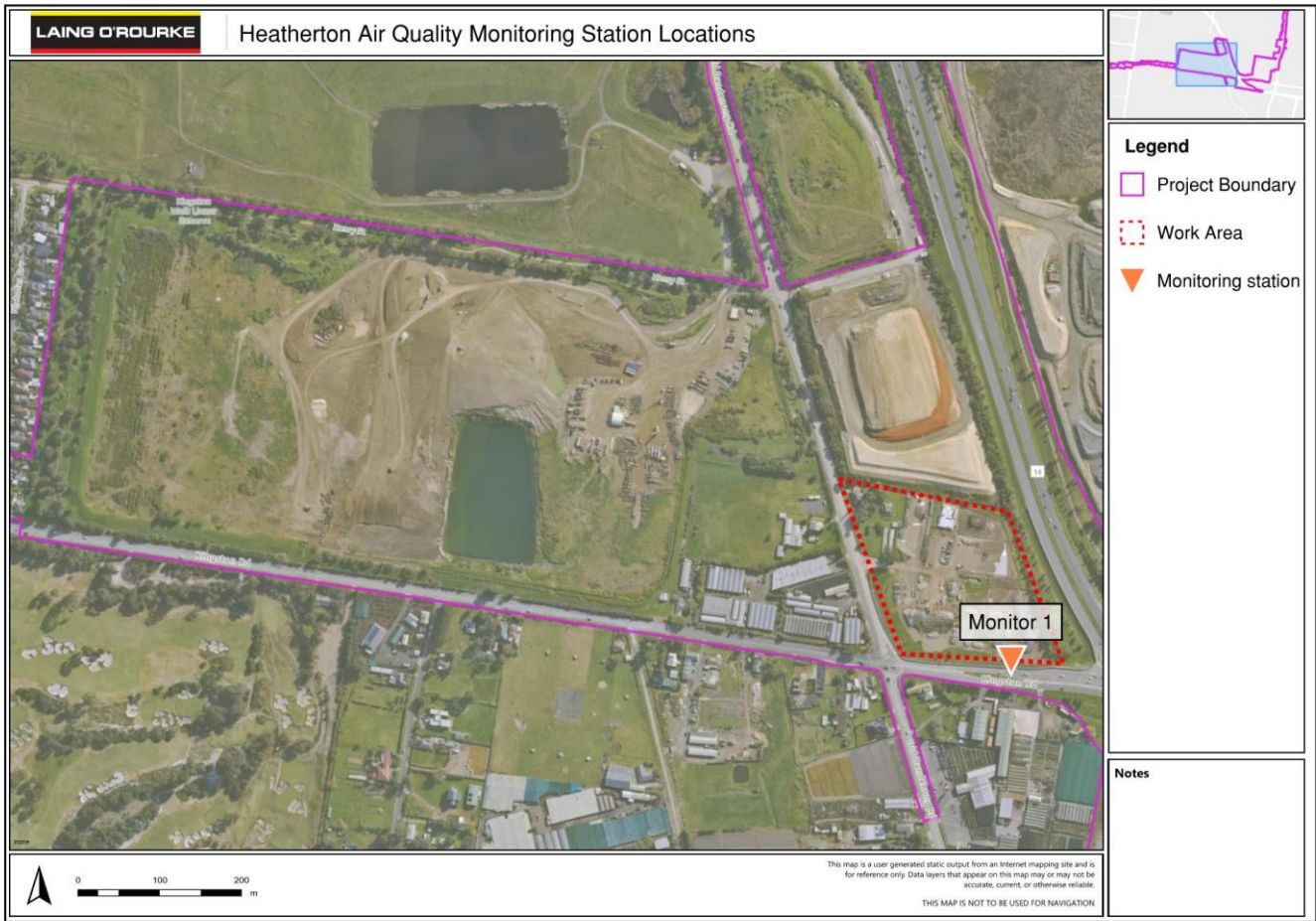


Figure 9: Heatherton air quality monitoring stations.

Table 8: Heatherton PM₁₀ results.

