



Adelaide Brighton Cement Ltd

an **ADBRI** company

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QUARTERLY GROUND LEVEL PARTICULATE MONITORING REPORT FOR BIRKENHEAD WORKS

COMPLIANCE DATE: 30/04/25 – Quarter 1, 2025

**EPA Licence 1126: Ground Level Particulate Monitoring and
Reporting Plan (U - 1555)**

Licensed site: Adelaide Brighton Cement, Birkenhead Works

62 Elder Road, Birkenhead, SA 5015

Date of Submission: 30 April 2025

Version Number: 1



Report Submitted by: Business Partner - Environment

Glossary

Term	Definition
$\mu\text{g}/\text{m}^3$	micrograms per cubic metre
μm	micrometre
$^{\circ}\text{C}$	degrees Celsius
m	metre
m^3	cubic metre
m^3/s	cubic metres per second

Nomenclature Definition

PM_{10}	Particulate matter with a diameter less than 10 micrometres
$\text{PM}_{2.5}$	Particulate matter with a diameter less than 2.5 micrometres
TSP	Total Suspended Particulate
24 hour average	Calendar day (midnight to midnight)

Abbreviations Definition

ABC	Adelaide Brighton Cement
Air EPP	South Australian Environment Protection (Air Quality) Policy 2016
GLPMRP	ABC's Ground Level Particulate Monitoring and Reporting Plan
EPA	Environment Protection Authority

Monitoring Locations

- Map showing sampling locations, major infrastructure, sensitive environmental receptors, and north arrow.



Monitoring locations are indicated by colour-coded dots on the above map.

NB: Four sampling points are located on the Birkenhead Works site; the other monitoring locations are in the community (Community Park), and Corner of Walton Street and Mary Street.

The property (not owned by ABC), on which the Gunn Street Monitor was located, was sold for redevelopment and was no longer available for use. As a consequence the monitor was removed on 28 June 2022. After a period of negotiating with the EPA and discussion with City of Port Adelaide Enfield Council, Adbri initiated the application process for installation of a permanent air quality monitor in the preferred location, the NW corner of Naval Reserve in November 2023. The application was ultimately not approved in June 2024 and Adbri will continue to work respectfully with both parties to reinstate a long term solution. In the mean time a trailer mounted air quality monitor has been set up on the corner of Walton Street and Mary Street, Peterhead, until a long-term monitoring station can be established

Monitoring Objective	<p>To provide monitoring and reporting of ground level particulate concentrations (PM10 and PM2.5), from a network of monitors located within and external to the site premises.</p> <ul style="list-style-type: none"> • Monitoring data for each monitor (on site and off site) shall include: <ul style="list-style-type: none"> ○ Monthly wind rose showing the distribution of wind directions ○ Monthly dust rose showing the distribution of PM₁₀ concentration ○ Monthly dust rose showing the distribution of PM_{2.5} concentration ○ Monitoring data for each ABC monitor (on site and off site) including EPA monitor (Le Fevre 1) for comparison as follows: <ul style="list-style-type: none"> ○ Monthly time series graph of 24-hour average PM₁₀ concentration reported against the Air EPP for PM₁₀ of 50 micrograms per cubic metre (24-hour average). ○ Monthly time series graph of 24-hour average PM_{2.5} concentration reported against the Air EPP for PM_{2.5} of 25 micrograms per cubic metre (24-hour average).
Monitoring Plan	<p>This monitoring report has been prepared in compliance with the Ground Level Particulate Monitoring and Reporting Plan (GLPMRP), approved 16 October 2023 by the South Australian EPA.</p> <p>The Plan is available on the ABC Birkenhead Community Website: https://adelaidebrightoncommunity.com.au/</p> <p>In September ABC installed and commissioned trailer mounted monitoring stations at two locations in the local community. One of these was co-located at the ABC Community Park (Birkenhead), and the other was located on the corner of Walton Street and Mary Street, Peterhead, and is a replacement for the former Gunn Street monitor until a long-term monitoring station can be established.</p> <p>The trailer mounted monitoring stations have been set up to measure PM2.5, PM10 and TSP particulate sizes using the following equipment:</p> <ul style="list-style-type: none"> • Thermo Scientific Model 5028i BAM which consistently measure PM2.5 and PM10. • Thermo Scientific Model 5014i BAM which consistently measure TSP. • 10m pump up mast 86000 Wind Speed/Direction Sensor • Wind speed and direction at each particulate monitor is measured continuously by a RM Young 86000 windspeed and direction sensor, mounted on a 10m pump up mast. <p>This monitoring arrangement allows for analysis of the new BAM equipment capability and suitability, and to address concerns raised by the EPA with the PM2.5, PM10 and PM2.5/PM10 ratio measured by the DustTrak monitors, that have been in service.</p>

	<p>The new BAM's at Community Park and Walton Street commenced operation on the 10 and 11 September, respectively.</p> <p>A revised Ground Level Particulate Monitoring and Reporting Plan (GLPMRP), capturing the changes in monitoring has been submitted to the EPA for review and approval, and will be made available on the ABC Birkenhead Community Website: https://adelaidebrightoncommunity.com.au/ when approved.</p>																												
Monitoring data for each ABC monitor	<p>Monitoring reports for January, February and March, provide for each monitor the following:</p> <ul style="list-style-type: none">PM_{2.5}, PM₁₀, 24-hour averagesPM_{2.5}, PM₁₀ monthly wind & dust rose <p>There was insufficient data collected to calculate a valid 24 hr PM10 and PM2.5 reading for Walton Street Monitor on the 22/1/2025 due to a site power failure and on the 6/03/2025 due to failure to reinstate the power supply to the data logger following equipment maintenance.</p> <p>There were five, 24-hour exceedances of PM₁₀ or PM_{2.5} Air (EPP) criteria on community particulate monitors, during this reporting period. The exceedances are summarised in table 1 below, and the full reports are included in the appendix.</p> <p>Table 1 Summary of 24hr 24-hour exceedances of PM₁₀ or PM_{2.5} Air (EPP) criteria on community particulate monitors</p> <table><tr><th>Date</th><th colspan="4">Exceedance Summary</th></tr><tr><td rowspan="6">02/02/2025</td><td>Monitoring Location</td><td>Pollutant</td><td>24-hour average (µg/m³)</td><td>EPP Air Criterion (µg/m³)</td></tr><tr><td rowspan="2">Community Park BAM</td><td>PM₁₀</td><td>55.7</td><td>50</td></tr><tr><td>PM_{2.5}</td><td>39.6</td><td>25</td></tr><tr><td rowspan="2">Walton Street</td><td>PM₁₀</td><td>54.8</td><td>50</td></tr><tr><td>PM_{2.5}</td><td>36.6</td><td>25</td></tr><tr><td colspan="4"><p>Smoke and dust from bush fires burning in the Grampians and areas in western Victoria 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 PM2.5 on the Community Park and Walton Street monitors exceeding the relevant EPP Air criterion.</p><p>The increase in particulate levels are also reflected in monitoring data from EPA monitors located in metropolitan Adelaide and Regional areas in SA.</p></td></tr></table>	Date	Exceedance Summary				02/02/2025	Monitoring Location	Pollutant	24-hour average (µg/m ³)	EPP Air Criterion (µg/m ³)	Community Park BAM	PM ₁₀	55.7	50	PM _{2.5}	39.6	25	Walton Street	PM ₁₀	54.8	50	PM _{2.5}	36.6	25	<p>Smoke and dust from bush fires burning in the Grampians and areas in western Victoria 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 PM2.5 on the Community Park and Walton Street monitors exceeding the relevant EPP Air criterion.</p> <p>The increase in particulate levels are also reflected in monitoring data from EPA monitors located in metropolitan Adelaide and Regional areas in SA.</p>			
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Date	Exceedance Summary			
03/02/2025	Monitoring Location	Pollutant	24-hour average ($\mu\text{g}/\text{m}^3$)	EPP Air Criterion ($\mu\text{g}/\text{m}^3$)
	Community Park BAM	PM ₁₀	61.3	50
		PM _{2.5}	19.6	25
	Walton Street	PM ₁₀	51.9	50
		PM _{2.5}	17.6	25
	<p>Easterly winds have blown smoke and dust from bush fires burning in the Grampians and areas in western Victoria contributing to elevated levels of particulate in the Adelaide metropolitan area. Adbri Cement's community monitors reflect these elevated particulate levels with measured 24 hr averages for PM10 on the Community Park and Walton Street monitors exceeding the relevant Environment Protection Policy (Air Quality), EPP Air criterion.</p> <p>The increase in particulate levels are also reflected in monitoring data from EPA monitors located in metropolitan Adelaide and Regional areas in SA.</p>			
12/02/2025	Monitoring Location	Pollutant	24-hour average ($\mu\text{g}/\text{m}^3$)	EPP Air Criterion ($\mu\text{g}/\text{m}^3$)
	Community Park BAM	PM ₁₀	52.3	50
		PM _{2.5}	8.8	25
	Walton Street	PM ₁₀	36.5	50
		PM _{2.5}	7.0	25
	<p>The wind direction was from the East and North East direction for about 50% of the day, blowing across the Birkenhead site towards the community to the west of the site. PM10 levels were generally elevated in the air shed, and it appears the PM10 contribution from wind blowing across Adelaide Brighton Cement site, has contributed to the exceedance of PM10 on the Community Park monitor. PM10 levels were elevated from midnight to midday, and started to drop with a change in wind direction blowing from the North West. The kiln was not operating during the the high PM10 levels, and did not start up until late afternoon. Investigation of site activity has not identified a specific activity that has contributed to the increase in PM10 dust, other than stockpiles and material movements which were reduced because of the kiln being shutdown.</p>			

Date	Exceedance Summary			
08/03/2025	Monitoring Location	Pollutant	24-hour average ($\mu\text{g}/\text{m}^3$)	EPP Air Criterion ($\mu\text{g}/\text{m}^3$)
	Community Park BAM	PM ₁₀	63.8	50
		PM _{2.5}	9.8	25
	Walton Street	PM ₁₀	42.2	50
		PM _{2.5}	6.4	25
	<p>The wind direction was from the East and North East direction for about 85% of the day, blowing across the Birkenhead site towards the community to the west of the site. PM10 levels were generally elevated in the air shed, and it appears the PM10 contribution from wind blowing across Adelaide Brighton Cement site, has contributed to the exceedance of PM10 on the Community Park monitor. Investigation of site activity has not identified a specific activity that has contributed to the increase in PM10 dust, other than stockpiles and material movements.</p>			
29/03/2025	Monitoring Location	Pollutant	24-hour average ($\mu\text{g}/\text{m}^3$)	EPP Air Criterion ($\mu\text{g}/\text{m}^3$)
	Community Park BAM	PM ₁₀	52.8	50
		PM _{2.5}	9.9	25
	Walton Street	PM ₁₀	45.7	50
		PM _{2.5}	9.1	25
	<p>Light winds from the North East and Easterly directions for about 80-85% of the day, blowing across Adelaide Brighton Cement (ABC's), site towards the community to the west of the site. PM10 levels were generally elevated in the airshed, and it appears the PM10 contribution from winds blowing across the Adelaide Brighton Cement site has contributed to the high background levels of PM10 resulting in an exceedance of PM10 on the Community Park monitor. An increase in wind speed and change in wind direction from the South /South West from about 9 am, resulted in a reduction of PM10 levels as the air shed was flushed. Investigation of site activity has not identified a specific activity that has contributed to increase in PM10 dust. Site personnel, noted generally dusty conditions on the east and north eastern side of the Port River.</p>			

Appendix	January, February and March Monitoring Reports 2 February 2025 24hr air quality exceedance report 3 February 2025 24hr air quality exceedance report 12 February 2025 24hr air quality exceedance report 8 March 2025 24hr air quality exceedance report 29 March 2025 24hr air quality exceedance report
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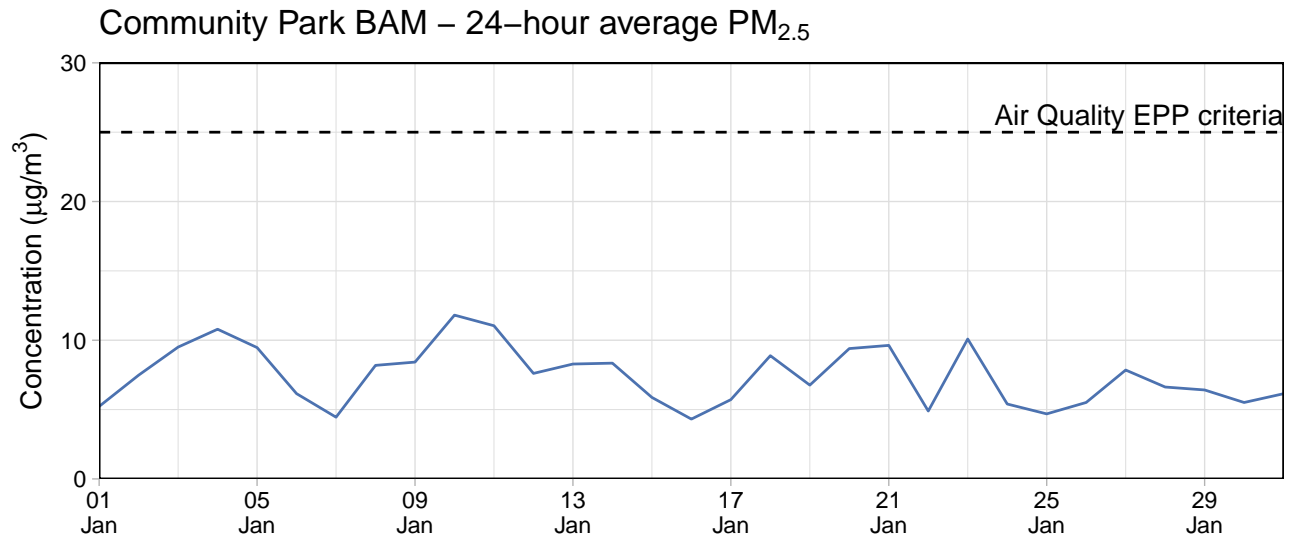
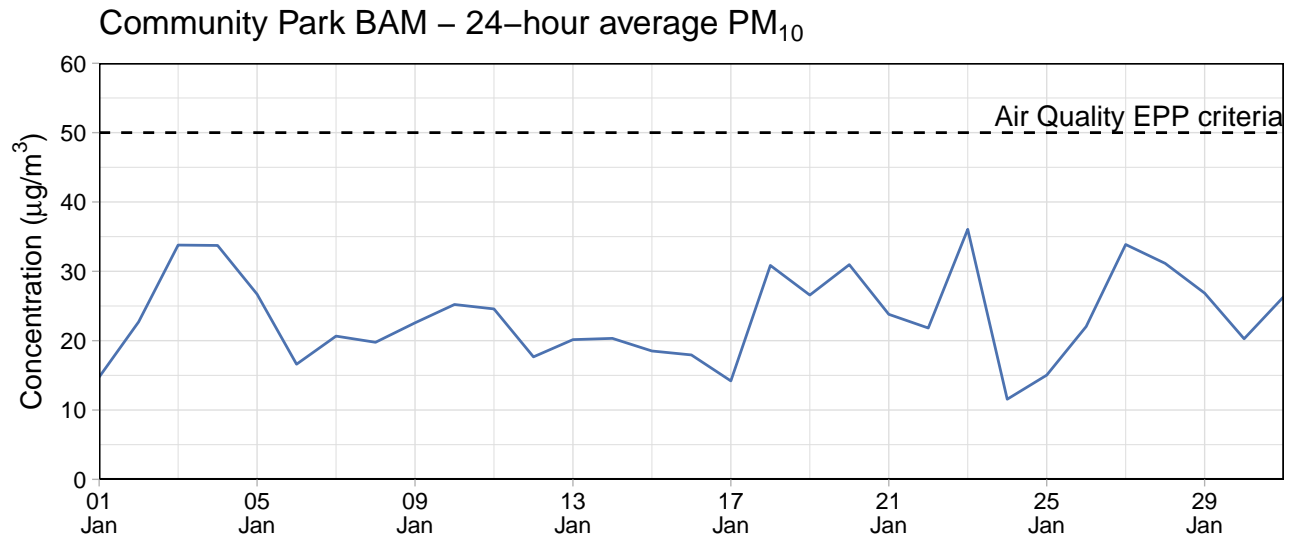
Monitoring Summary (01 Jan, 2025 - 31 Jan, 2025)

