

# Ground Level Particulate Notification Report - 24 December, 2019

**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 24 December, 2019 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 38.8 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 33.1 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>	40.3	50
	PM <sub>2.5</sub>	38.8	25
Gunn Street	PM <sub>10</sub>	33.6	50
	PM <sub>2.5</sub>	33.1	25

Smoke and dust from bush fires burning in rural areas surrounding Adelaide have contributed to elevated levels of particulate in the Adelaide metropolitan area. The community monitors reflect these elevated particulate levels with the measured 24 hr averages for PM<sub>2.5</sub> exceeding the EPP Air criterion, on both the Community Park and Gunn Street monitors.

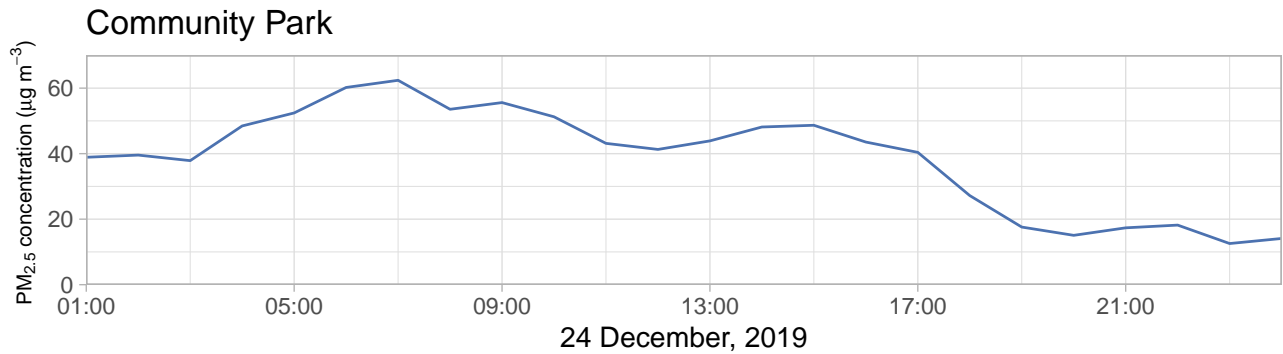
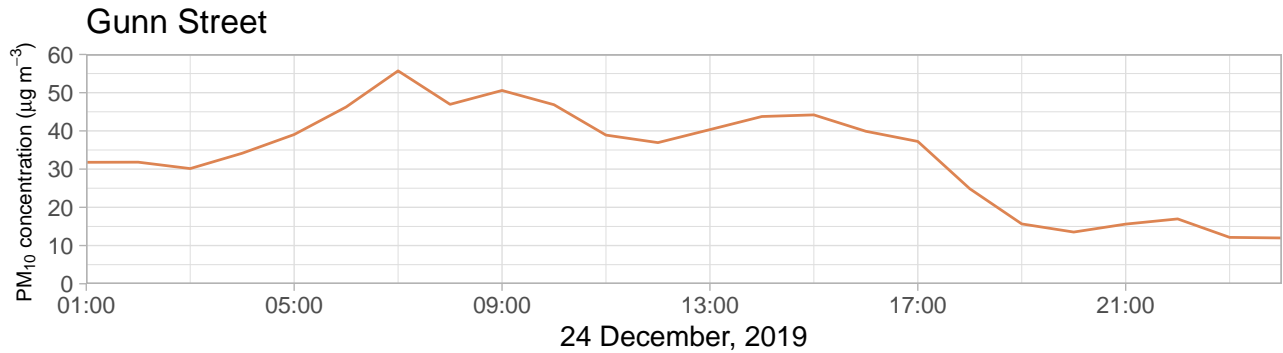
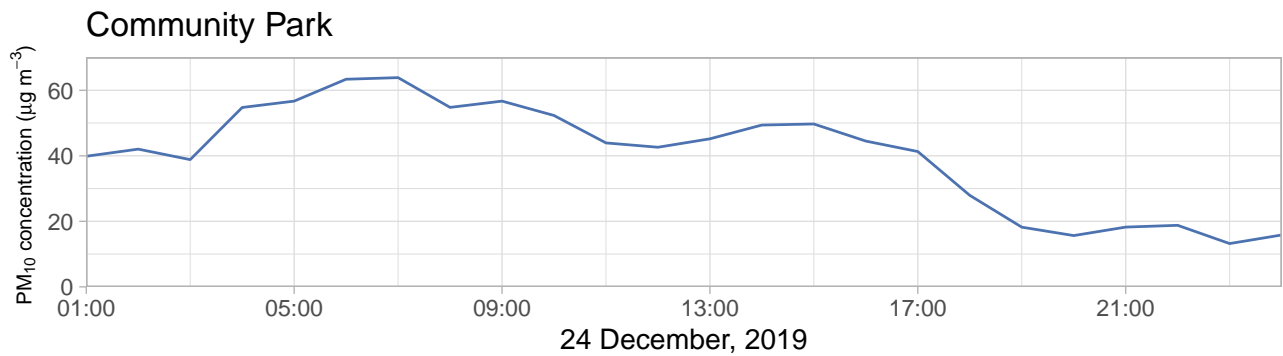
## Community Monitoring

