

Ground Level Particulate Notification Report - 10 January, 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 10 January, 2020 is shown in [Table 1](#) below. The data indicates that:

- The 24-hour average PM₁₀ concentration measured at Community Park of 83.8 µg/m³ exceeded the EPP Air criterion of 50 µg/m³
- The 24-hour average PM_{2.5} concentration measured at Community Park of 81.8 µg/m³ exceeded the EPP Air criterion of 25 µg/m³
- The 24-hour average PM₁₀ concentration measured at Gunn Street of 74.2 µg/m³ exceeded the EPP Air criterion of 50 µg/m³
- The 24-hour average PM_{2.5} concentration measured at Gunn Street of 73.3 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	83.8	50
	PM _{2.5}	81.8	25
Gunn Street	PM ₁₀	74.2	50
	PM _{2.5}	73.3	25

Smoke and dust from bush fires burning on Kangaroo Island and in other regional areas, 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 PM₁₀ and PM_{2.5} on the Community Park and Gunn street monitors exceeding the EPP Air criterion.

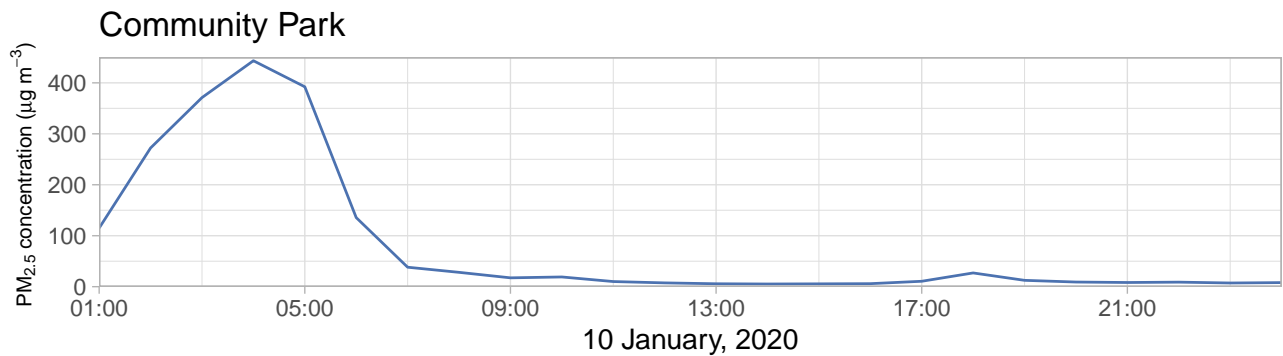
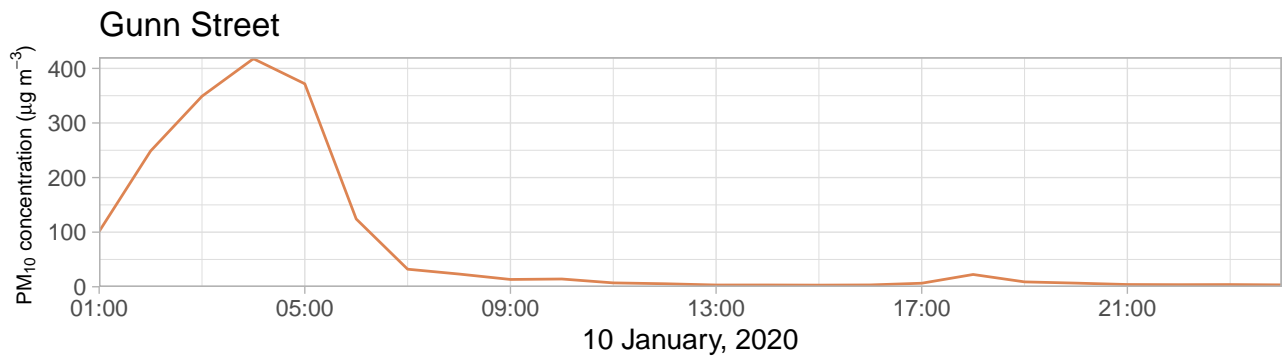
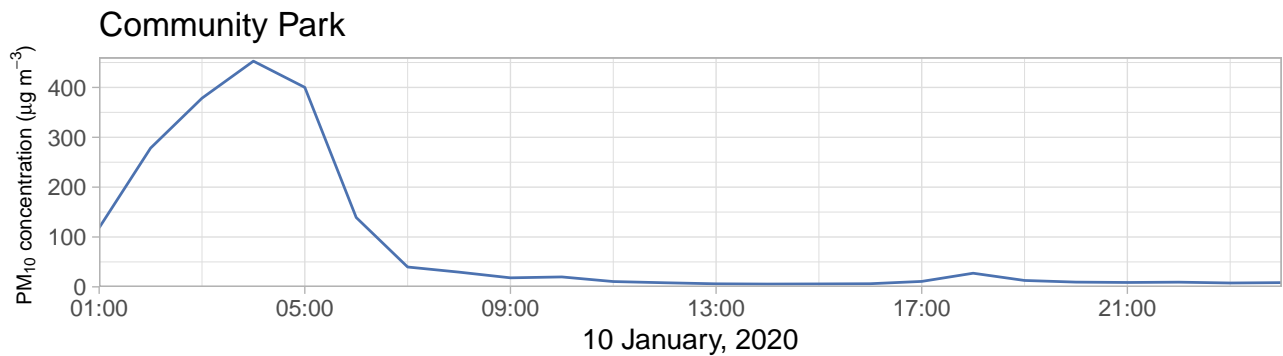
Community Monitoring

