

Ground Level Particulate Notification Report - 11 June, 2020

Adelaide Brighton Cement, Birkenhead Works
62 Elder Road, Birkenhead, SA 501
EPA Licence No: 1126

Summary

The 24-hour average particulate matter monitoring data collected at the Community Park and Gunn Street monitoring sites during 11 June, 2020 is shown in [Table 1](#) below. The data indicates that:

- The 24-hour average PM_{2.5} concentration measured at Community Park of 30.4 µg/m³ exceeded the EPP Air criterion of 25 µg/m³
- The 24-hour average PM_{2.5} concentration measured at Gunn Street of 27.2 µg/m³ exceeded the EPP Air criterion of 25 µg/m³

Table 1: Monitoring Summary

Monitoring Location	Pollutant	24-hour average (µg/m ³)	EPP Air Criterion (µg/m ³)
Community Park	PM ₁₀	34.2	50
	PM _{2.5}	30.4	25
Gunn Street	PM ₁₀	28.1	50
	PM _{2.5}	27.2	25

The 24-hour average PM_{2.5} concentration measured at Community Park of 30.4 µg/m³ and Gunn Street of 27.2 µg/m³, exceeded the EPP Air criterion of 25.0 µg/m³. All ABC monitors (on site and off site), showed similar particulate levels and trends. This indicates the particulate level was from a localised airshed condition, rather than related to any specific site activity. Elevated levels of particulate in the early hours of the morning dropped during the day before starting to rise early in the evening to elevated levels. PM_{2.5} is commonly produced from combustion sources. Given the cold air temperatures, low wind speeds, reduced air shed flushing, the PM_{2.5} particulate levels and trends are indicative of the increased use of domestic wood heaters at this time of the year. Unfortunately EPA monitoring data was unavailable at the time of preparing this report

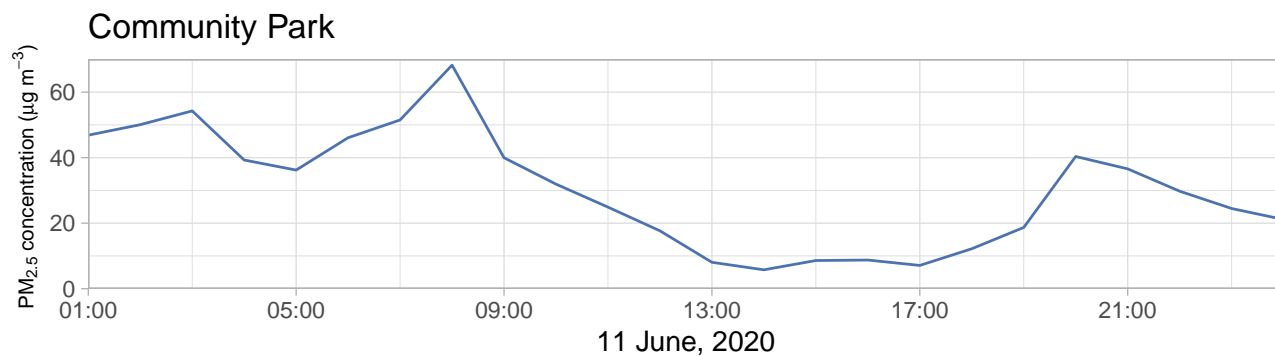
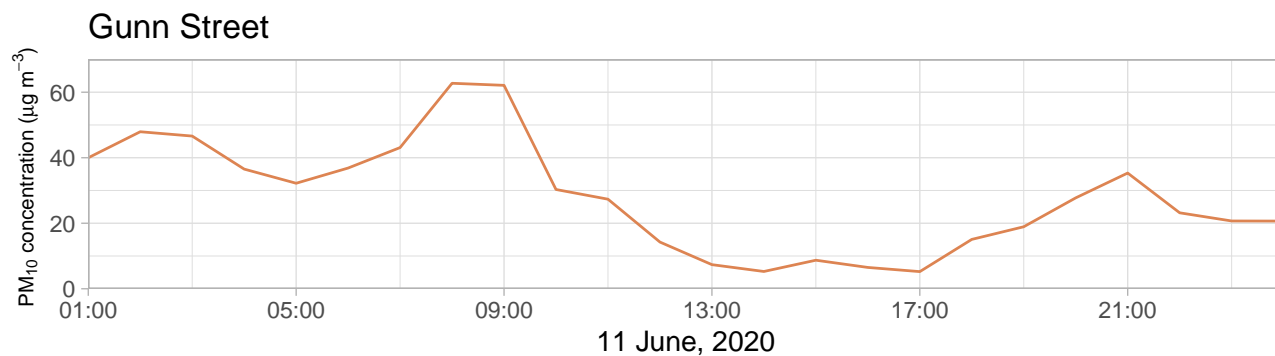
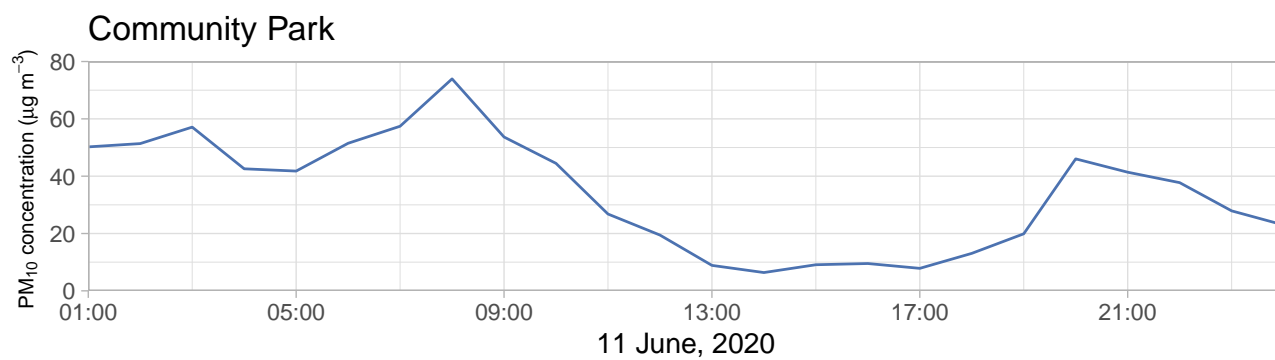
Community Monitoring