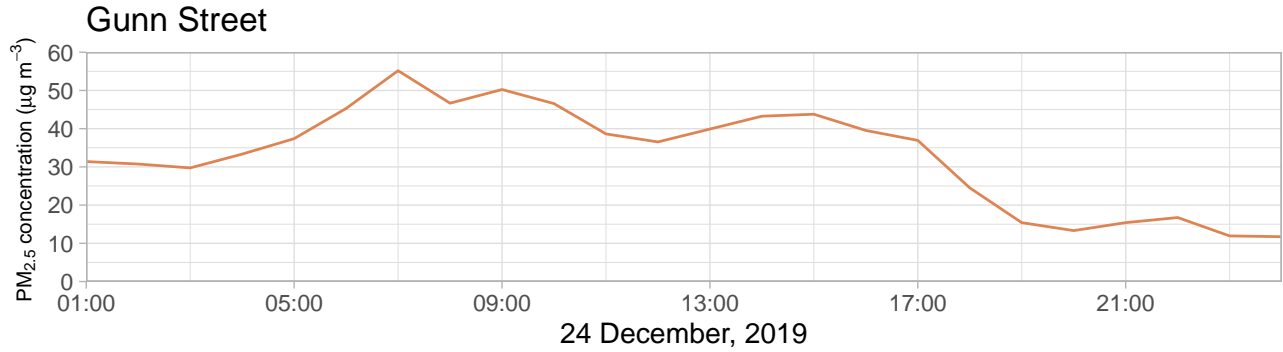
Monitoring data collected at the community monitoring sites is presented in this section.

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.

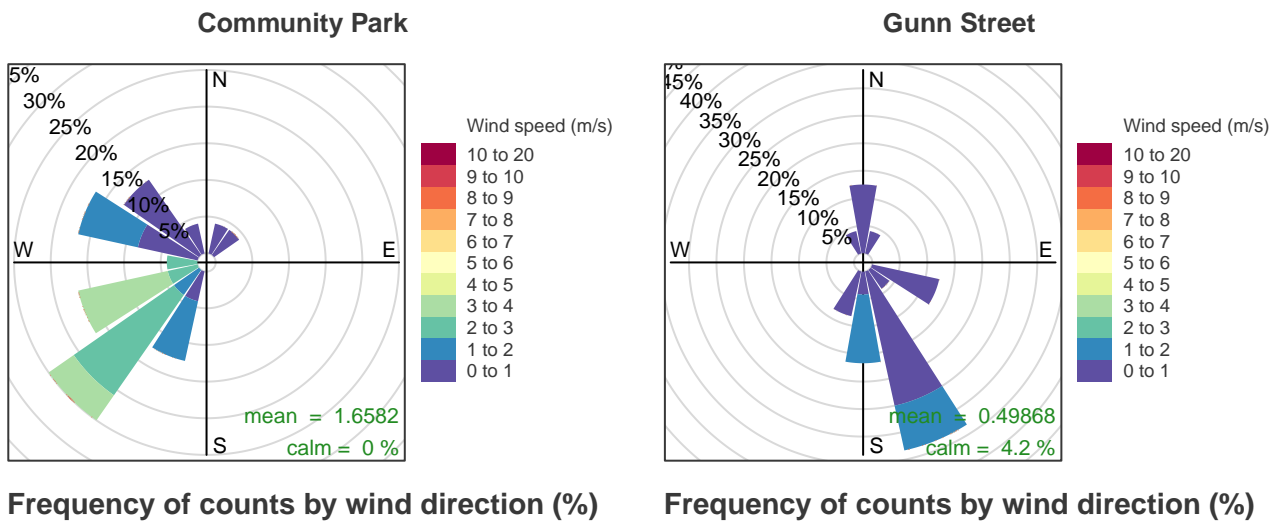
Monitoring Location	Direction	PM <sub>10</sub> proportion (%)	PM <sub>2.5</sub> proportion (%)
Community Park	From direction of ABC (WD < 180)	12	12
Community Park	From other direction (WD > 180)	88	88
Gunn Street	From direction of ABC (WD < 180)	80	80
Gunn Street	From other direction (WD > 180)	20	20

