

Ground Level Particulate Notification Report - 20 June, 2021

Adelaide Brighton Cement, Birkenhead Works
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EPA Licence No: 1126

Summary

The 24-hour average particulate matter monitoring data collected at the Community Park and Gunn Street monitoring sites during 20 June, 2021 is shown in [Table 1](#) below. The data indicates that:

- The 24-hour average PM_{2.5} concentration measured at Community Park of 26.5 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	28.3	50
	PM _{2.5}	26.5	25
Gunn Street	PM ₁₀	20.5	50
	PM _{2.5}	20.1	25

The 24-hour average PM_{2.5} concentration measured at Community Park of 26.5 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. Low wind speeds and overnight temperatures resulted in a localised surface temperature inversion that was visible with foggy conditions about 1.2km wide band roughly centered along the Port River. These conditions resulted in increased particulate levels overnight/early morning, which then dropped during the day as wind speed and temperature increased. PM_{2.5} particulate is commonly produced from combustion sources (vehicles/heaters). Low night time temperature, low wind speed, reduced air shed flushing, the PM_{2.5} particulate levels/trends are indicative of surface temperature inversion and use of domestic wood heaters at this time of the year.

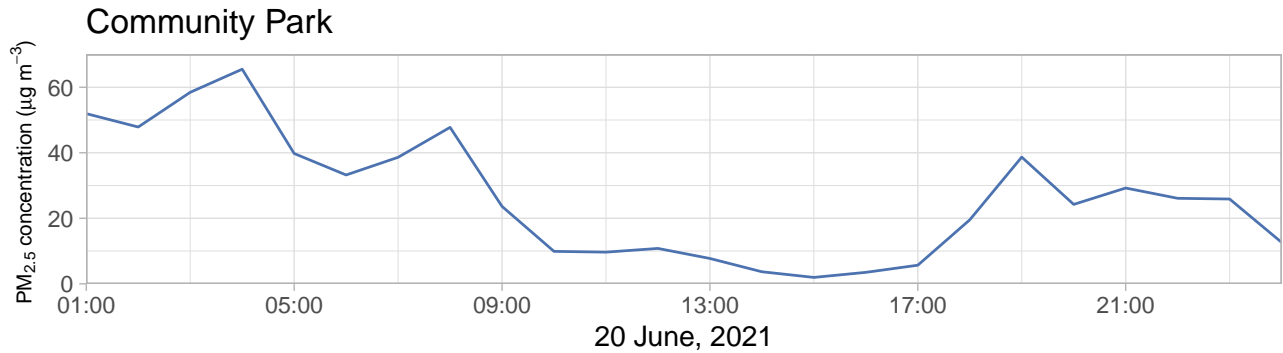
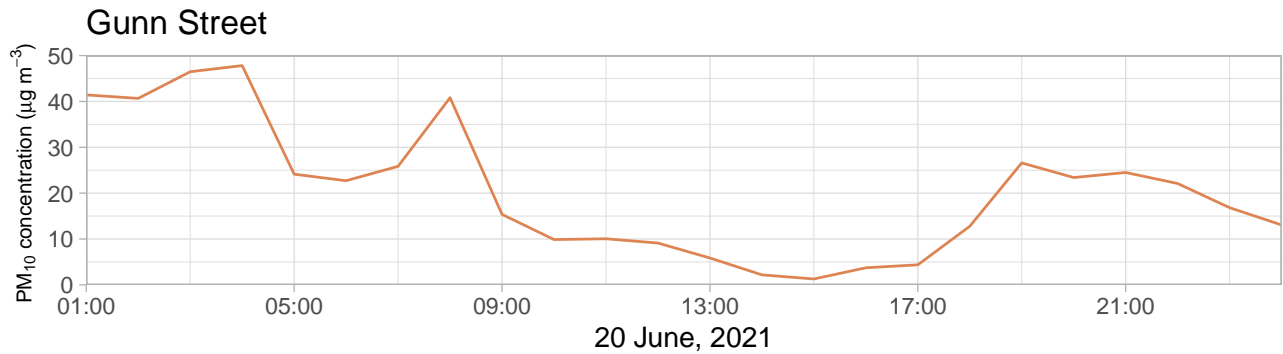
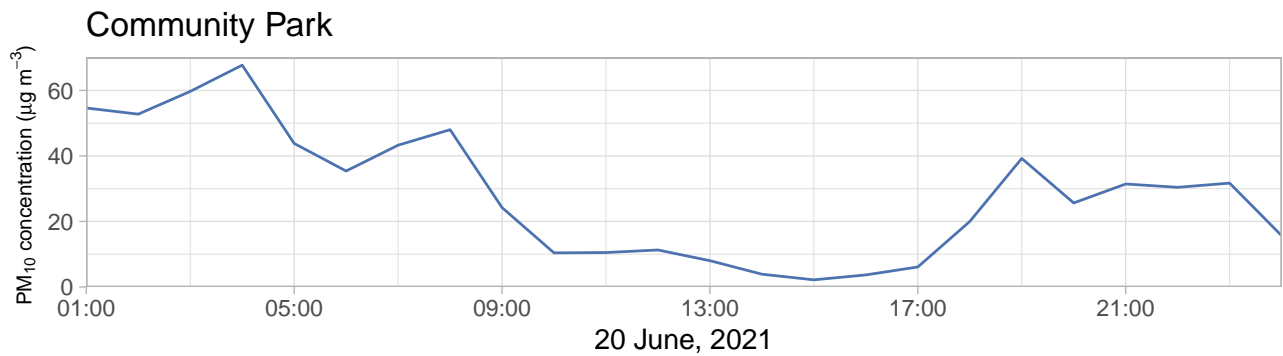
Community Monitoring