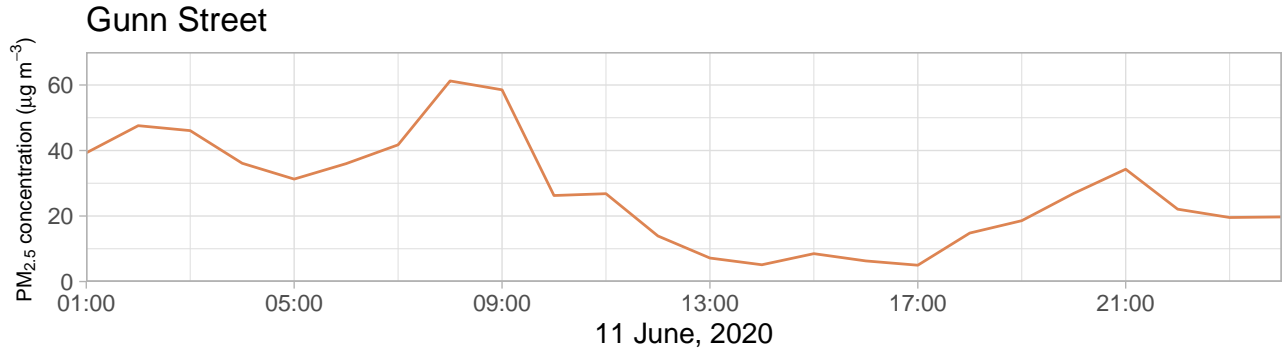
Monitoring data collected at the community monitoring sites is presented in this section.

The table below shows the proportion of PM₁₀ and PM_{2.5} measured at each monitor, according to the average wind direction at the time of monitoring.