The figures below show the time series of 1-hour average measurements throughout 24 December, 2019

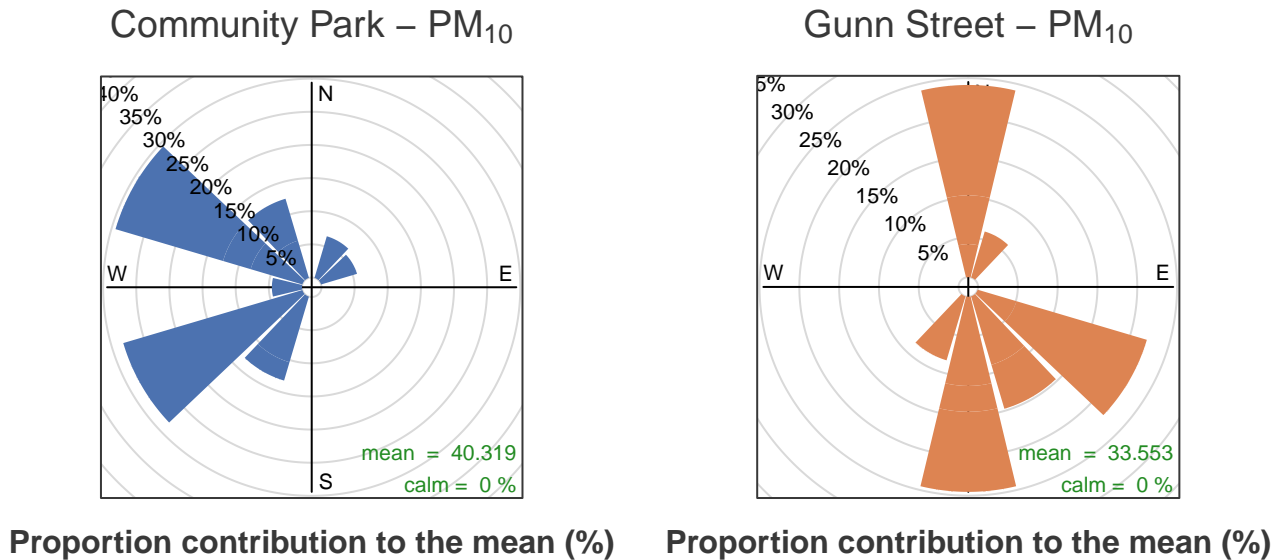




The figures below show wind roses summarising the period 24 December, 2019.



The figures below show dust roses summarising the period 24 December, 2019



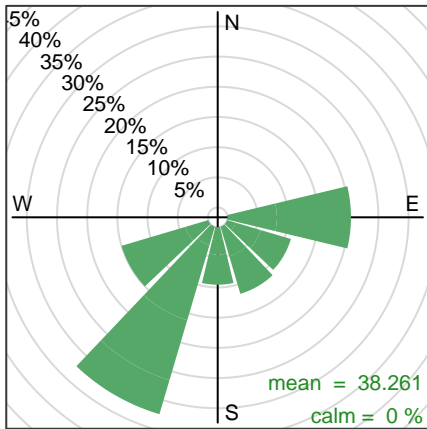
### EPA Monitoring

The 24-hour average PM<sub>10</sub> and PM<sub>2.5</sub> concentrations measured at the EPA monitoring sites are shown in the table below. Note that the data has not been validated.