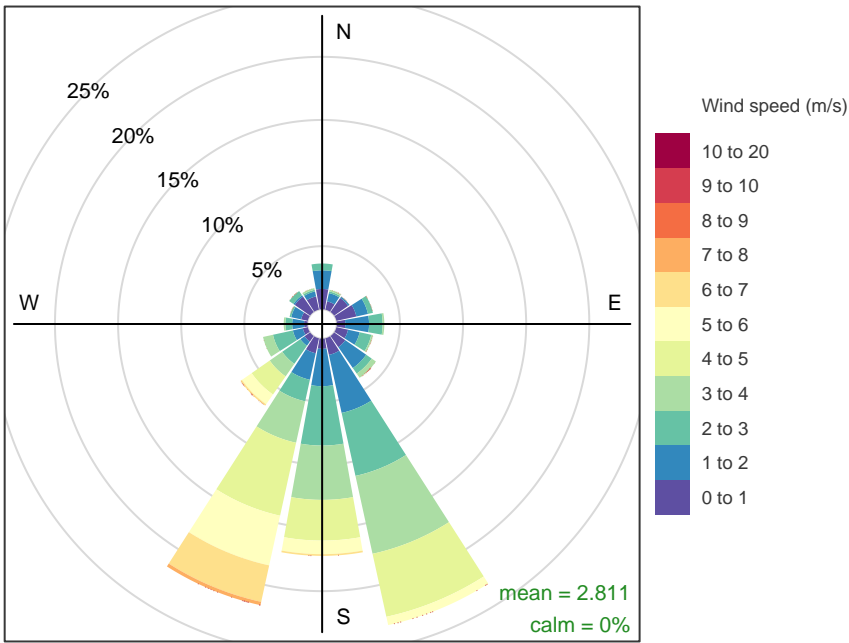
Public Monitors

Table 1: Summary of 24-hour average data collected at public monitors ($\mu\text{g}/\text{m}^3$)

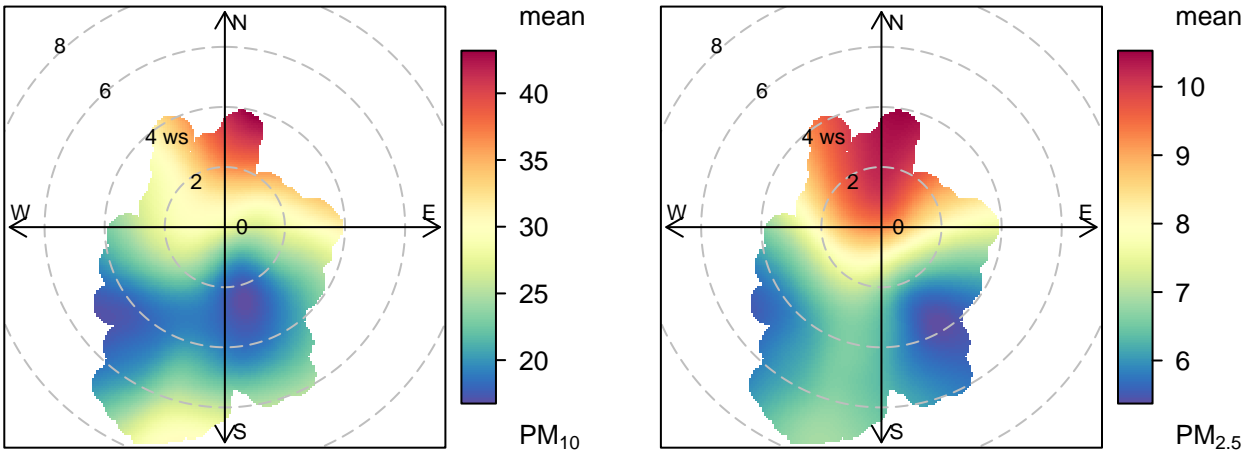
Site	PM ₁₀				PM _{2.5}			
	Min	Avg	Max	Capture (%)	Min	Avg	Max	Capture (%)
Community Park	11.6	23.5	36.1	100.0	4.3	7.4	11.8	100.0
BAM								
Walton Street	11.1	21.8	31.5	93.5	2.6	6.2	10.2	93.5

Community Park BAM



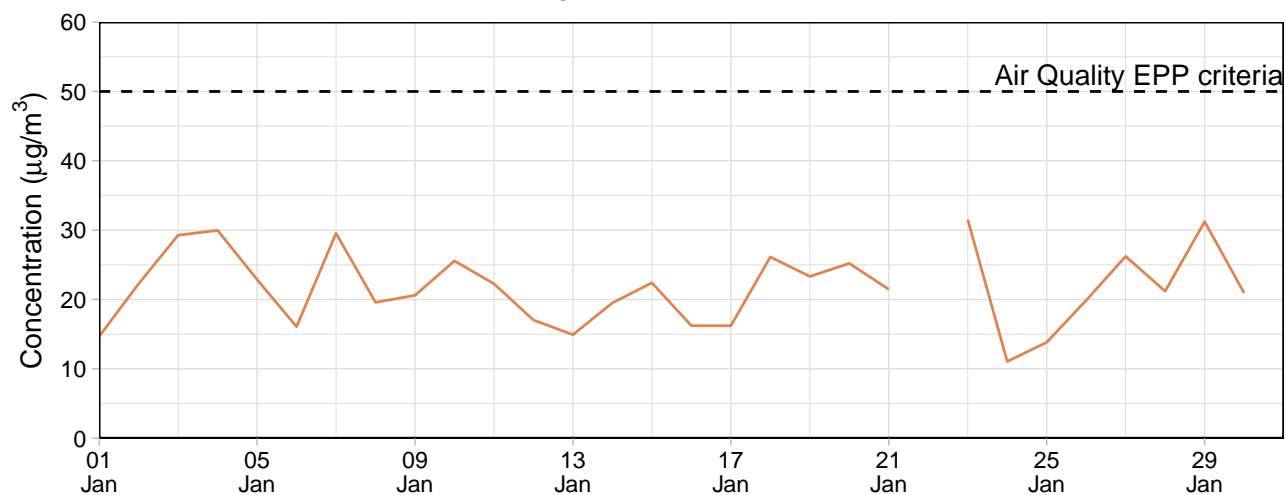


Frequency of counts by wind direction (%)

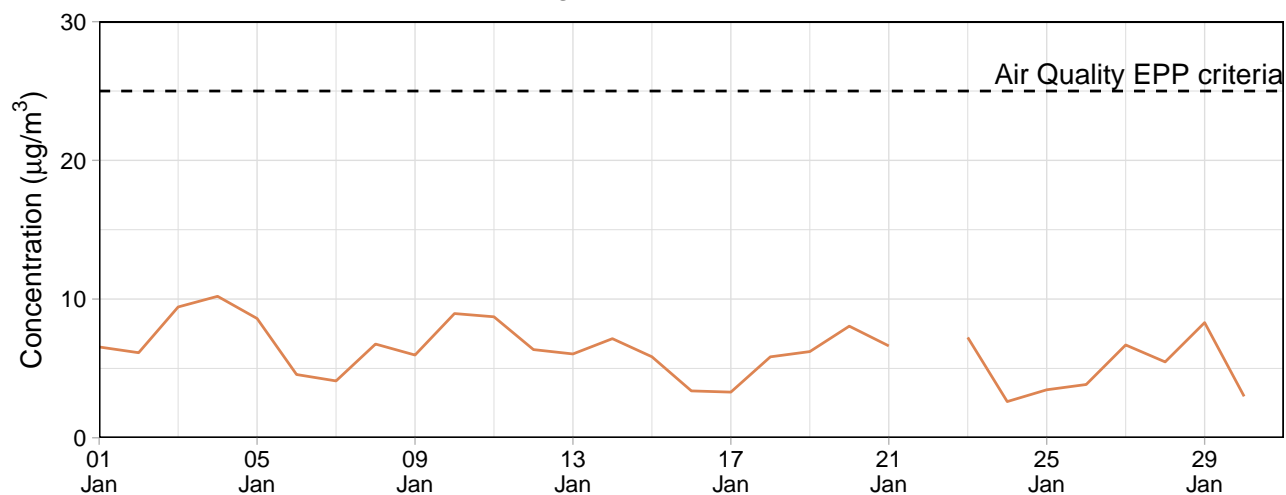


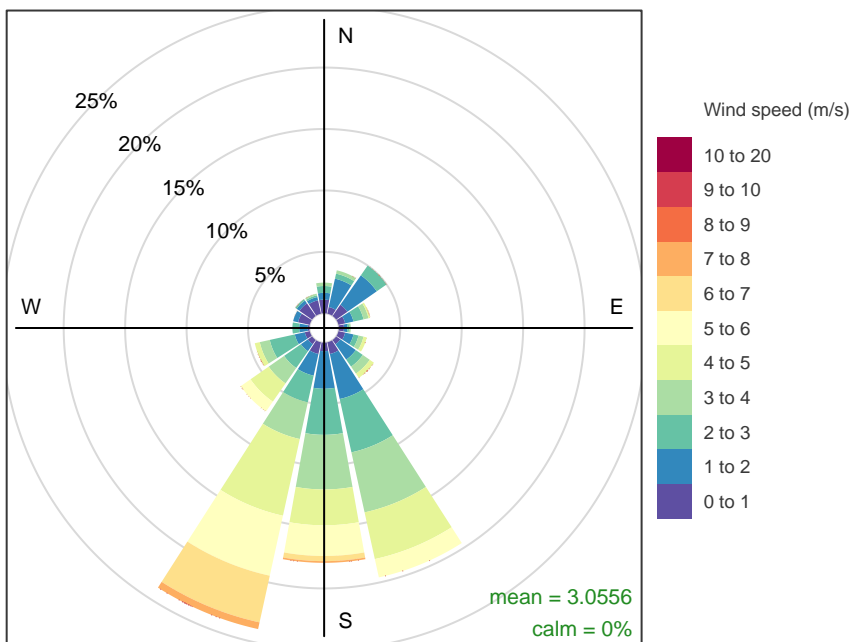
Walton Street

Walton Street – 24-hour average PM₁₀

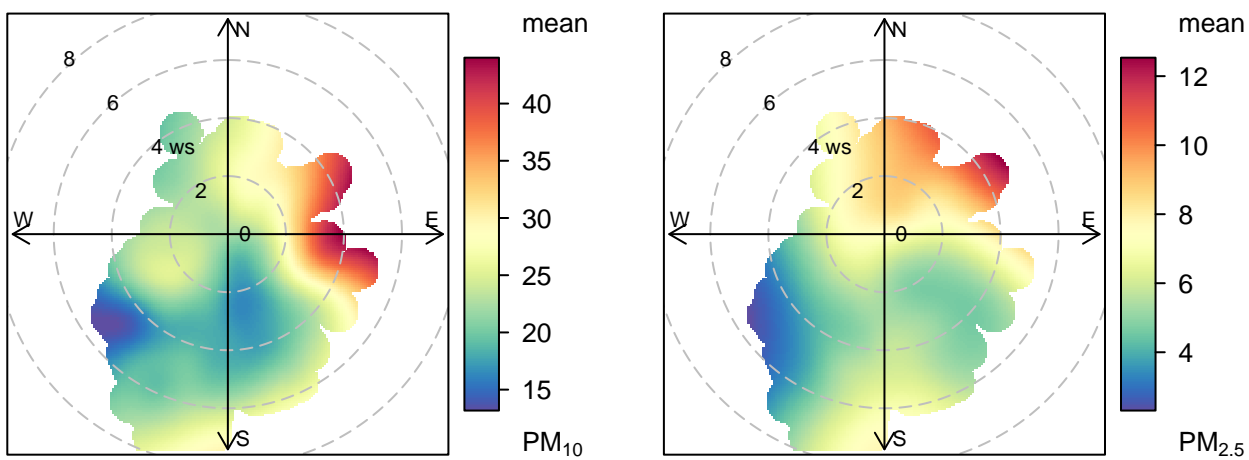


Walton Street – 24-hour average PM_{2.5}





Frequency of counts by wind direction (%)



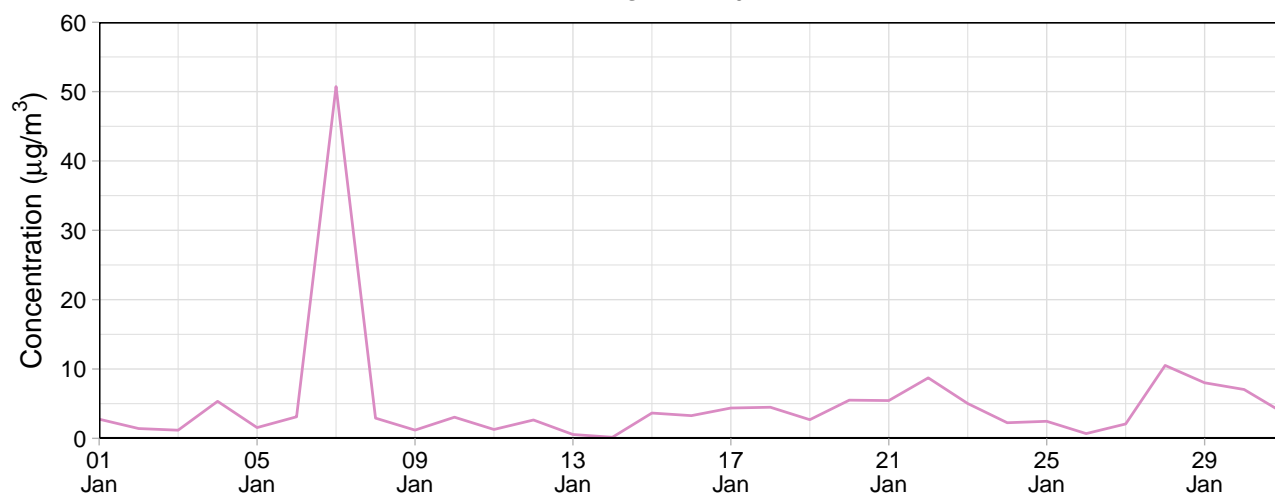
Internal Monitors

Table 2: Summary of 24-hour average data collected at internal monitors ($\mu\text{g}/\text{m}^3$)