Monitor Number	Monitoring Location	Max Daily PM ₁₀ Concentration (µg/m ³)	Median Daily PM ₁₀ Concentration (µg/m ³)	Days TARP Implemented in the Month
-	Representative Background - Dandenong	22.5	16.1	-
1	SSY - South	24.4	18.2	0

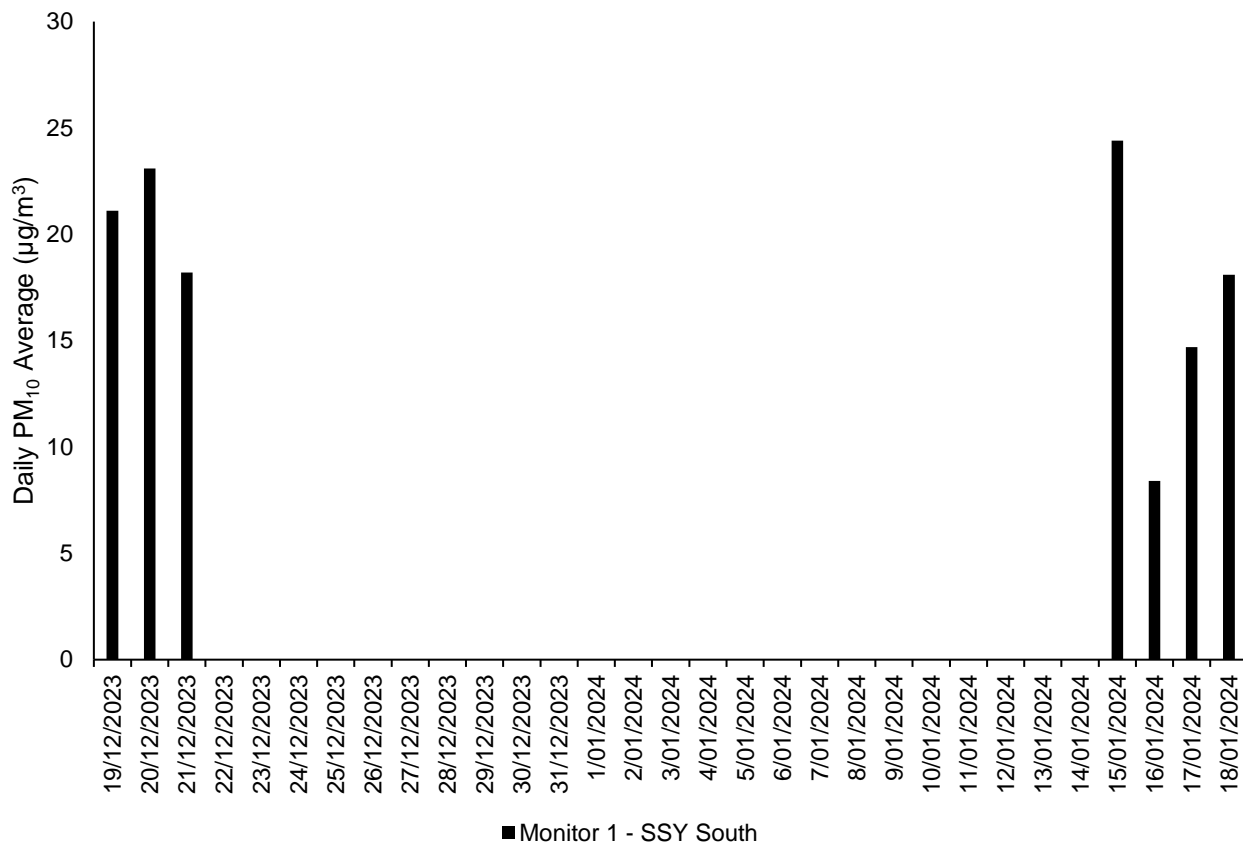


Figure 10: Heatherton PM₁₀ daily averages

3.5.1. Analysis

The maximum daily average PM₁₀ concentration was 24.4 µg/m³ at the monitoring station in the southern boundary of the site (Monitor 1).

Prior to the holiday shutdown period, adhesive was applied to the site to bind the soil together to reduce dust generation. The TARP was not required to be implemented as the air quality during the reporting period consistently met objectives, despite a low number of working days within the reporting period, demonstrating the MC’s proactive response to dust control and maintaining air quality in the Heatherton precinct. Ground disturbing works did not re-commence at Heatherton until 15 January 2024, hence monitoring commenced from this date.