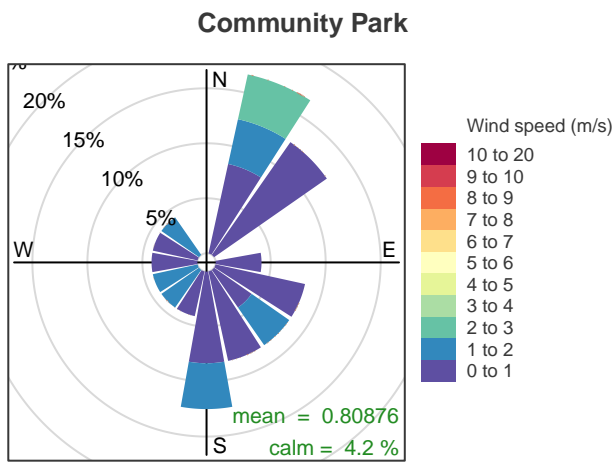
Monitoring Location	Direction	PM ₁₀ proportion (%)	PM _{2.5} proportion (%)
Community Park	From direction of ABC (WD < 180)	79	78
Community Park	From other direction (WD > 180)	21	22
Gunn Street	From direction of ABC (WD < 180)	75	75
Gunn Street	From other direction (WD > 180)	25	25

The figures below show the time series of 1-hour average measurements throughout 11 June, 2020

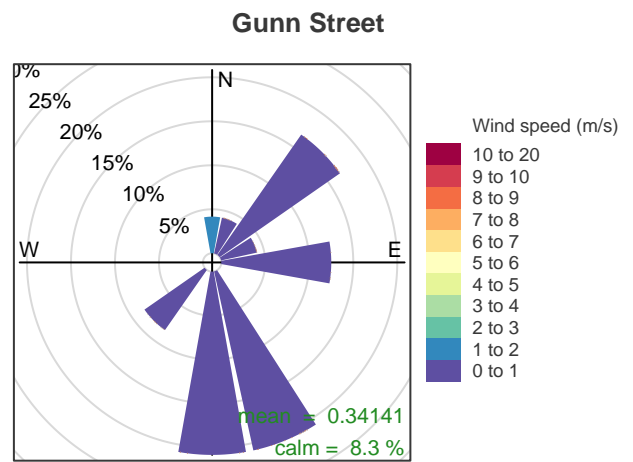




The figures below show wind roses summarising the period 11 June, 2020.



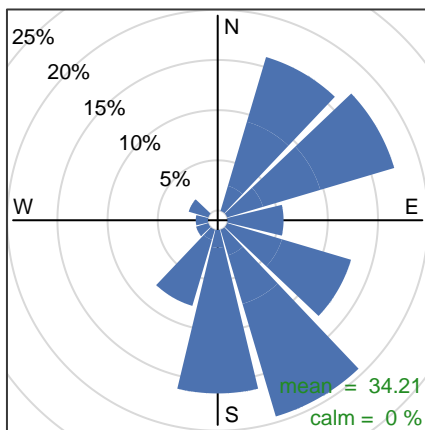
Frequency of counts by wind direction (%)



Frequency of counts by wind direction (%)

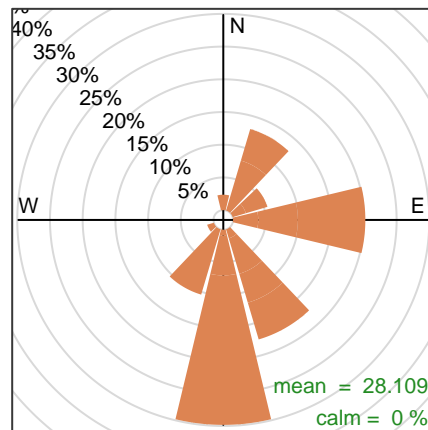
The figures below show dust roses summarising the period 11 June, 2020

Community Park – PM₁₀



Proportion contribution to the mean (%)

Gunn Street – PM₁₀



Proportion contribution to the mean (%)

Recent air quality data measured by ABC or EPA is indicative only and may be affected by instruments not working correctly, power failures and the like. Data is published directly from the monitors and will be validated at a later date.