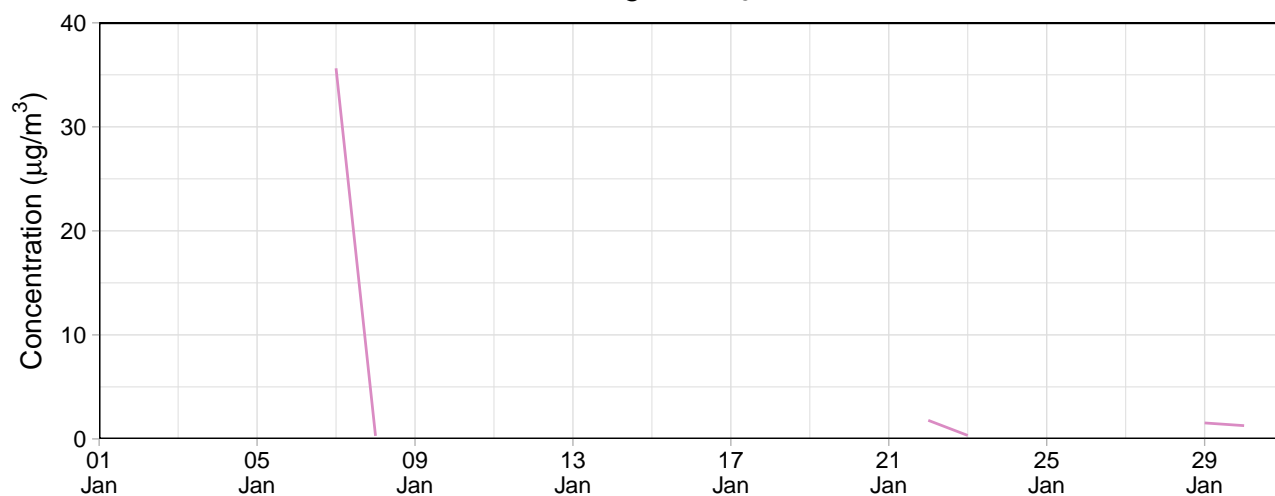
Site	PM ₁₀				PM _{2.5}			
	Min	Avg	Max	Capture (%)	Min	Avg	Max	Capture (%)
Southern Grounds	4.1	7.1	10.7	96.8	3.3	6.1	9.8	96.8
Eastern Grounds	6.2	11.7	18.4	100.0	4.5	8.9	14.3	100.0
Block 9	4.3	12.2	77.2	100.0	2.9	8.4	44.9	100.0
Northern Grounds	0.2	5.1	50.7	100.0	-3.0	0.8	35.6	100.0

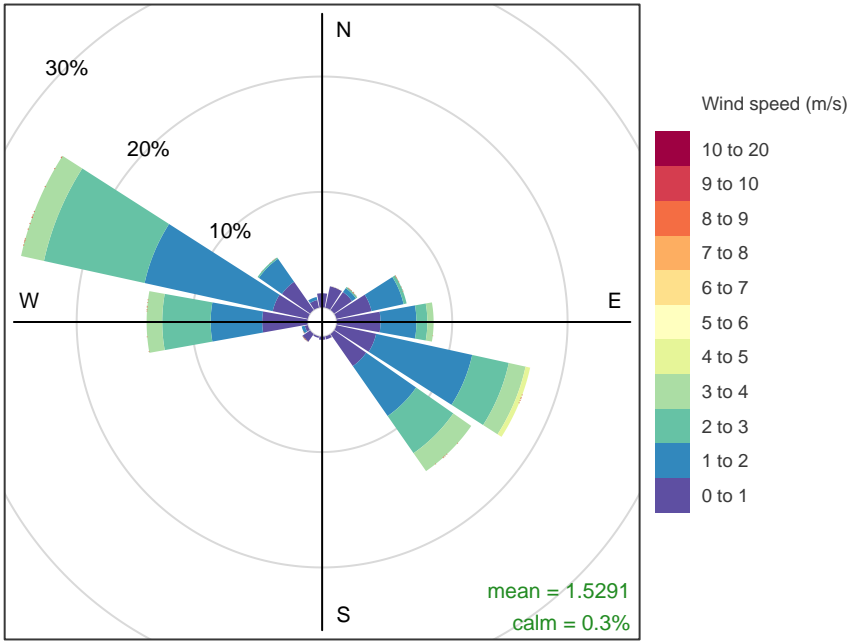
Northern Grounds

Northern Grounds – 24-hour average PM₁₀

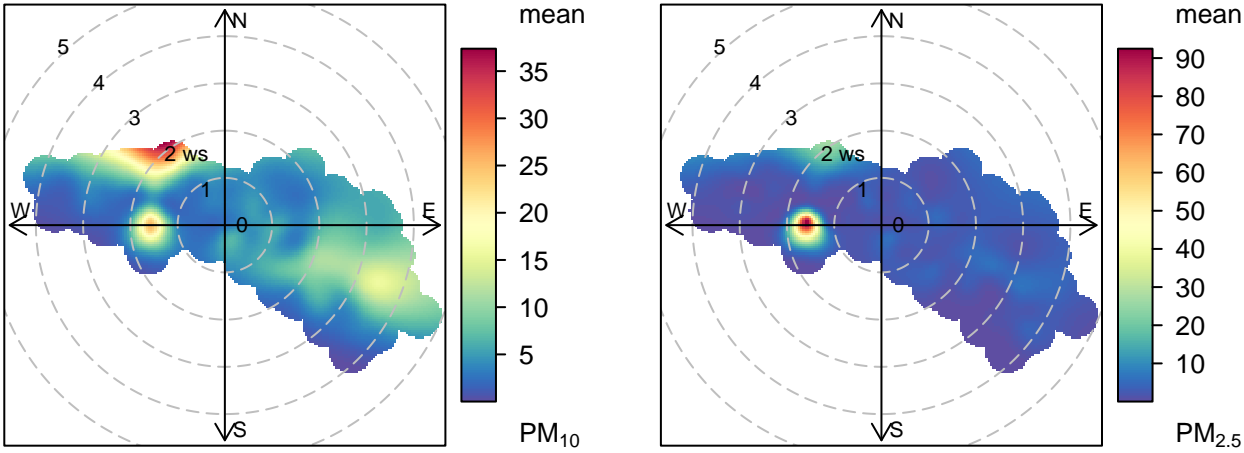


Northern Grounds – 24-hour average PM_{2.5}



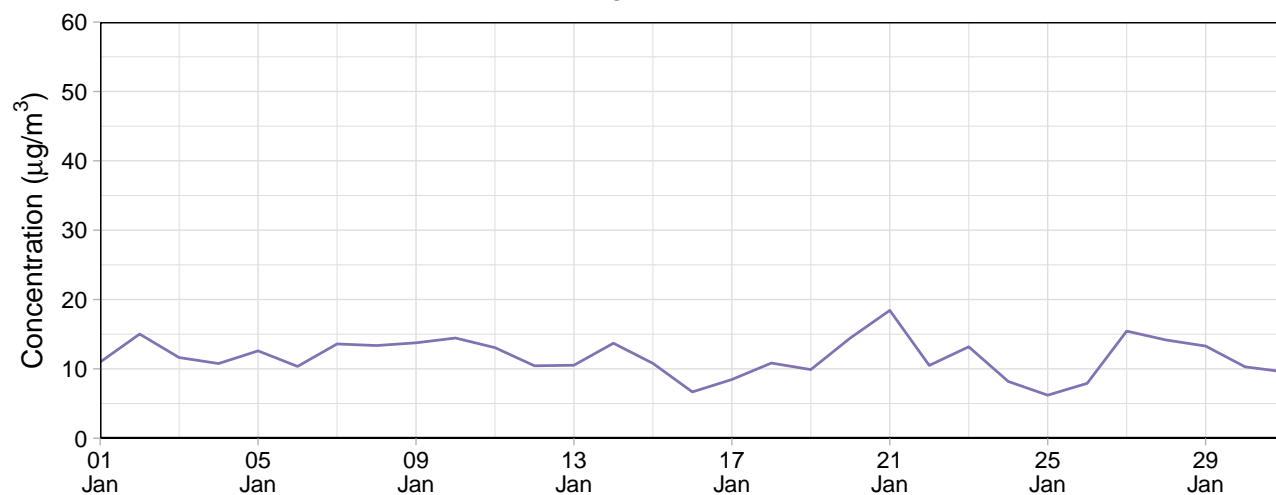


Frequency of counts by wind direction (%)

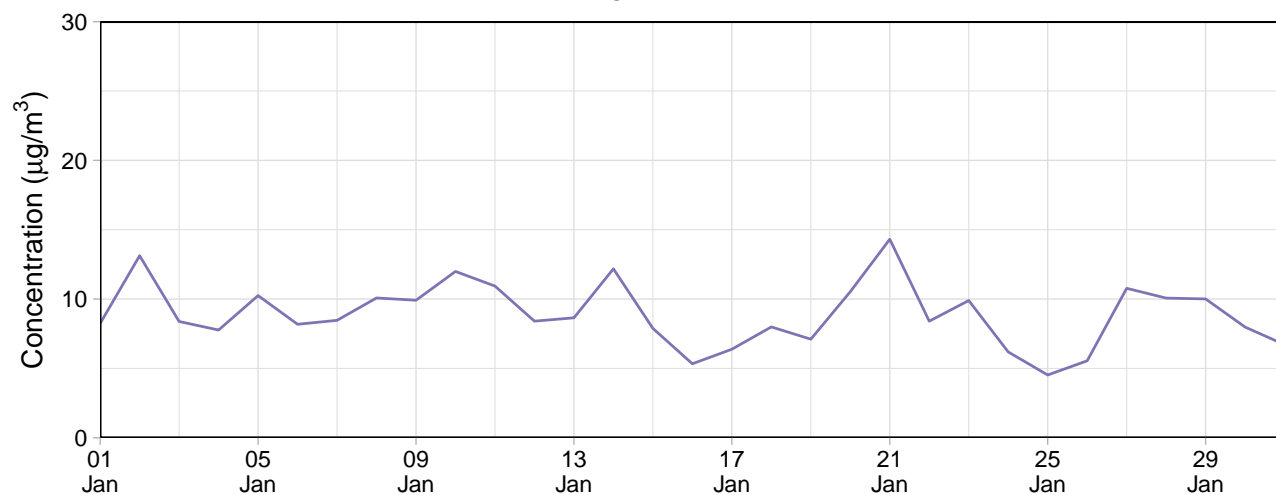


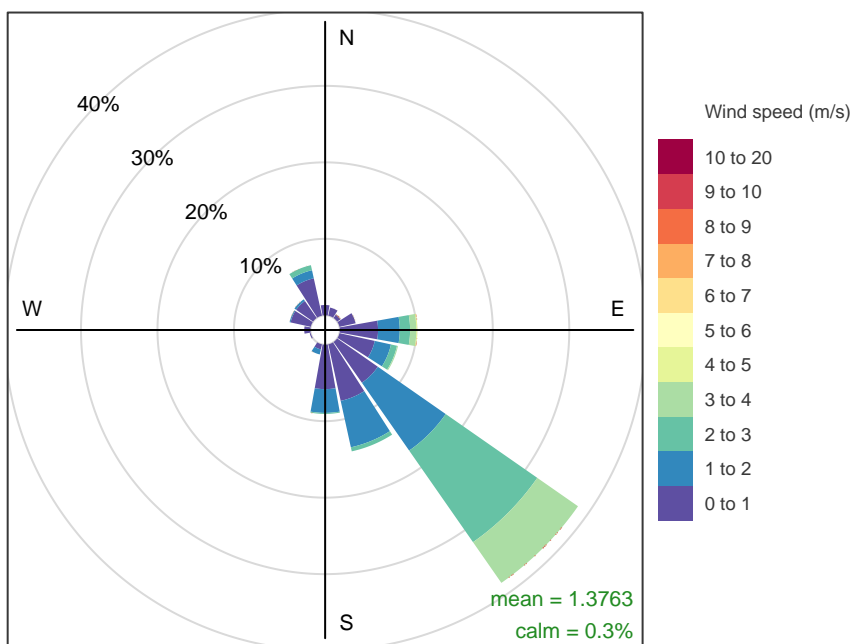
Eastern Grounds

Eastern Grounds – 24-hour average PM₁₀

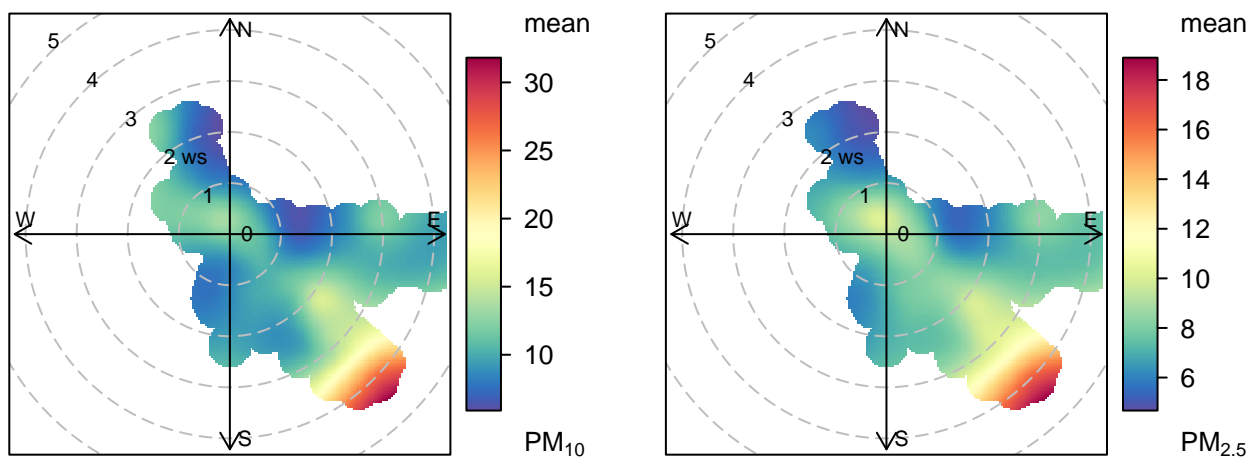


Eastern Grounds – 24-hour average PM_{2.5}



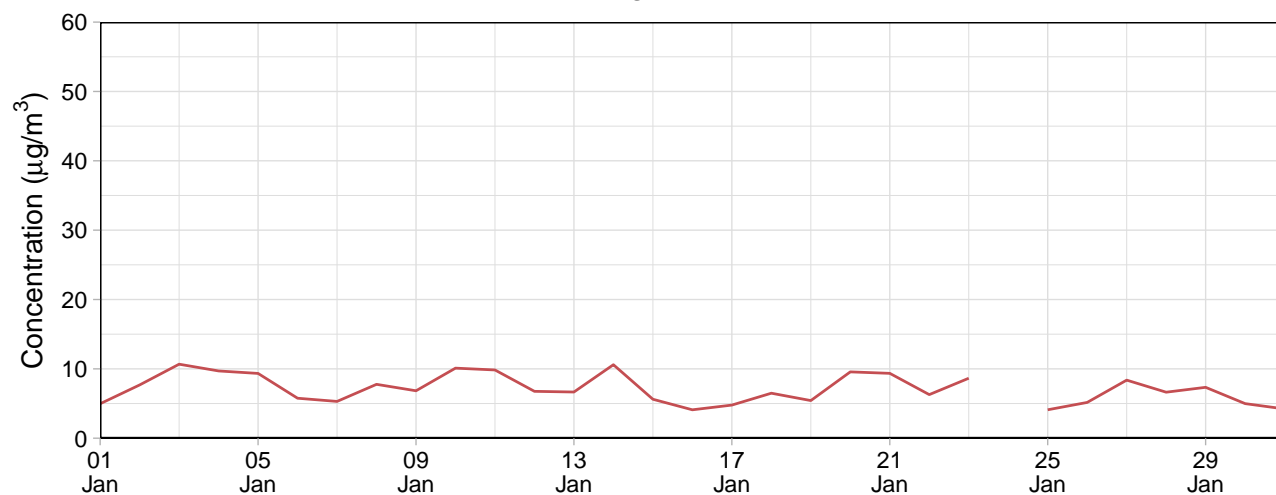


Frequency of counts by wind direction (%)