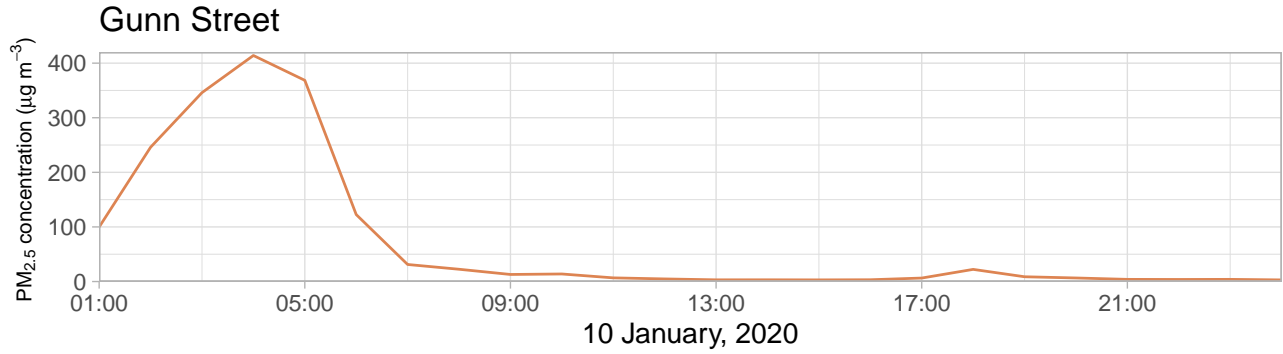
Monitoring data collected at the community monitoring sites is presented in this section.

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.

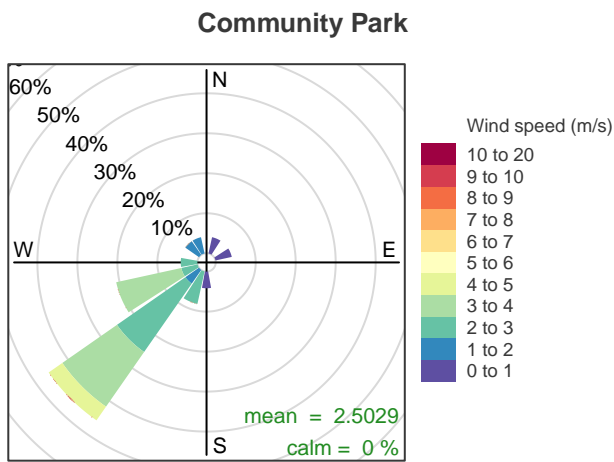
Monitoring Location	Direction	PM ₁₀ proportion (%)	PM _{2.5} proportion (%)
Community Park	From direction of ABC (WD < 180)	61	61
Community Park	From other direction (WD > 180)	39	39
Gunn Street	From direction of ABC (WD < 180)	97	97
Gunn Street	From other direction (WD > 180)	3	3