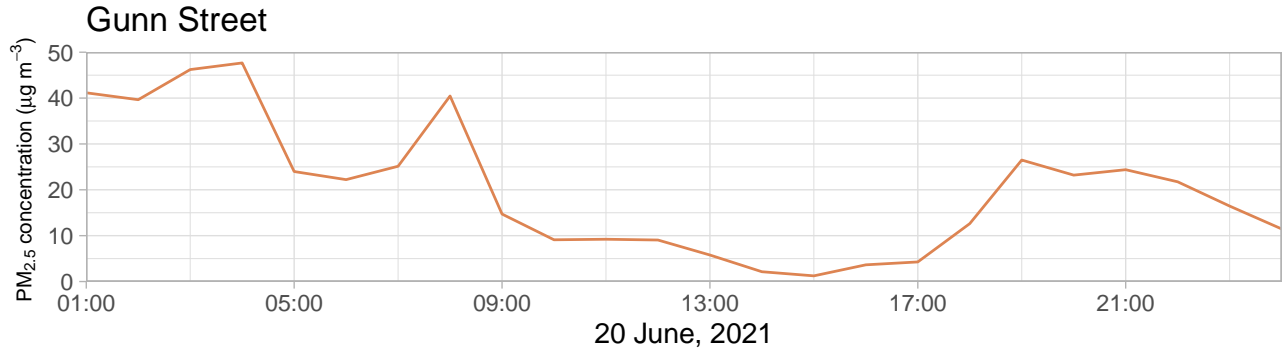
Monitoring data collected at the community monitoring sites is presented in this section.

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.