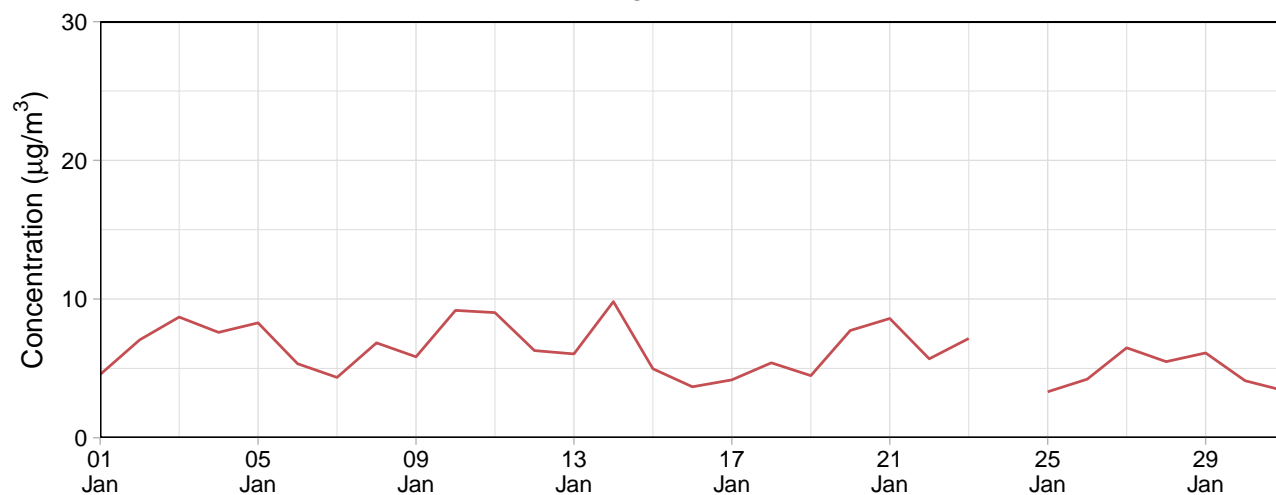


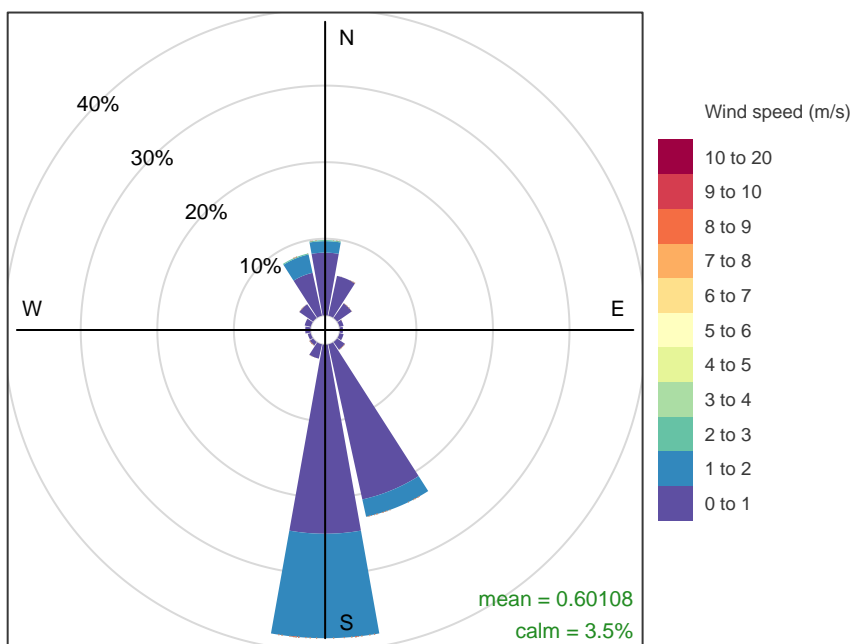
Southern Grounds

Southern Grounds – 24-hour average PM₁₀

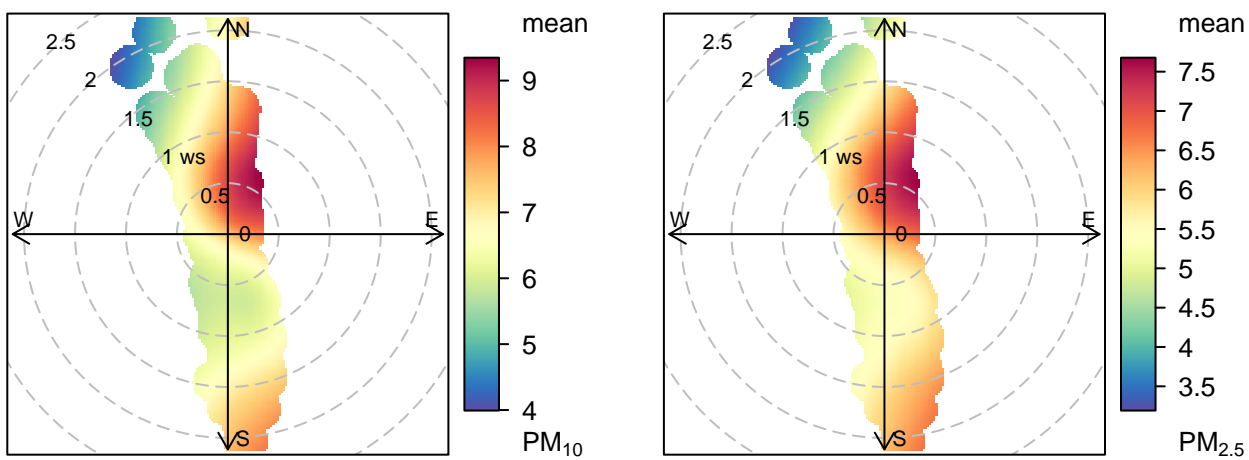


Southern Grounds – 24-hour average PM_{2.5}



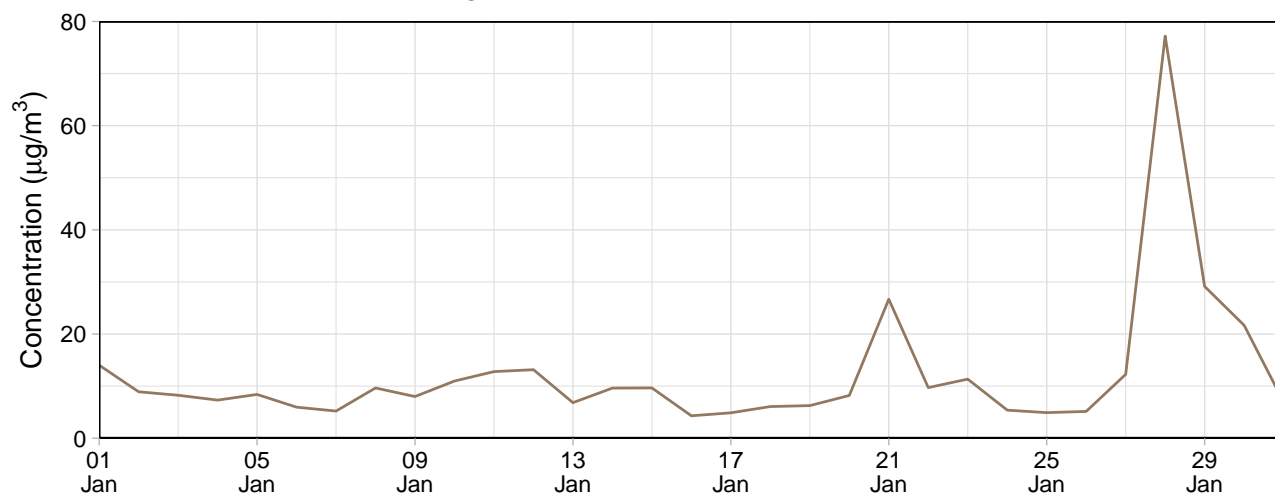


Frequency of counts by wind direction (%)

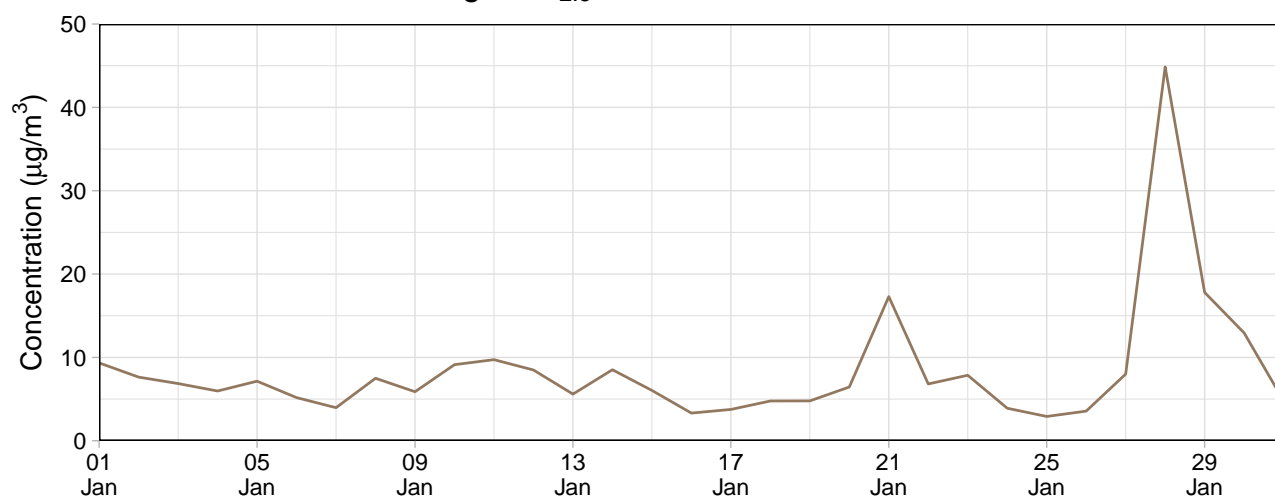


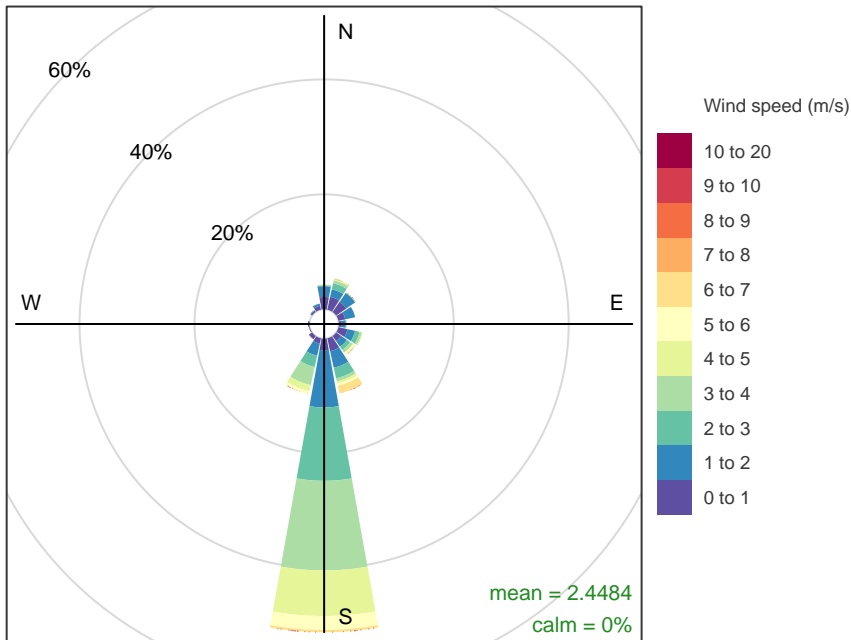
Block 9

Block 9 – 24-hour average PM₁₀

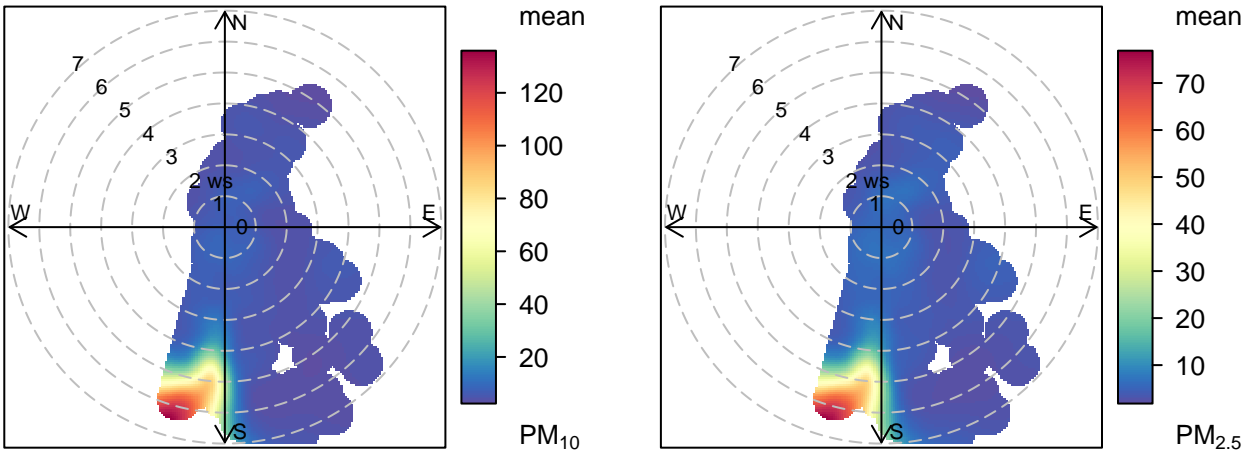


Block 9 – 24-hour average PM_{2.5}





Frequency of counts by wind direction (%)