The figures below show the time series of 1-hour average measurements throughout 10 January, 2020

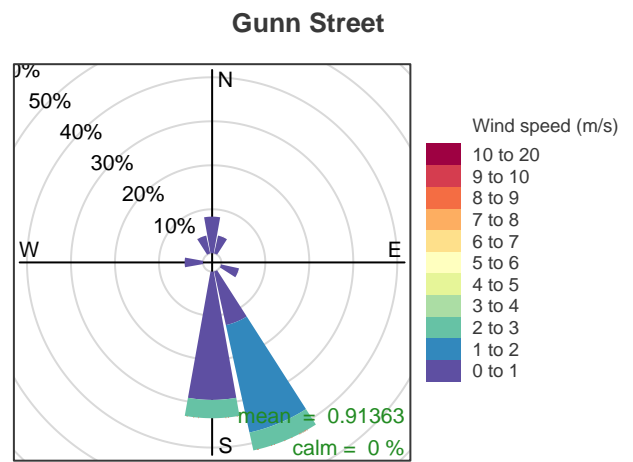




The figures below show wind roses summarising the period 10 January, 2020.

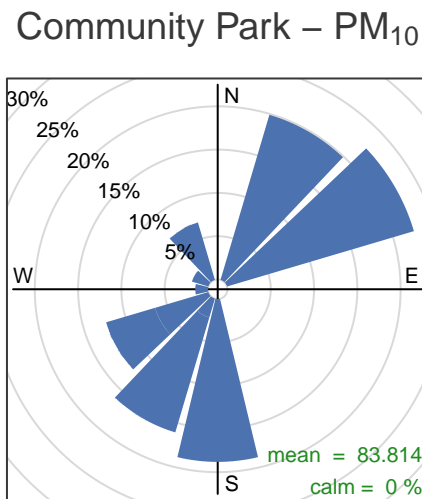


Frequency of counts by wind direction (%)

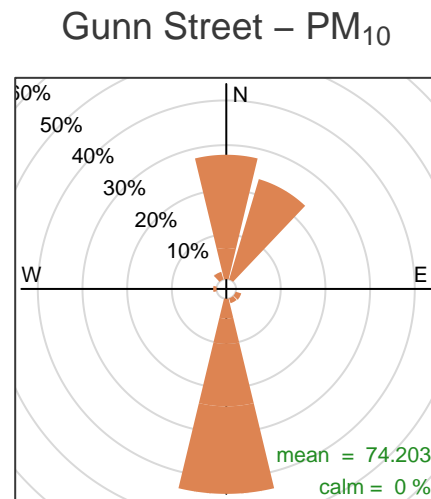


Frequency of counts by wind direction (%)

The figures below show dust roses summarising the period 10 January, 2020



Proportion contribution to the mean (%)



Proportion contribution to the mean (%)

EPA Monitoring

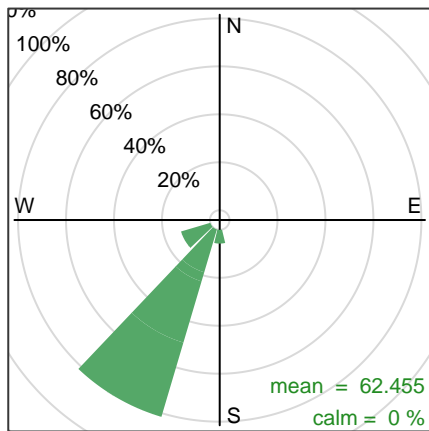
The 24-hour average PM₁₀ and PM_{2.5} concentrations measured at the EPA monitoring sites are shown in the table below. Note that the data has not been validated.

