

# Ground Level Particulate Notification Report - 14 July, 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 14 July, 2020 is shown in [Table 1](#) below. The data indicates that:

- The 24-hour average PM<sub>2.5</sub> concentration measured at Community Park of 42.5 µg/m<sup>3</sup> exceeded the EPP Air criterion of 25 µg/m<sup>3</sup>
- The 24-hour average PM<sub>2.5</sub> concentration measured at Gunn Street of 30.1 µg/m<sup>3</sup> exceeded the EPP Air criterion of 25 µg/m<sup>3</sup>

**Table 1: Monitoring Summary**

Monitoring Location	Pollutant	24-hour average (µg/m <sup>3</sup> )	EPP Air Criterion (µg/m <sup>3</sup> )
Community Park	PM <sub>10</sub>	44.7	50
	PM <sub>2.5</sub>	42.5	25
Gunn Street	PM <sub>10</sub>	30.3	50
	PM <sub>2.5</sub>	30.1	25

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.

Air with high relative humidity (~ 97%), and temperature lower than the dew point, combined with calm to light wind conditions creating fog that persisted from early morning, gradually dispersing towards midday as air temperatures increased and then reformed early evening. Conditions favourable for fog formation are also favourable for increased particulate levels, as there is reduced flushing of the air shed. The PM<sub>2.5</sub> particulate levels and trends are indicative of combustion sources such as traffic, and increased use of domestic wood heaters at this time of the year. ABC notes that the clinker kiln plant was shut down at 9 am on the 13/7/2020 for several days for maintenance.

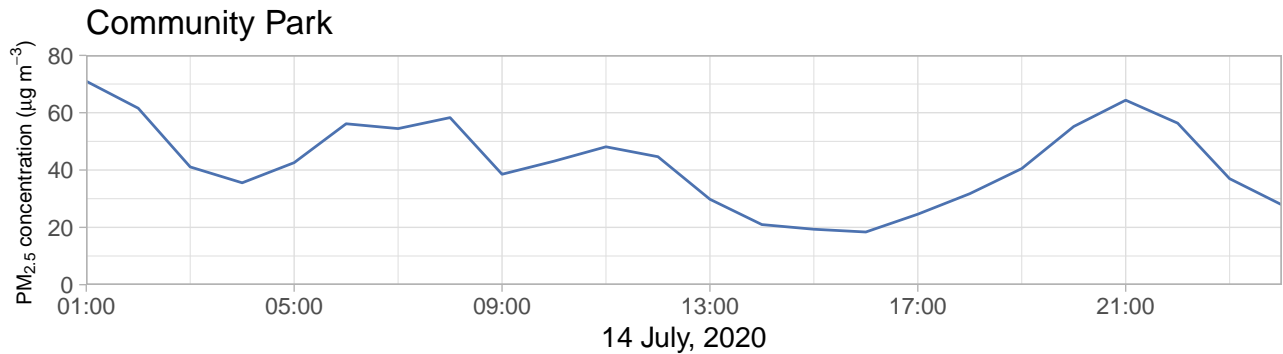
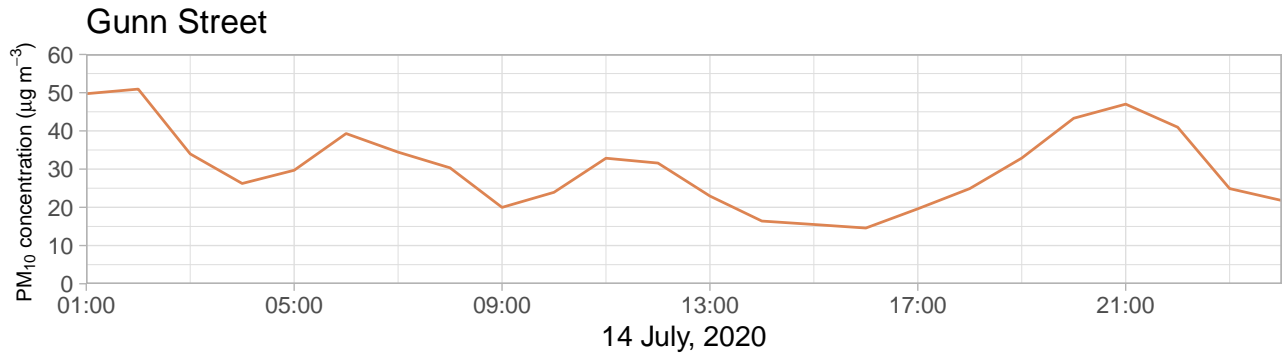
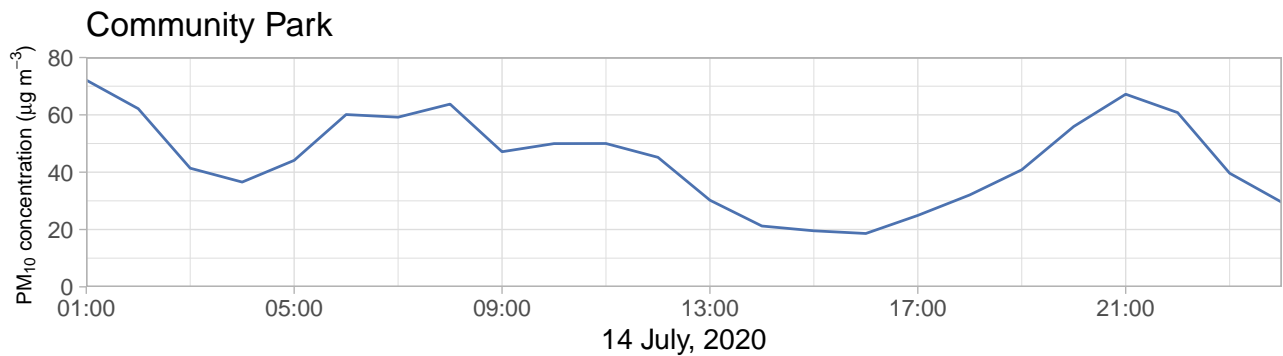
## Community Monitoring