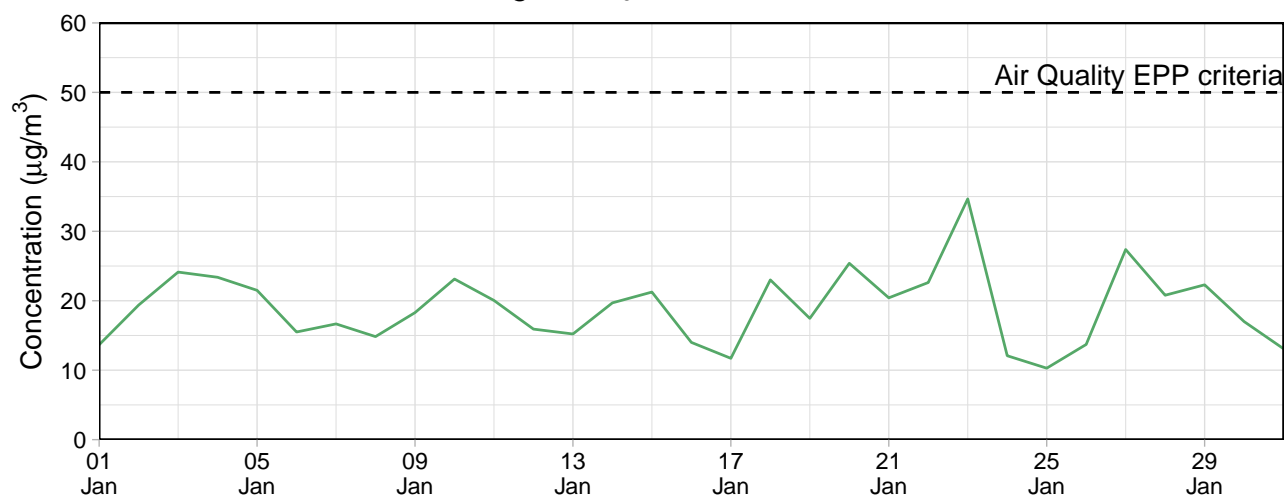
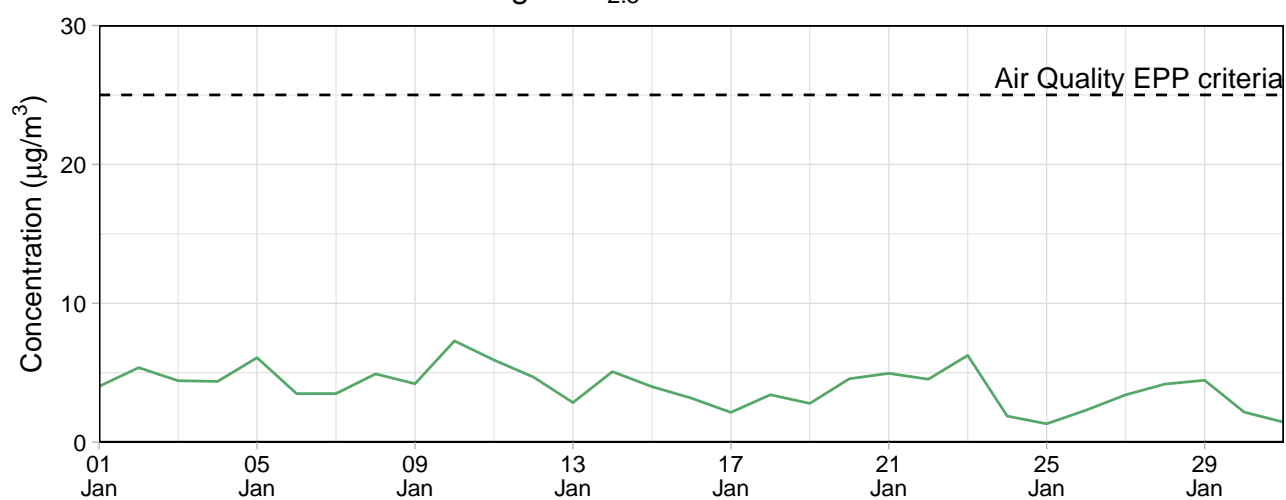


EPA Monitoring

Le Fevre 1

Table 3: Summary of 24-hour average data collected at EPA monitors ($\mu\text{g}/\text{m}^3$)

Site	PM ₁₀				PM _{2.5}			
	Min	Avg	Max	Capture (%)	Min	Avg	Max	Capture (%)
Le Fevre 1	10.3	19	34.7	100	1.3	4	7.3	100

Le Fevre 1 – 24-hour average PM₁₀Le Fevre 1 – 24-hour average PM_{2.5}

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Monitoring Summary (01 Feb, 2025 - 28 Feb, 2025)

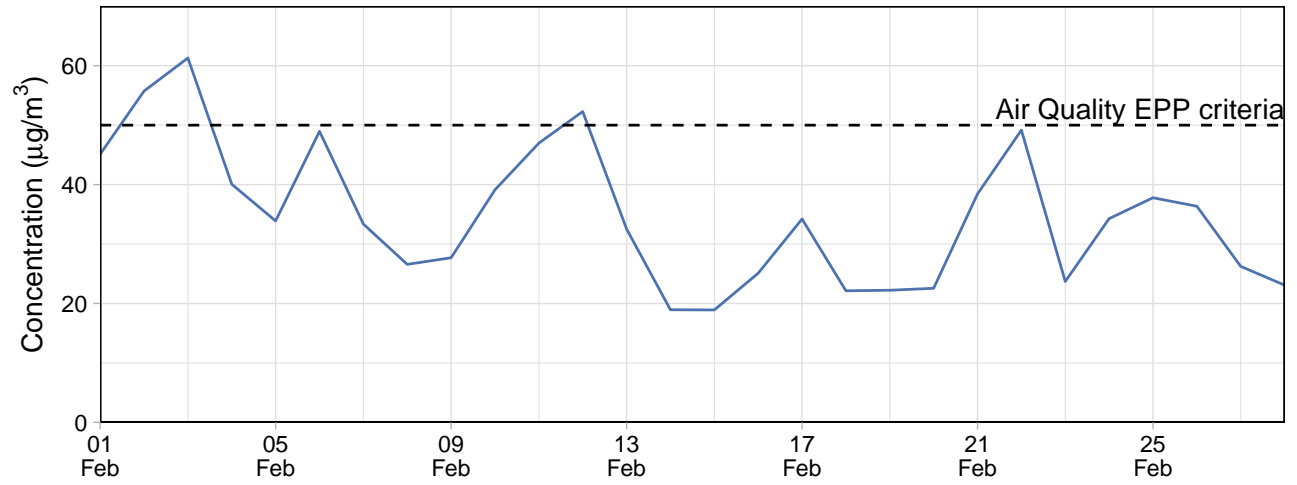
Public Monitors

Table 1: Summary of 24-hour average data collected at public monitors ($\mu\text{g}/\text{m}^3$)

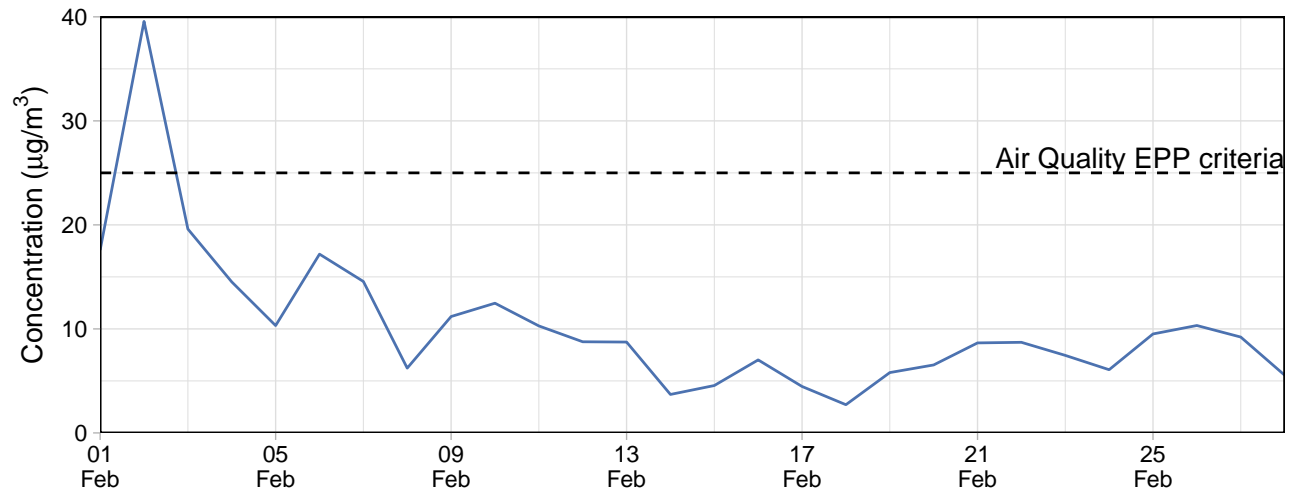
Site	PM ₁₀				PM _{2.5}			
	Min	Avg	Max	Capture (%)	Min	Avg	Max	Capture (%)
Community Park	18.9	34.9	61.3	100	2.7	10.4	39.6	100
BAM								
Walton Street	17.1	30.9	54.8	100	3.2	9.4	36.6	100