3.6. Meteorological Conditions

Table 9: Daily weather observations for Melbourne (Olympic Park), Victoria December 19 2023 – January 18 2024. Data Source BOM.

Statistic	Min Temperature (°C)	Max Temperature (°C)	Maximum Wind Gust Direction	Maximum Wind Gust Speed (km/h)	Relative Humidity @ 9:00 AM (%)
Mean	16.3	24.2	N/A	N/A	71.8
Lowest	12.6	19.0	S	30	44.0
Highest	21.4	33.4	SE	44	100.0

Table 10: Daily rain data for Melbourne (Olympic Park), Victoria December 19 2023 – January 18 2024. Data Source BOM.

Statistic	Rain (mm)
Daily Low	0.0
Daily High	37.8
Total	143.2

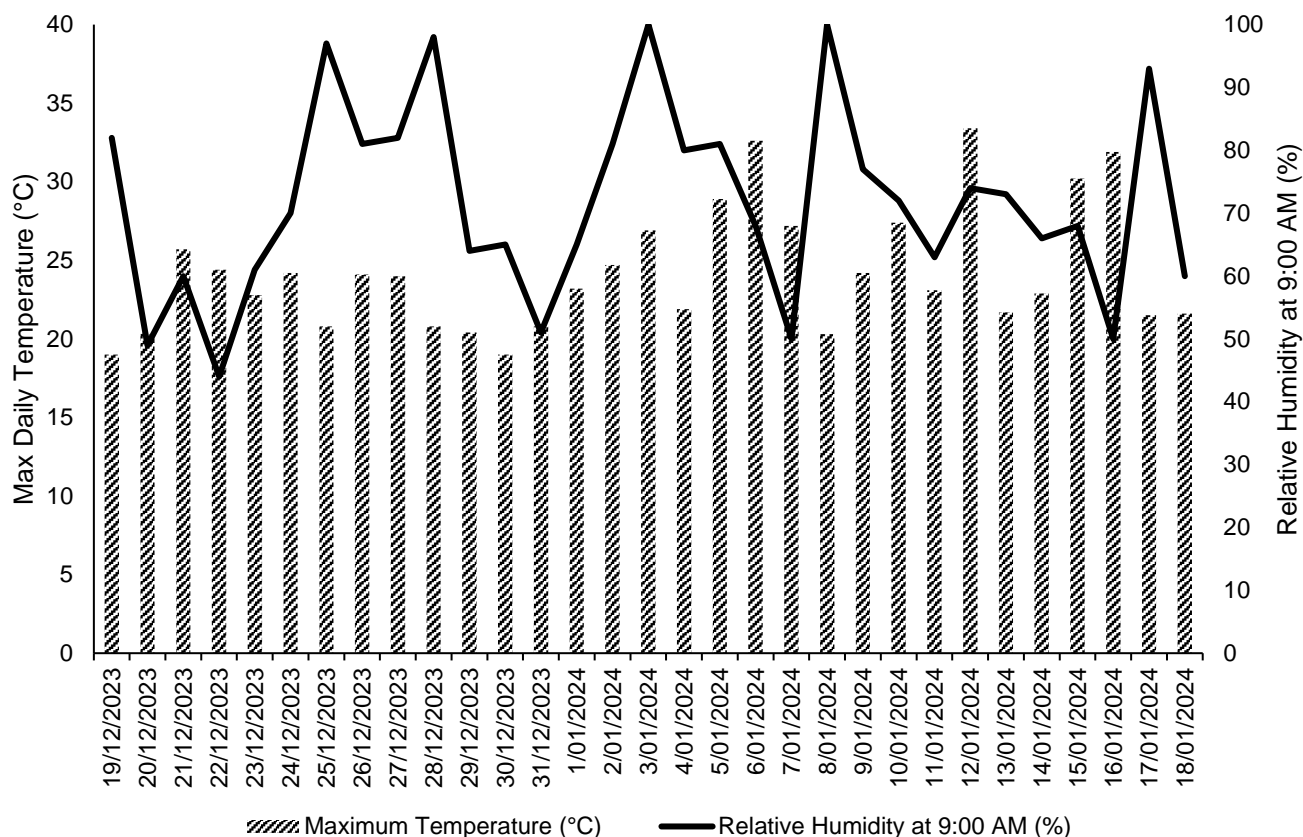


Figure 11: Daily relative humidity and temperature observations for Melbourne (Olympic Park), Victoria December 19 2023 – January 18 2024. Data Source BOM.