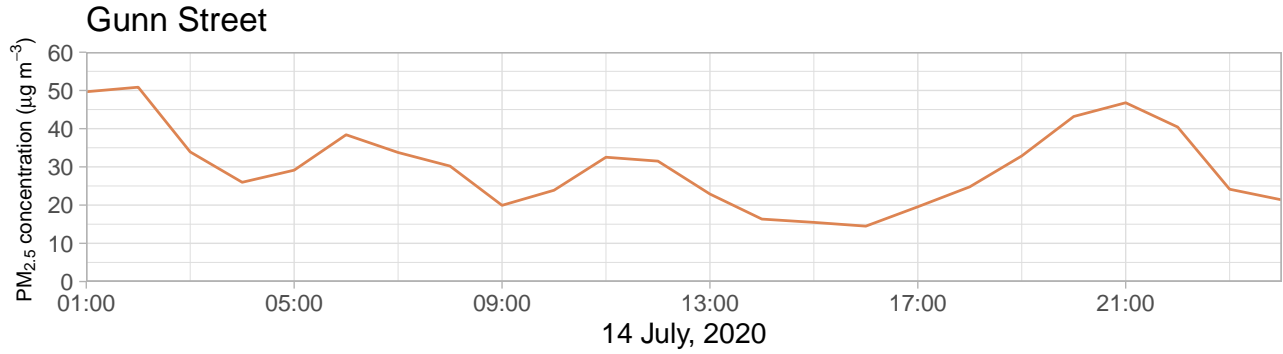
Monitoring data collected at the community monitoring sites is presented in this section.

The table below shows the proportion of PM<sub>10</sub> and PM<sub>2.5</sub> measured at each monitor, according to the average wind direction at the time of monitoring.

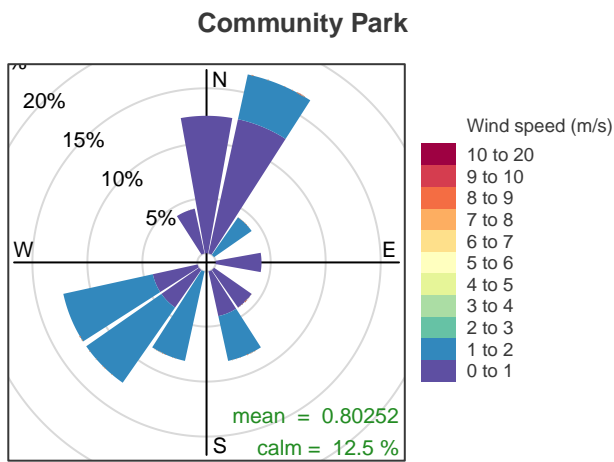
Monitoring Location	Direction	PM <sub>10</sub> proportion (%)	PM <sub>2.5</sub> proportion (%)
Community Park	From direction of ABC (WD < 180)	67	67
Community Park	From other direction (WD > 180)	33	33
Gunn Street	From direction of ABC (WD < 180)	93	93
Gunn Street	From other direction (WD > 180)	7	7

The figures below show the time series of 1-hour average measurements throughout 14 July, 2020