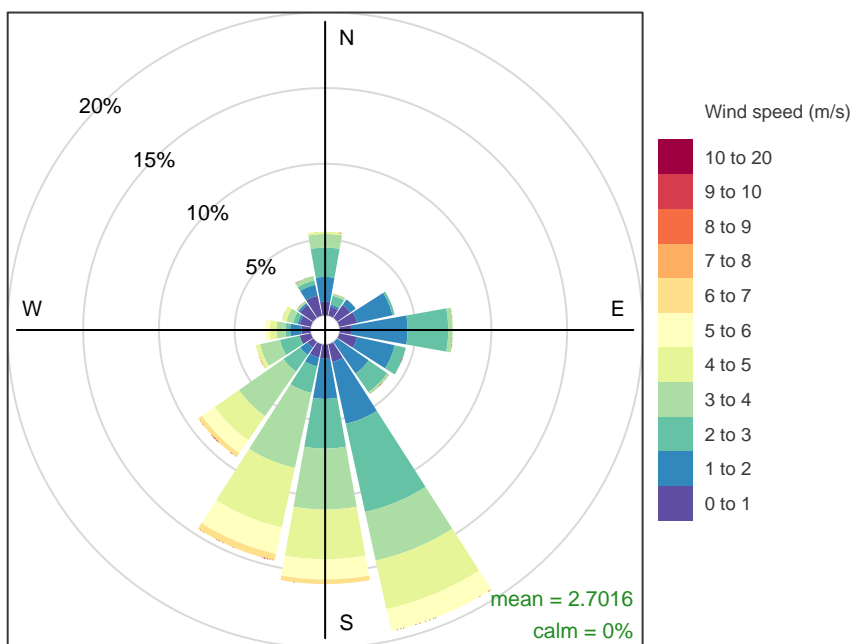
Community Park BAM

Community Park BAM – 24-hour average PM₁₀

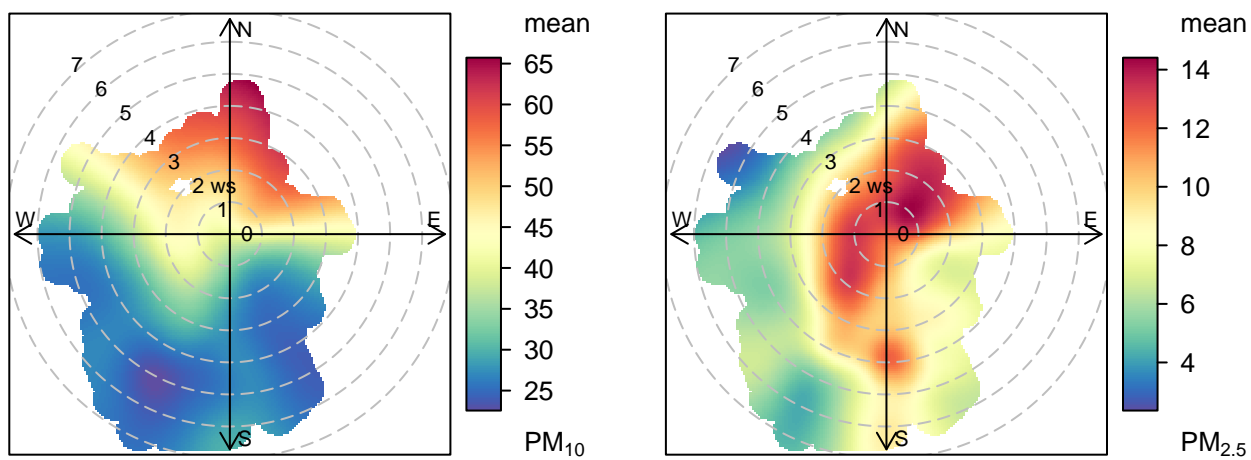


Community Park BAM – 24-hour average PM_{2.5}

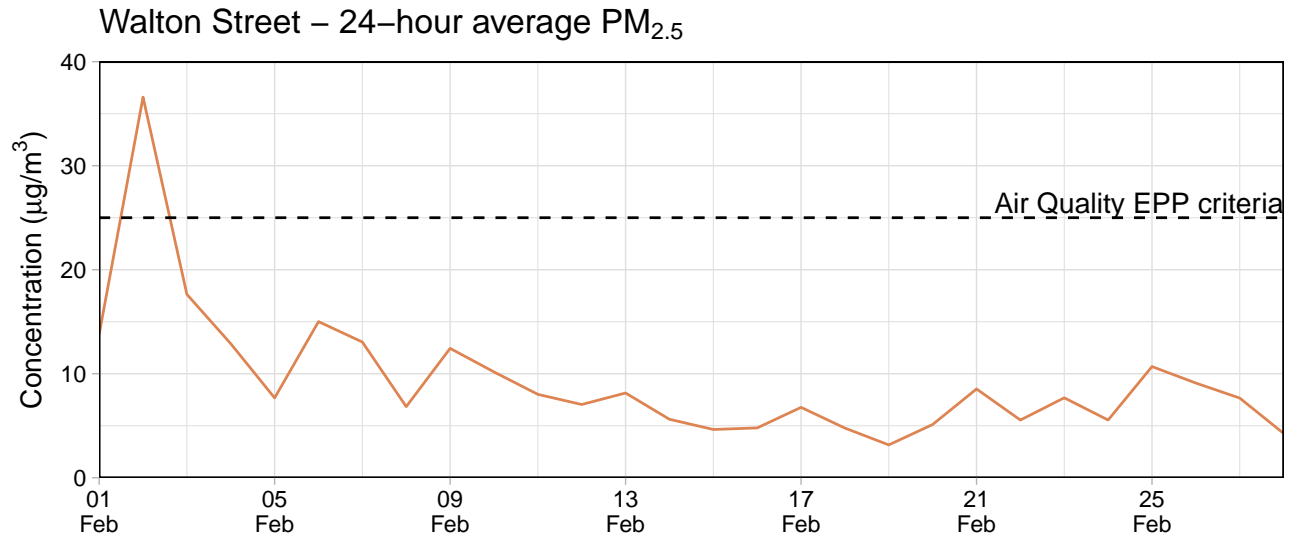
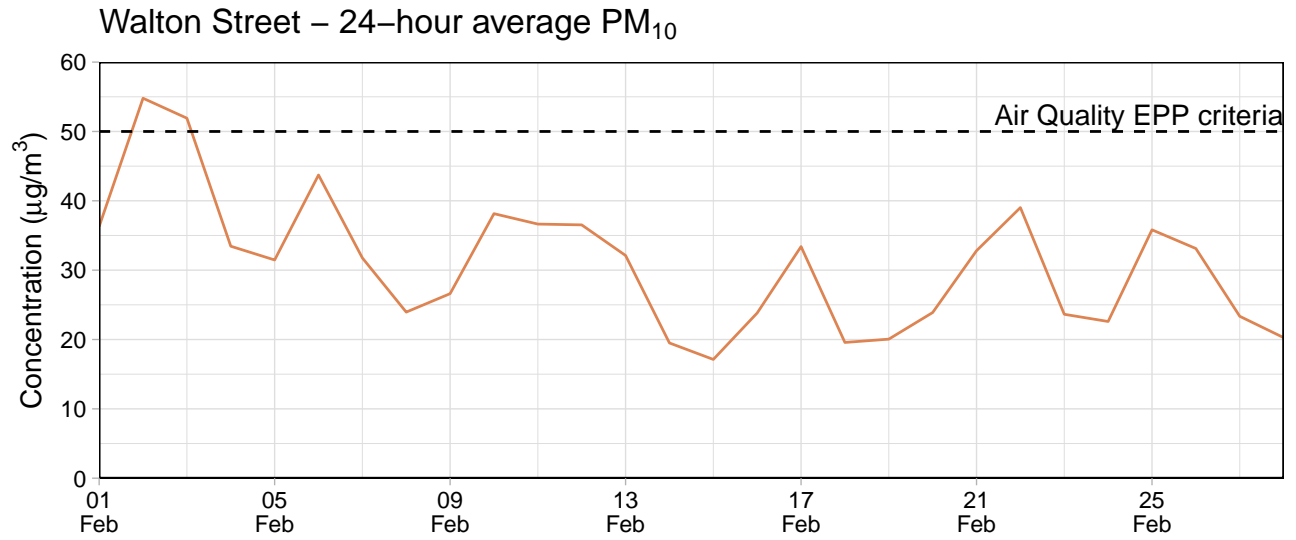


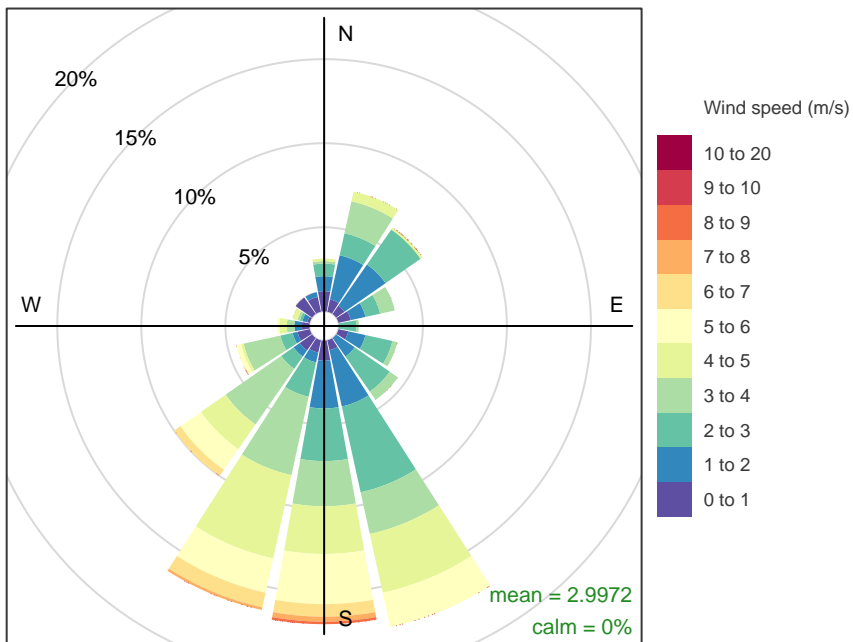


Frequency of counts by wind direction (%)

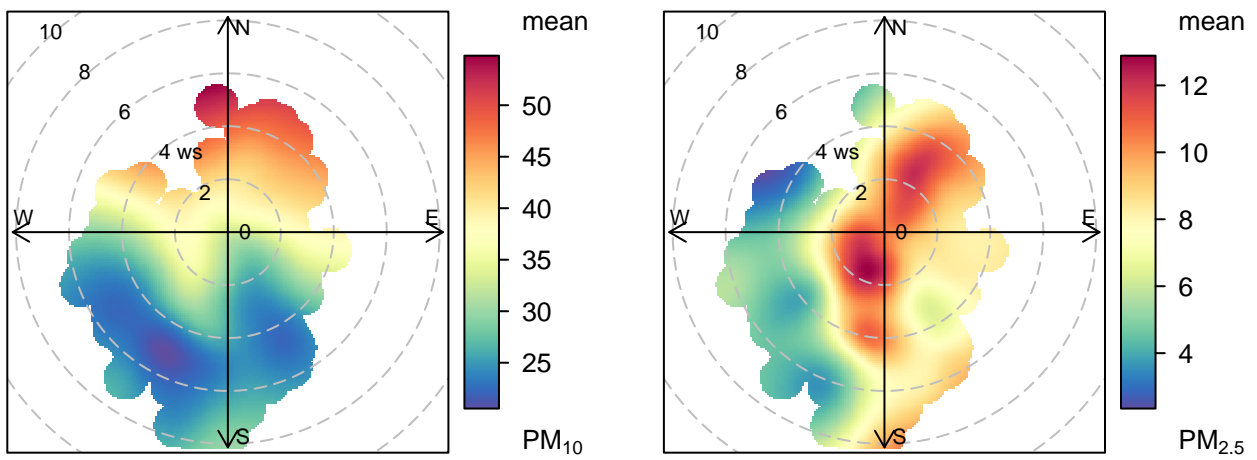


Walton Street





Frequency of counts by wind direction (%)



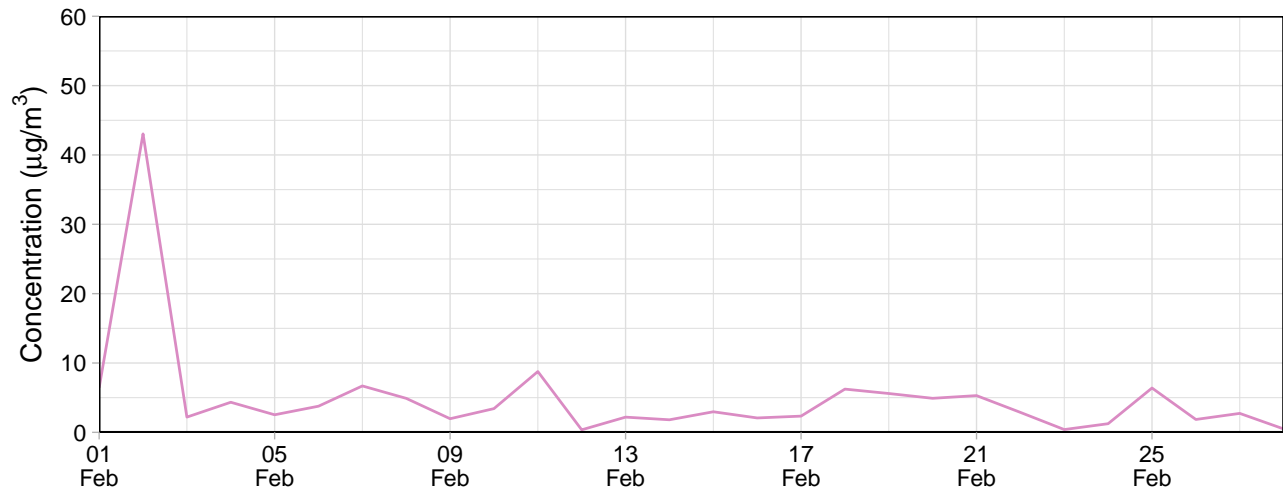
Internal Monitors

Table 2: Summary of 24-hour average data collected at internal monitors ($\mu\text{g}/\text{m}^3$)

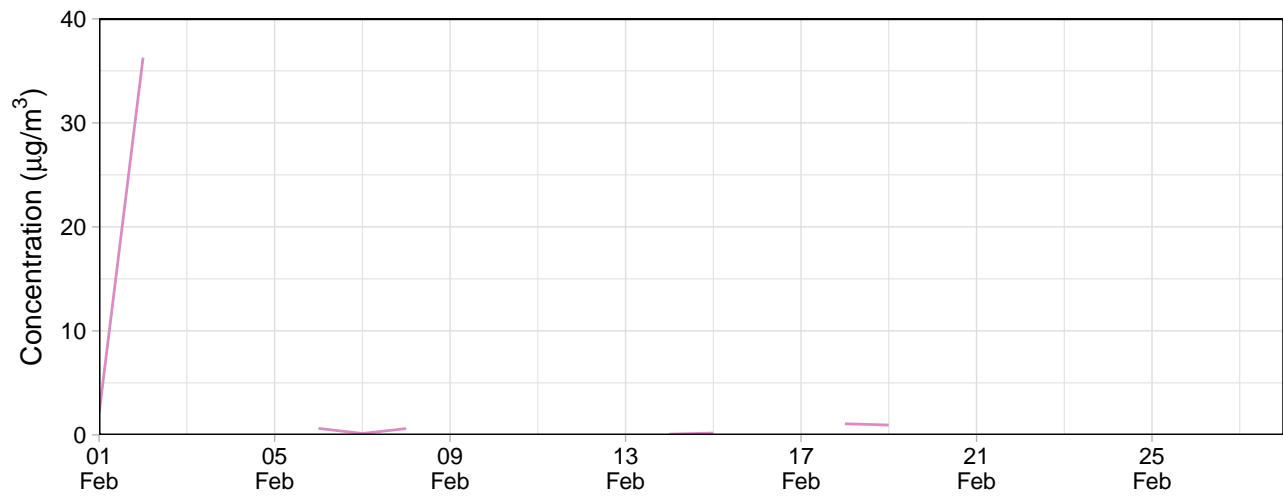
Site	PM ₁₀				PM _{2.5}			
	Min	Avg	Max	Capture (%)	Min	Avg	Max	Capture (%)
Southern Grounds	4.4	15.3	94.8	85.7	4.0	13.5	93.5	85.7
Eastern Grounds	7.2	18.9	102.1	85.7	5.5	15.3	97.6	85.7
Block 9	3.9	16.9	99.9	100.0	3.2	13.6	93.9	100.0
Northern Grounds	0.4	4.9	43.0	100.0	-3.5	1.2	36.3	100.0

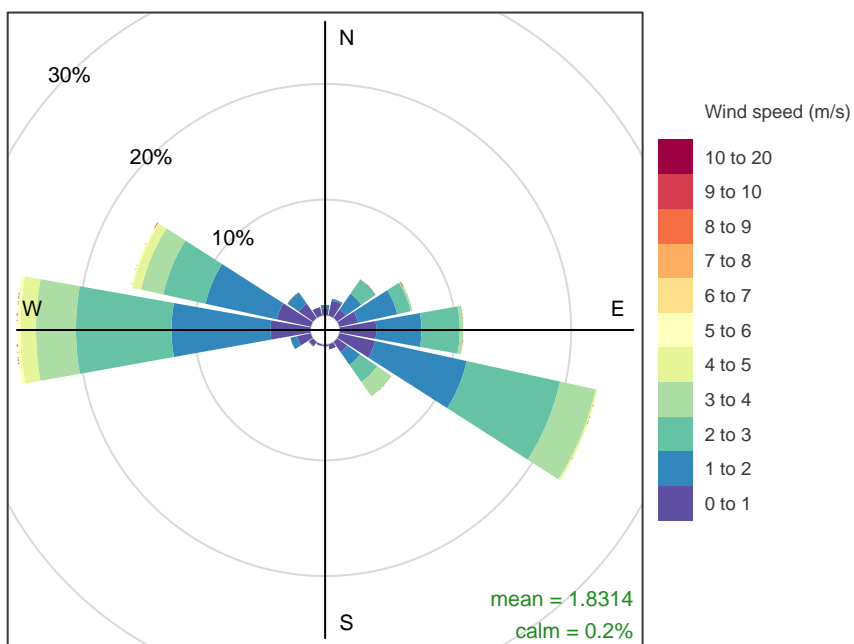
Northern Grounds

Northern Grounds – 24-hour average PM₁₀

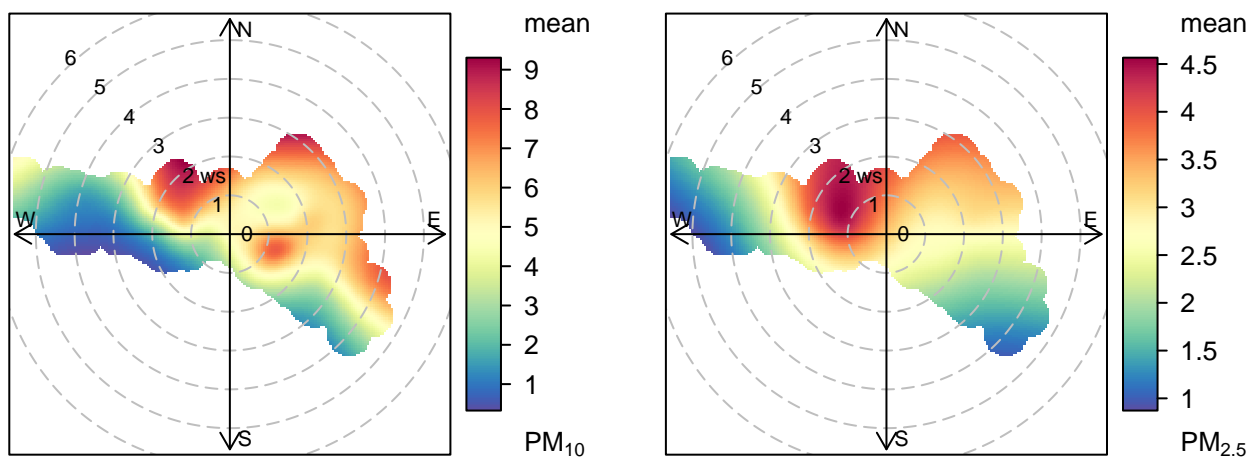


Northern Grounds – 24-hour average PM_{2.5}



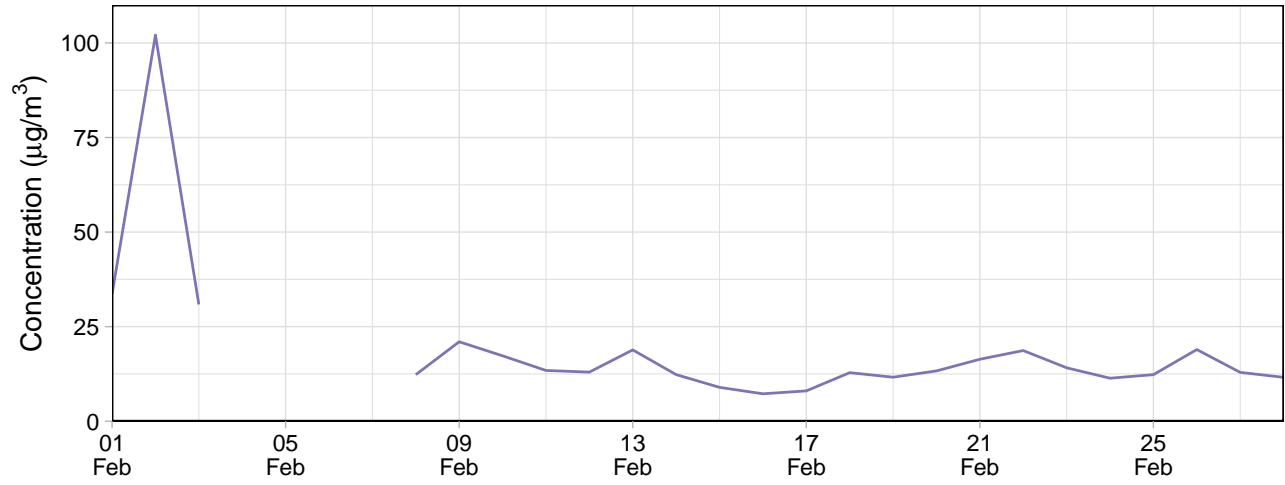


Frequency of counts by wind direction (%)