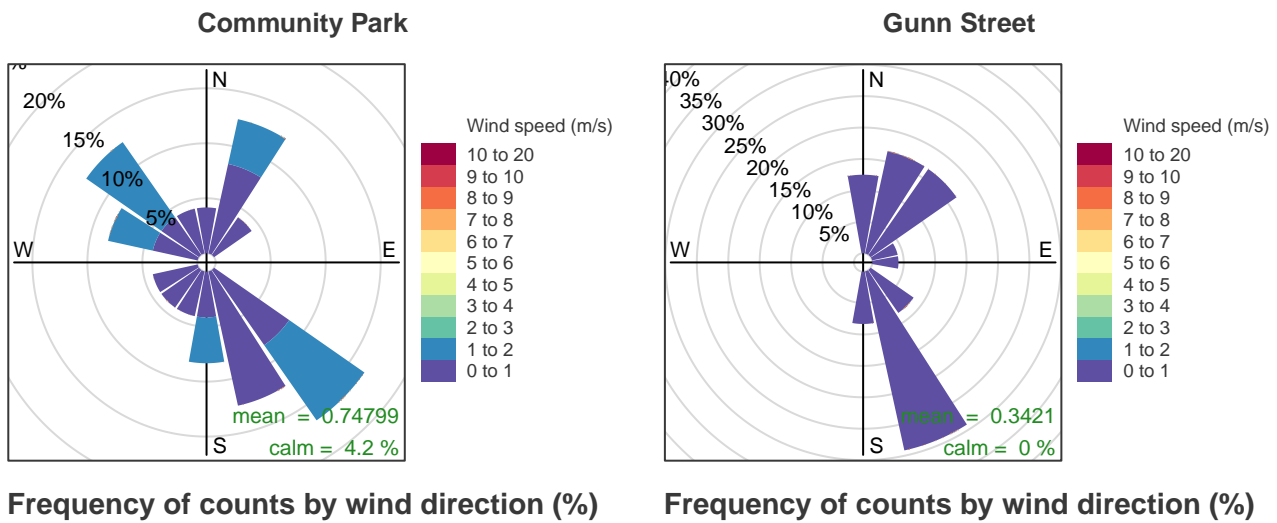
Monitoring Location	Direction	PM ₁₀ proportion (%)	PM _{2.5} proportion (%)
Community Park	From direction of ABC (WD < 180)	61	60
Community Park	From other direction (WD > 180)	39	40
Gunn Street	From direction of ABC (WD < 180)	100	100

The figures below show the time series of 1-hour average measurements throughout 20 June, 2021

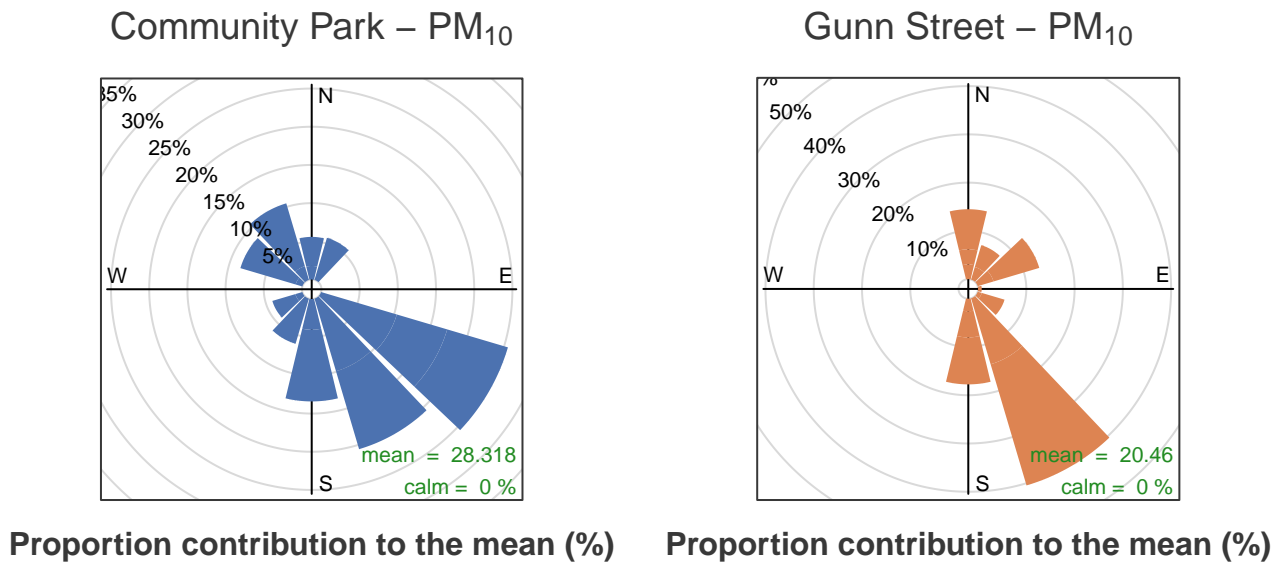




The figures below show wind roses summarising the period 20 June, 2021.



The figures below show dust roses summarising the period 20 June, 2021



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.