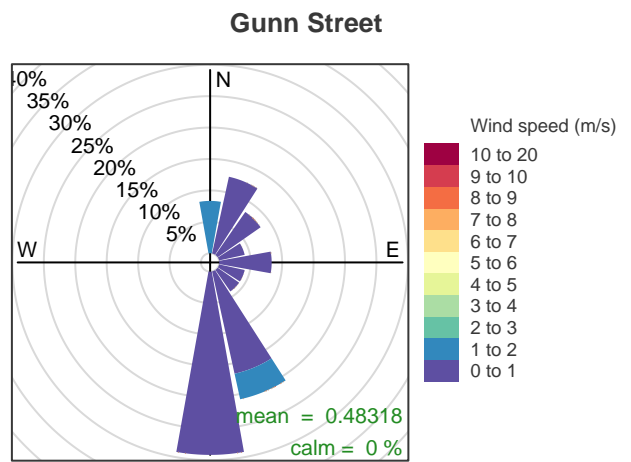




The figures below show wind roses summarising the period 14 July, 2020.



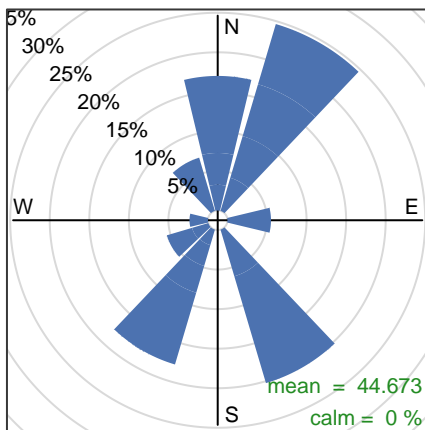
Frequency of counts by wind direction (%)



Frequency of counts by wind direction (%)

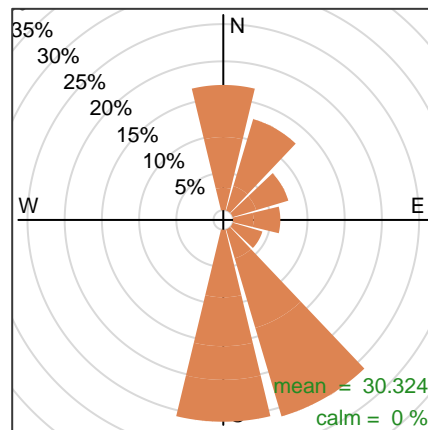
The figures below show dust roses summarising the period 14 July, 2020

### Community Park – PM<sub>10</sub>



Proportion contribution to the mean (%)