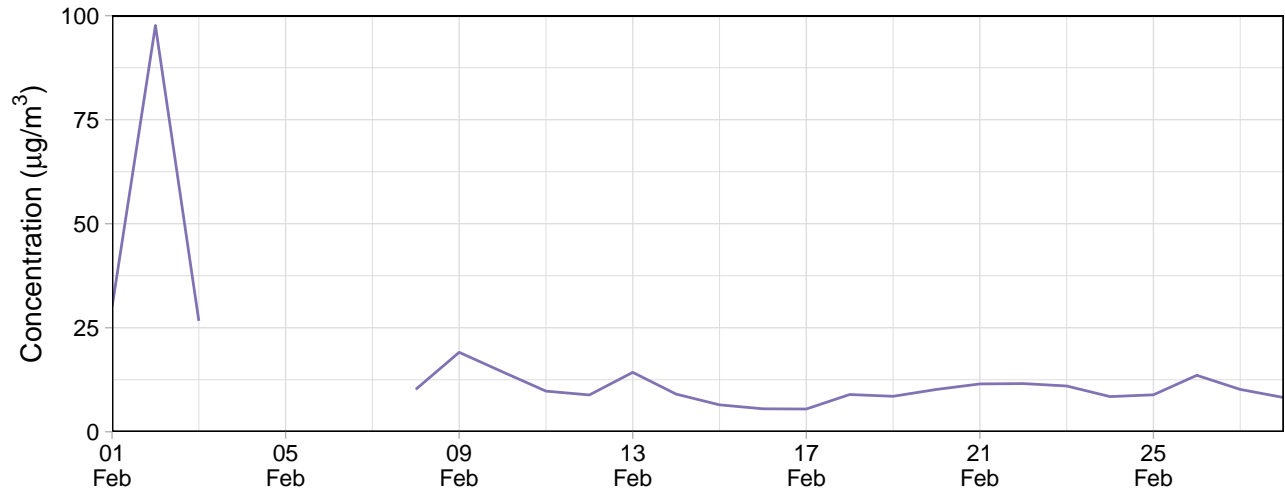


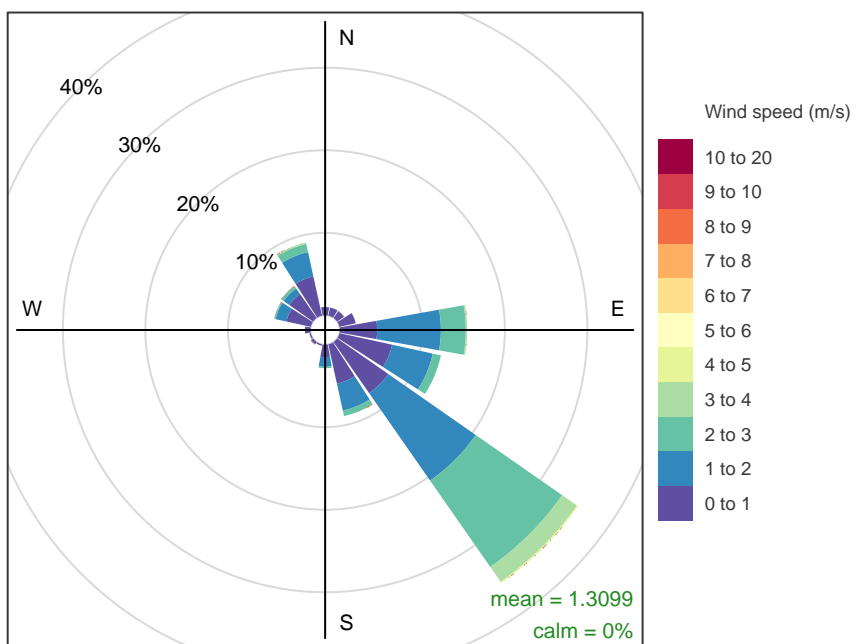
Eastern Grounds

Eastern Grounds – 24-hour average PM₁₀

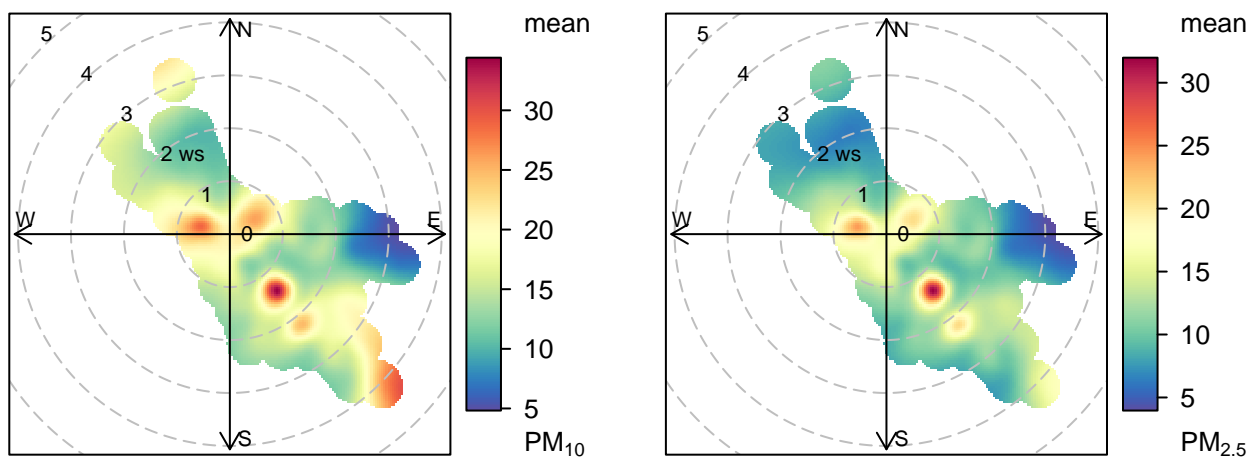


Eastern Grounds – 24-hour average PM_{2.5}



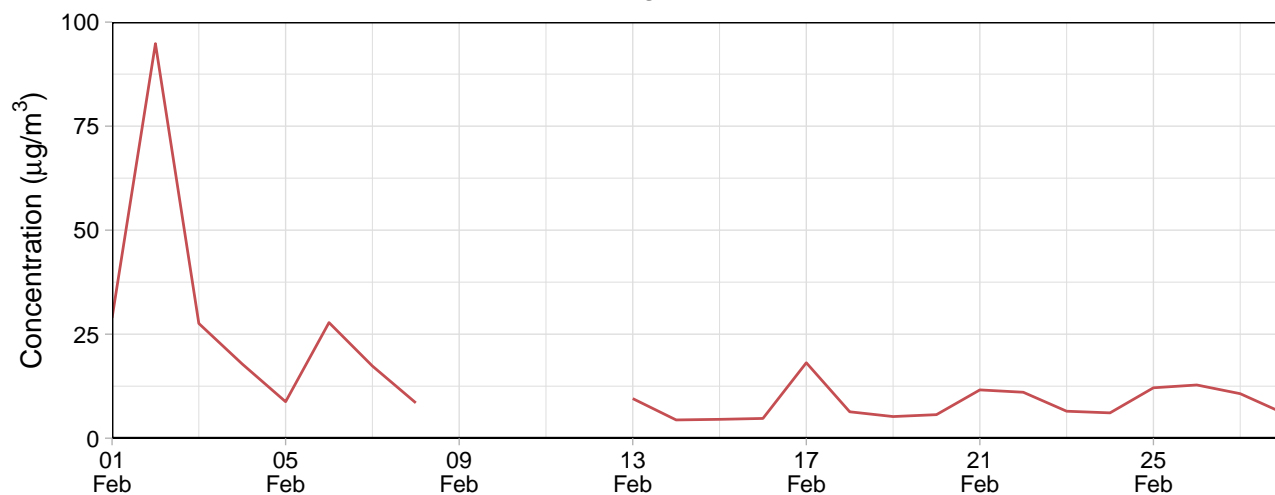


Frequency of counts by wind direction (%)