Site	Region	PM <sub>10</sub> (µg/m <sup>3</sup> )	PM <sub>2.5</sub> (µg/m <sup>3</sup> )
CBD	Adelaide CBD	40	23
Christies	Southern Adelaide	35	-
Elizabeth	Northern Adelaide	48	23
Kensington	Eastern Adelaide	30	-
Le Fevre 1	Northwestern Adelaide	39	18
Le Fevre 2	Northwestern Adelaide	40	18
Netley	Western Adelaide	49	20
Port Augusta	Mobile Station	40	28
Port Pirie Oliver St	Spencer Gulf	53	-
Whyalla Schulz Res	Spencer Gulf	44	-
Whyalla Walls St	Spencer Gulf	44	-

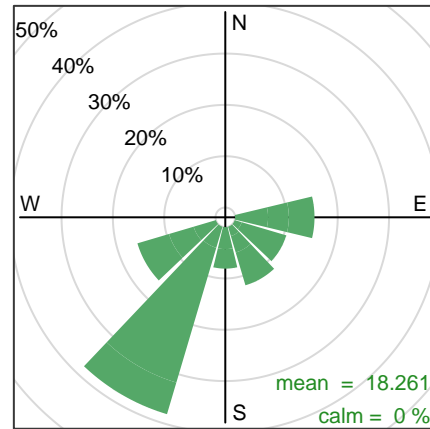
The dust roses below show the distribution of PM<sub>10</sub> and PM<sub>2.5</sub> measured at Le Fevre 1 for the period 24 December, 2019 .

Le Fevre 1 – PM<sub>10</sub>



Proportion contribution to the mean (%)