4. Quality Assurance

4.1. Data Capture

Data capture is defined as the number of valid data periods collected divided by the number of available data periods. Valid data excludes period where the instrument is unavailable due to calibration and maintenance and excludes periods where the data has been rejected due to quality assurance/data validation procedures.

Data capture statistics for the reporting period 19 December 2023 to 18 January 2024 are shown in Table 11, below. Monitoring across the majority of the Project was suspended when construction stopped during the holiday shutdown period from 22 December 2023 to 10 January 2024.

Data capture statistics were 100% for all parameters at all stations for the reporting period, with the exception of the following:

- In Box Hill, both monitoring points were decommissioned and kept in storage over the holiday shutdown period from 23 December 2024 to prevent theft. Monitor 1 was reinstated on 11 January 2024 and Monitor 2 was reinstated on 12 January 2024 as the Box Hill site became operational following the Rostered Days Off.
- In Burwood the monitor on the corner of McComas Grove and Sinnott Street went offline for nine days due to a technical error with the solar unit. The monitor was offline during the MC's shutdown period and therefore didn't impact on monitoring of the Burwood site during construction. The battery was replaced once workers returned to the site after the holiday shutdown. Monitors at Burwood were not decommissioned prior to the holiday shutdown as these monitors are placed in secure locations and were not identified to be at risk of theft.
- In Monash the site office SiteHive was decommissioned due to the holiday shutdown period from 23 December to 10 January 2024.
- In Clayton the CL69 monitor was decommissioned prior to the holiday shutdown period and was offline from 19 December 2023 to 10 January 2024. The early decommissioning of this monitoring station is attributable to security concerns on the site following the theft of another monitoring station. It was then reinstated on 10 January 2024.

- In Heatherton, the previously referenced northern monitor was not installed during this reporting period as it is being replaced due to a technical issue. The southern monitor was decommissioned and kept in storage over the holiday shutdown period from 22 December 2023 to 15 January 2024.

Table 11: Air quality monitoring, data capture summary

Location	Parameter	Averaging Period	Collected Periods	Available Periods	Data Capture
Box Hill – Site Office	PM ₁₀	24-hours	12	31	39%
Box Hill – East of Market Street	PM ₁₀	24-hours	11	31	35%
Burwood – 16 McComas Grove	PM ₁₀	24-hours	31	31	100%
Burwood – Corner of McComas Grove and Sinnott Street	PM ₁₀	24-hours	22	31	71%
Monash – Site Office	PM ₁₀	24-hours	12	31	39%
Clayton - CL69 – SiteHive 1	PM ₁₀	24-hours	9	31	29%
Heatherton – SSY – South	PM ₁₀	24-hours	4	31	13%

4.2. Data Validation

Data contained in this report has been validated against performance and calibration requirements for each instrument. Data during commissioning, maintenance and calibration periods has been removed from the validated data sets.

Table 12: Monitoring device calibration information.

Location	Device Serial Number	Calibration Date	Calibration Due
Box Hill – Site Office	HEX-000407	29 Aug 2023	29 Aug 2025
Box Hill – East of Market Street	HEX-000339	19 Apr 2023	19 Apr 2025
Burwood – 16 McComas Grove	HEX-000385	29 Aug 2023	29 Aug 2025
Burwood – Corner of McComas Grove and Sinnott Street	HEX-000308	03 Apr 2023	03 Apr 2025
Monash – Site Office	HEX-000418	29 Aug 2023	29 Aug 2025
Clayton - CL69 – SiteHive 1	HEX-000139	22 Nov 2023	22 Nov 2025
Heatherton – SSY – South	HEX-000050	21 Apr 2023	21 Apr 2025