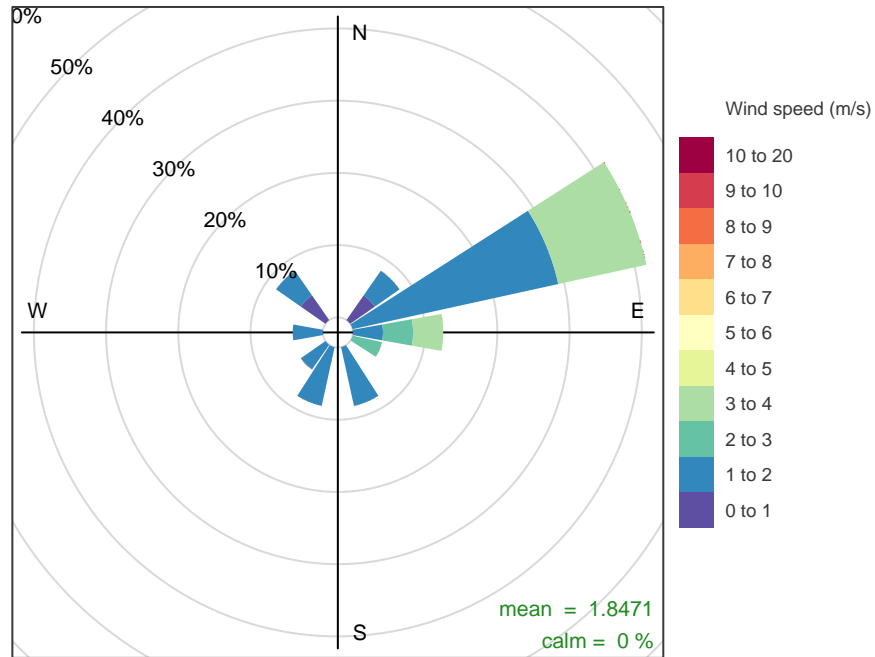
### Gunn Street – PM<sub>10</sub>



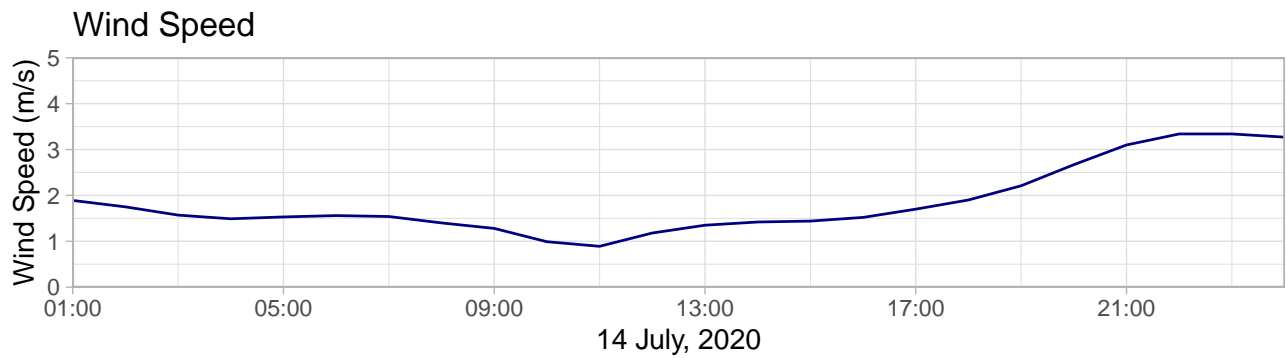
Proportion contribution to the mean (%)

## Meteorological Monitoring

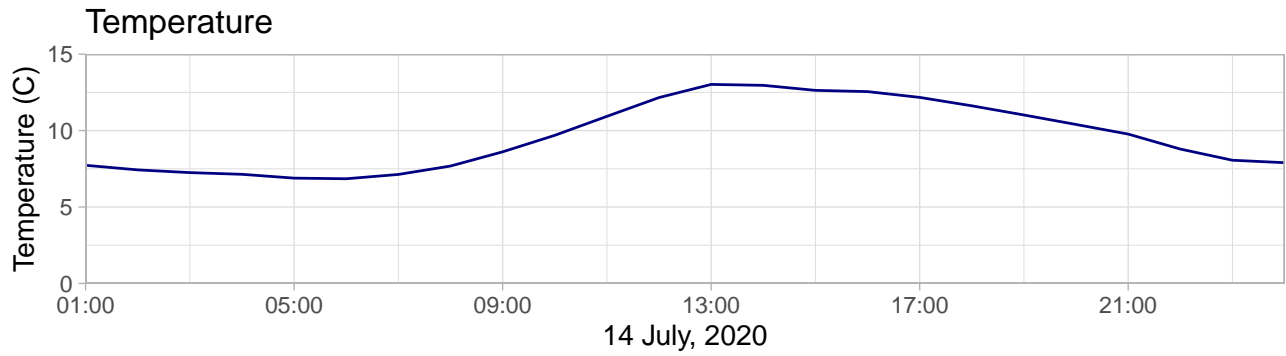
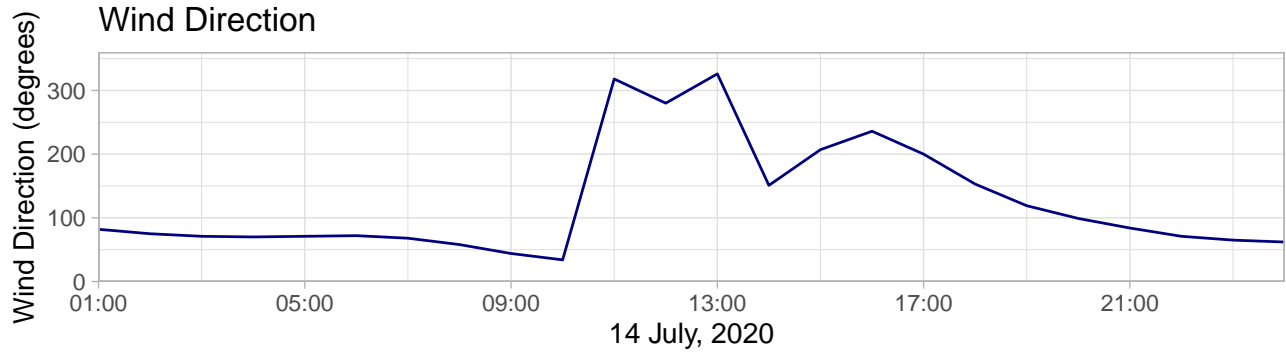
The following figures show meteorological parameters measured<sup>1</sup> throughout the day.



Frequency of counts by wind direction (%)



<sup>1</sup>Powered by [Dark Sky](#)



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*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.*