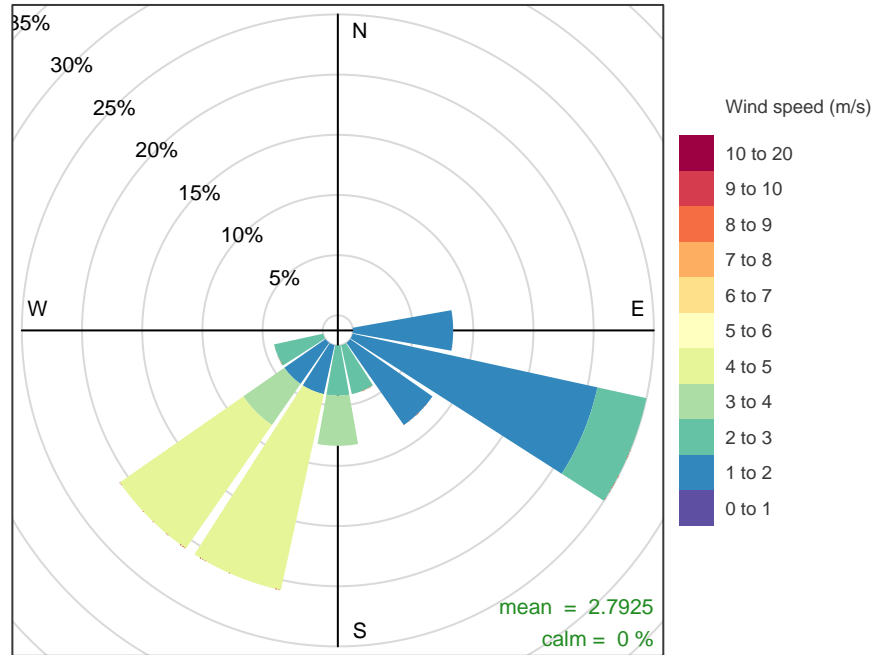
Le Fevre 1 – PM<sub>2.5</sub>



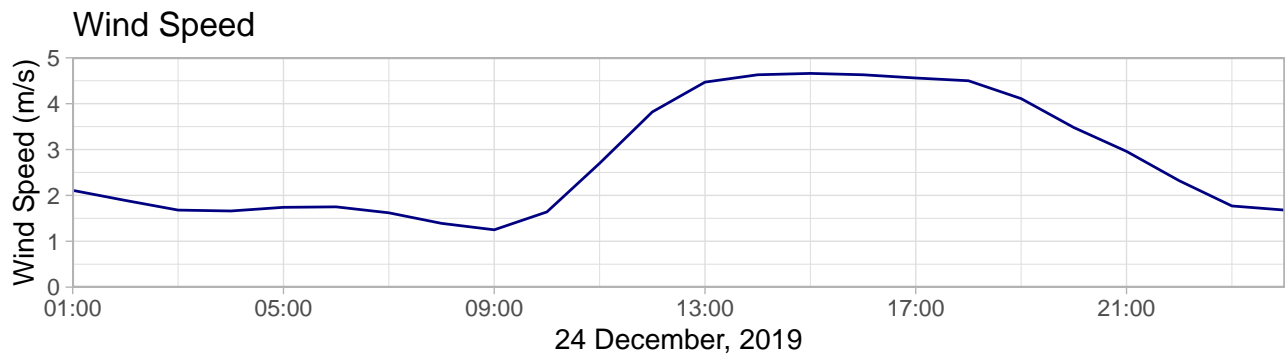
Proportion contribution to the mean (%)

## Meteorological Monitoring

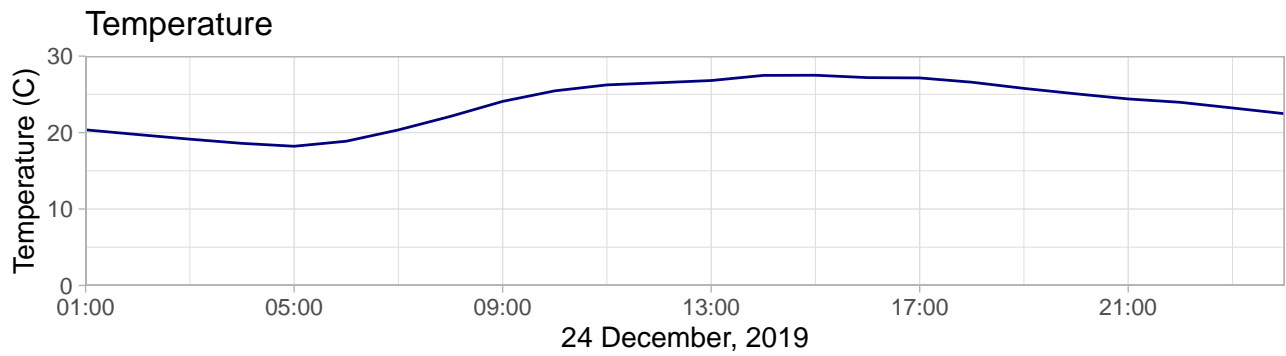
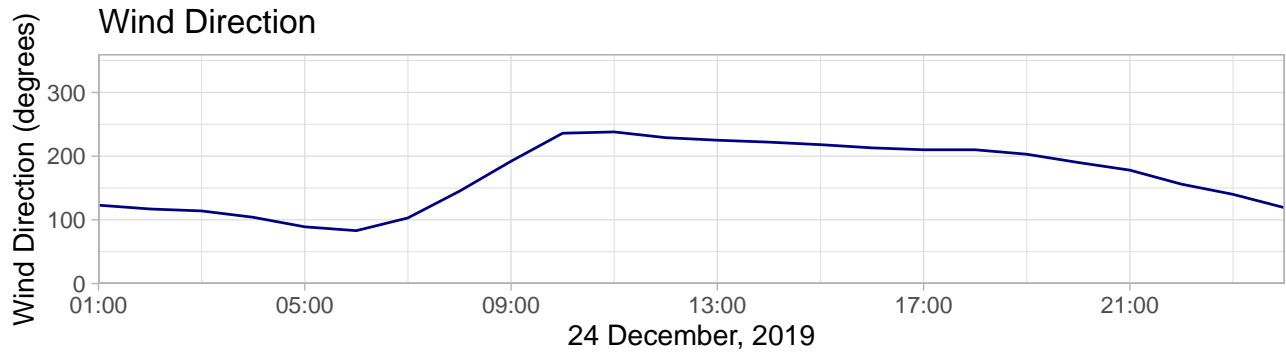
The following figures show meteorological parameters measured<sup>1</sup> throughout the day.



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.*