Site	Region	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)
CBD	Adelaide CBD	65	33
Christies	Southern Adelaide	73	-
Elizabeth	Northern Adelaide	78	38
Kensington	Eastern Adelaide	54	-
Le Fevre 1	Northwestern Adelaide	64	30
Le Fevre 2	Northwestern Adelaide	53	28
Netley	Western Adelaide	73	37
Port Augusta	Mobile Station	26	16
Port Pirie Oliver St	Spencer Gulf	35	-
Whyalla Schulz Res	Spencer Gulf	30	-
Whyalla Walls St	Spencer Gulf	27	-

EPA monitors reflect the increased levels of particulate confirming the regional influence of smoke and dust from bush fires.

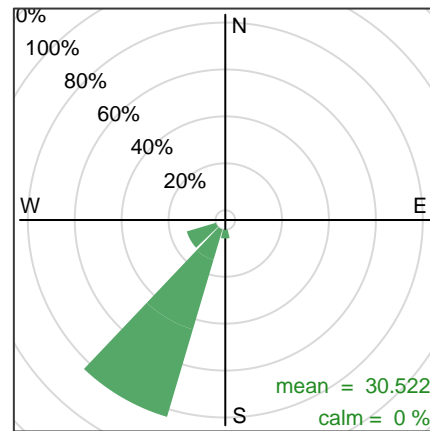
The dust roses below show the distribution of PM₁₀ and PM_{2.5} measured at Le Fevre 1 for the period 10 January, 2020 .

Le Fevre 1 – PM₁₀



Proportion contribution to the mean (%)

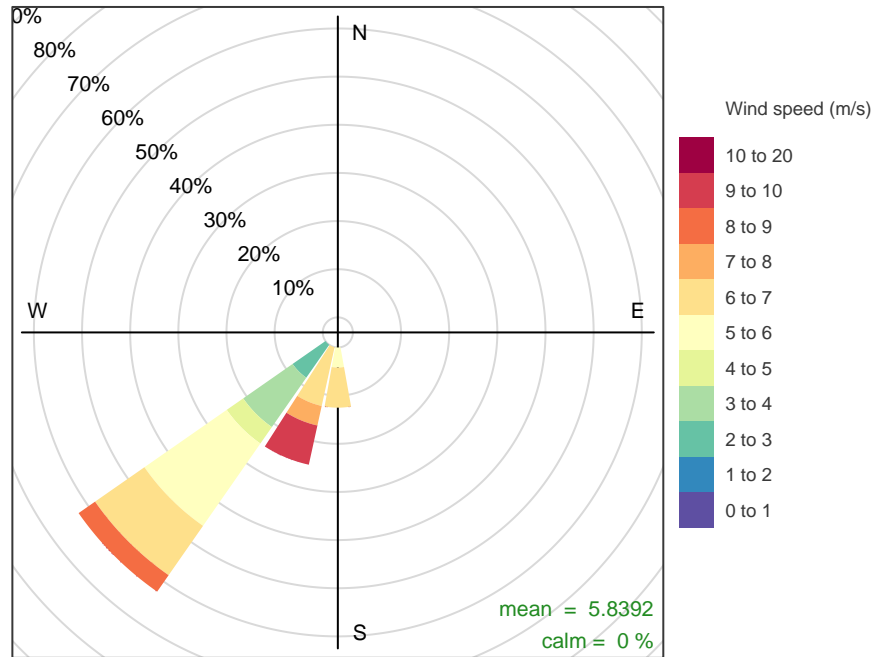
Le Fevre 1 – PM_{2.5}



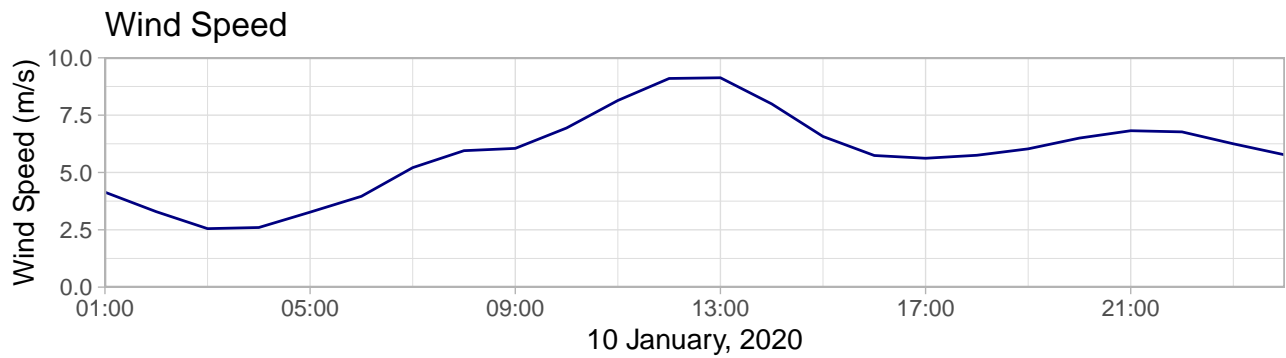
Proportion contribution to the mean (%)

Meteorological Monitoring

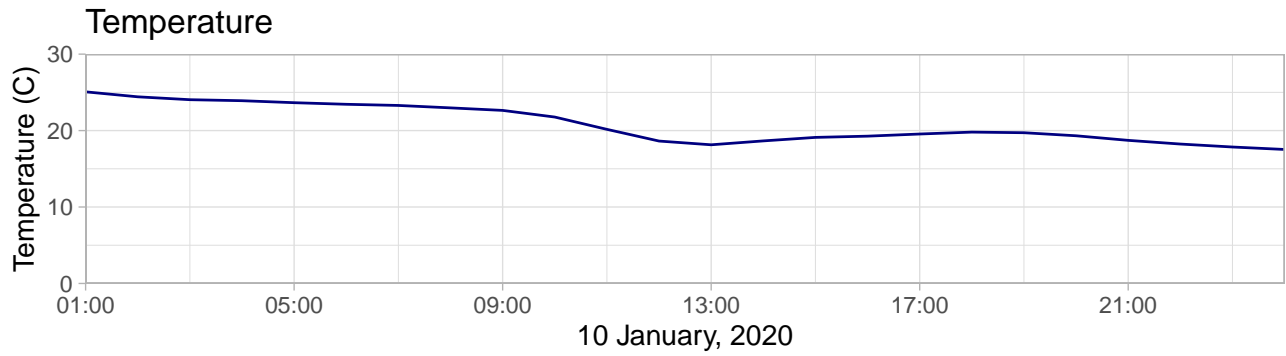
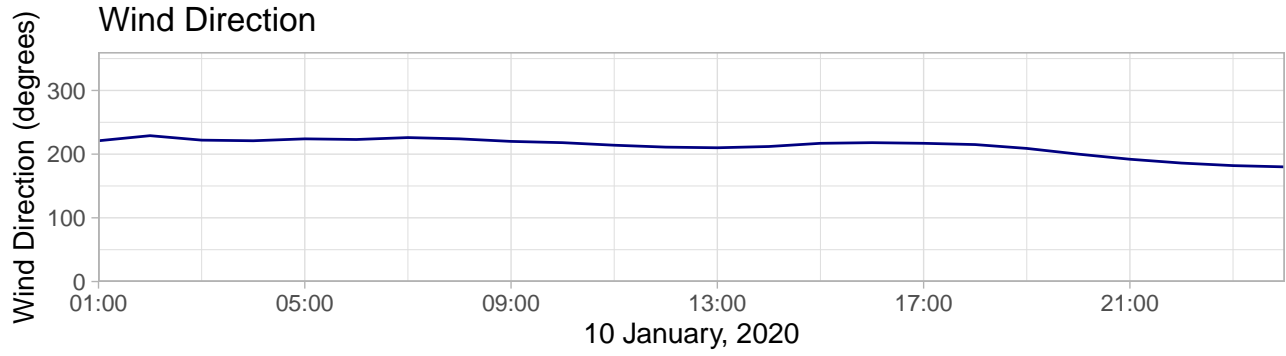
The following figures show meteorological parameters measured¹ throughout the day.



Frequency of counts by wind direction (%)



¹Powered by [Dark Sky](#)



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.