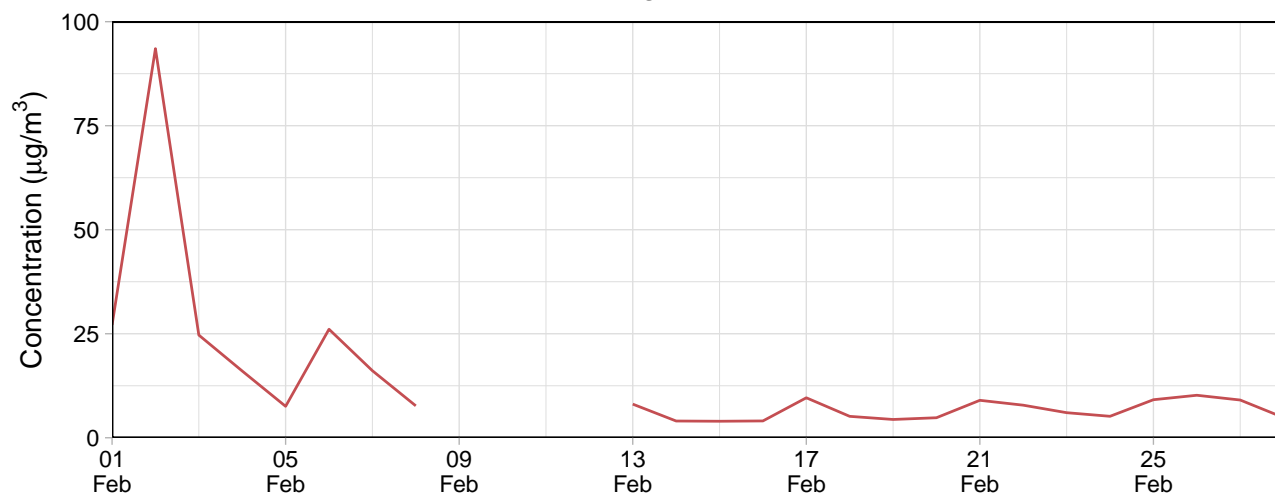


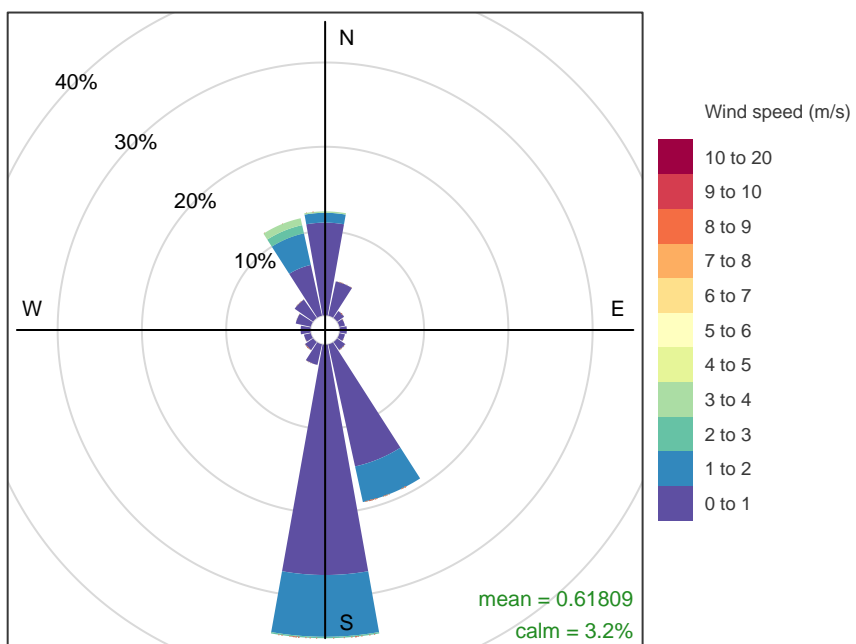
Southern Grounds

Southern Grounds – 24-hour average PM₁₀

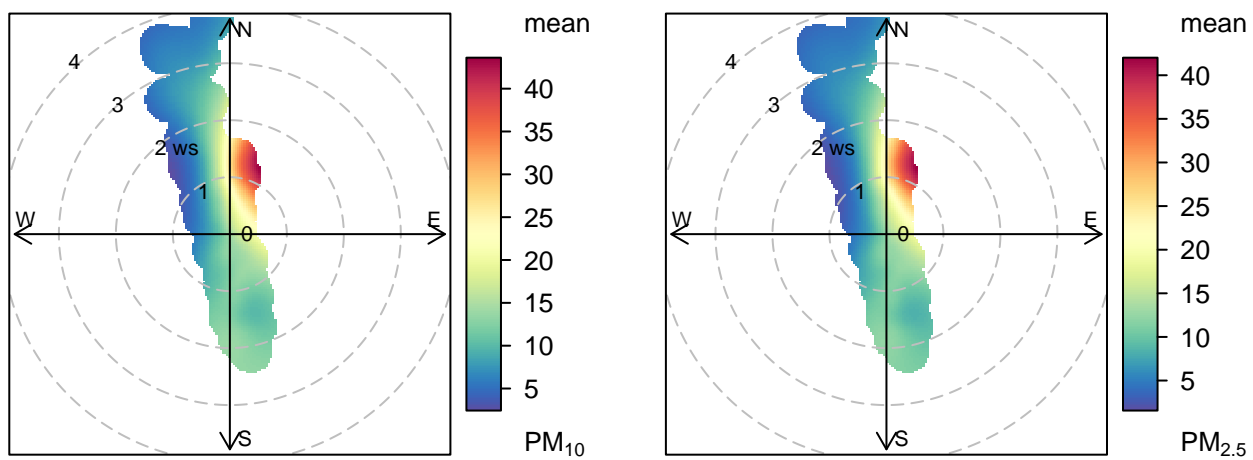


Southern Grounds – 24-hour average PM_{2.5}



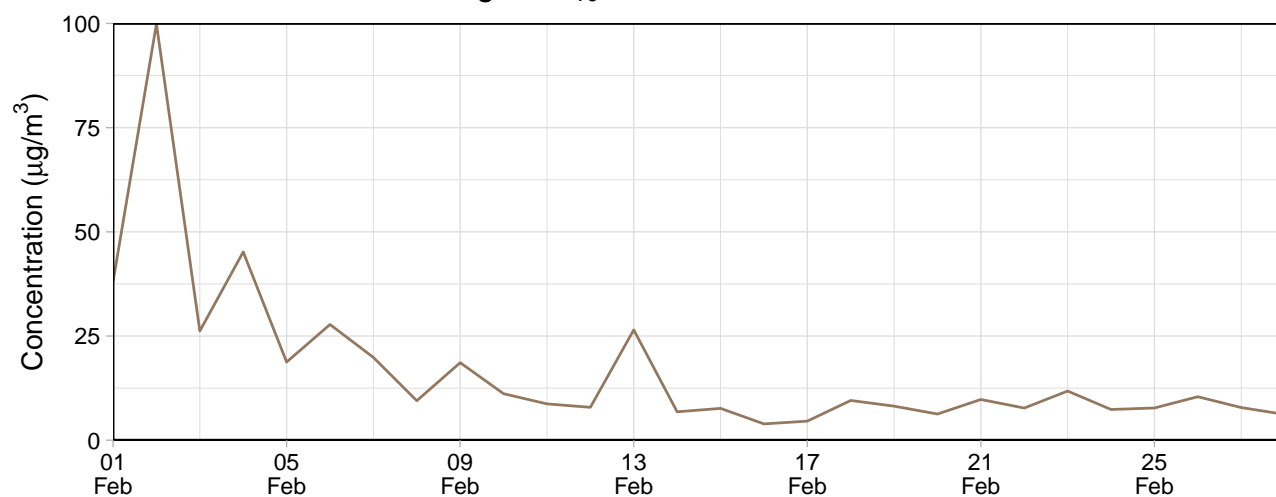


Frequency of counts by wind direction (%)

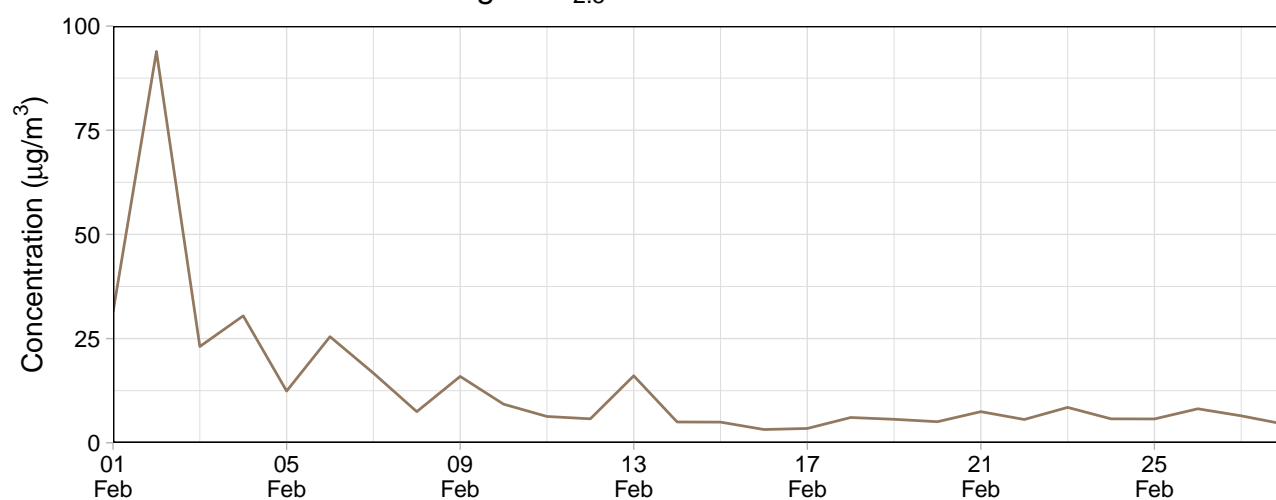


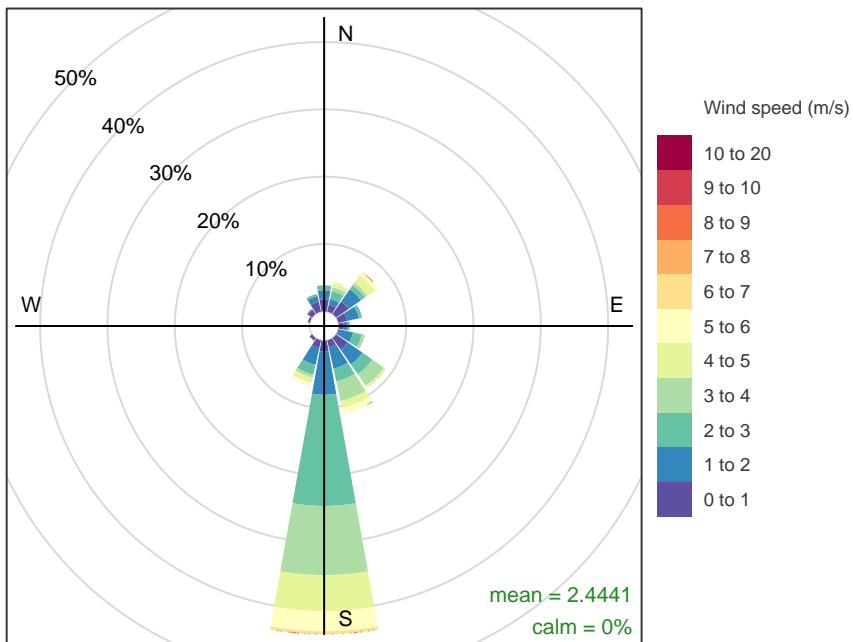
Block 9

Block 9 – 24-hour average PM₁₀

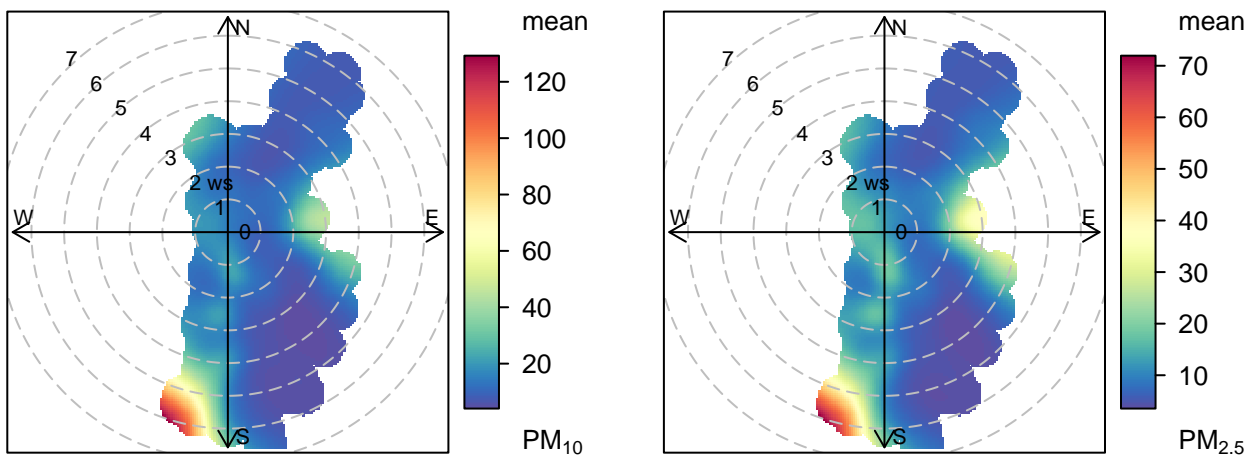


Block 9 – 24-hour average PM_{2.5}





Frequency of counts by wind direction (%)



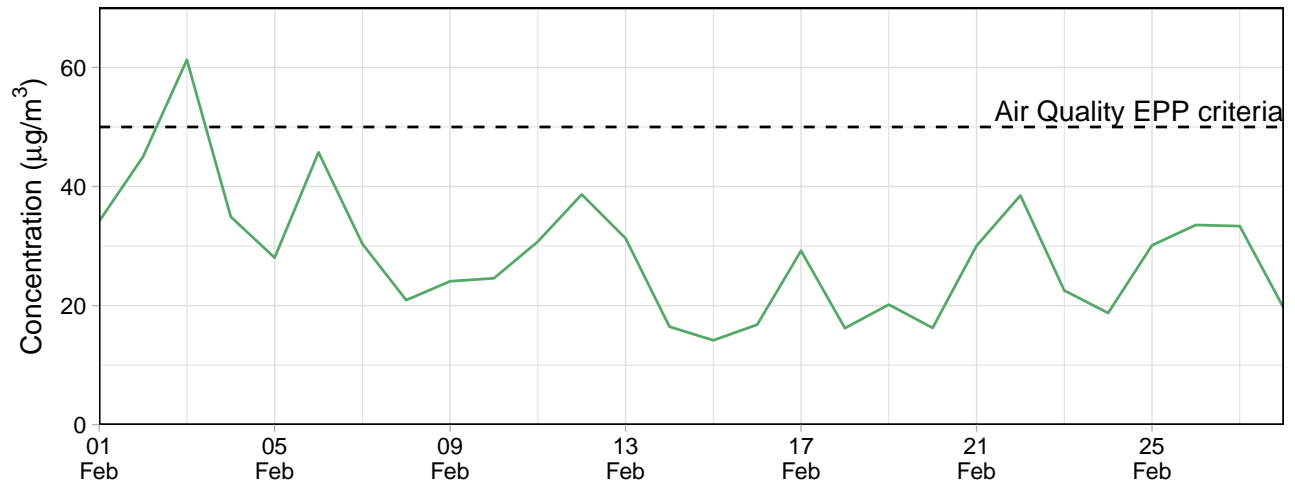
EPA Monitoring

Le Fevre 1

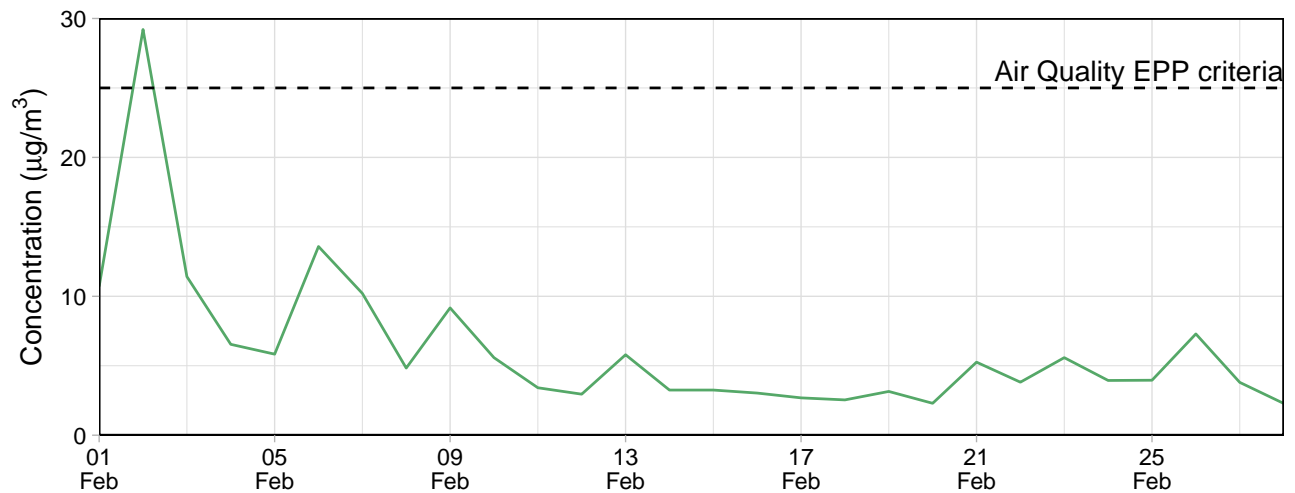
Table 3: Summary of 24-hour average data collected at EPA monitors ($\mu\text{g}/\text{m}^3$)

Site	PM ₁₀				PM _{2.5}			
	Min	Avg	Max	Capture (%)	Min	Avg	Max	Capture (%)
Le Fevre 1	14.2	28.8	61.3	100	2.3	6.3	29.2	100

Le Fevre 1 – 24-hour average PM₁₀



Le Fevre 1 – 24-hour average PM_{2.5}



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Monitoring Summary (01 Mar, 2025 - 31 Mar, 2025)

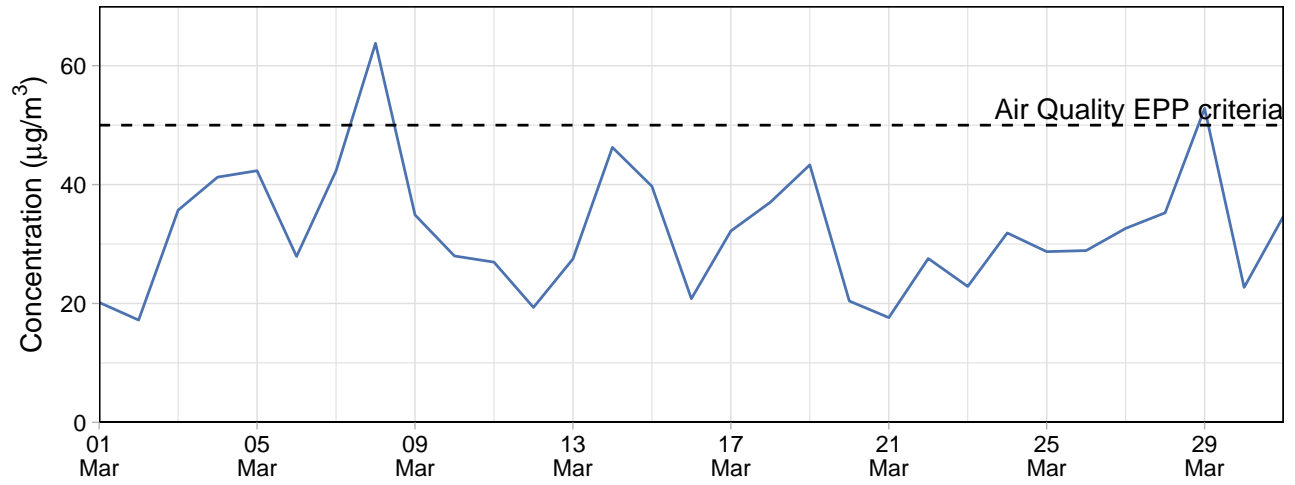
Public Monitors

Table 1: Summary of 24-hour average data collected at public monitors ($\mu\text{g}/\text{m}^3$)

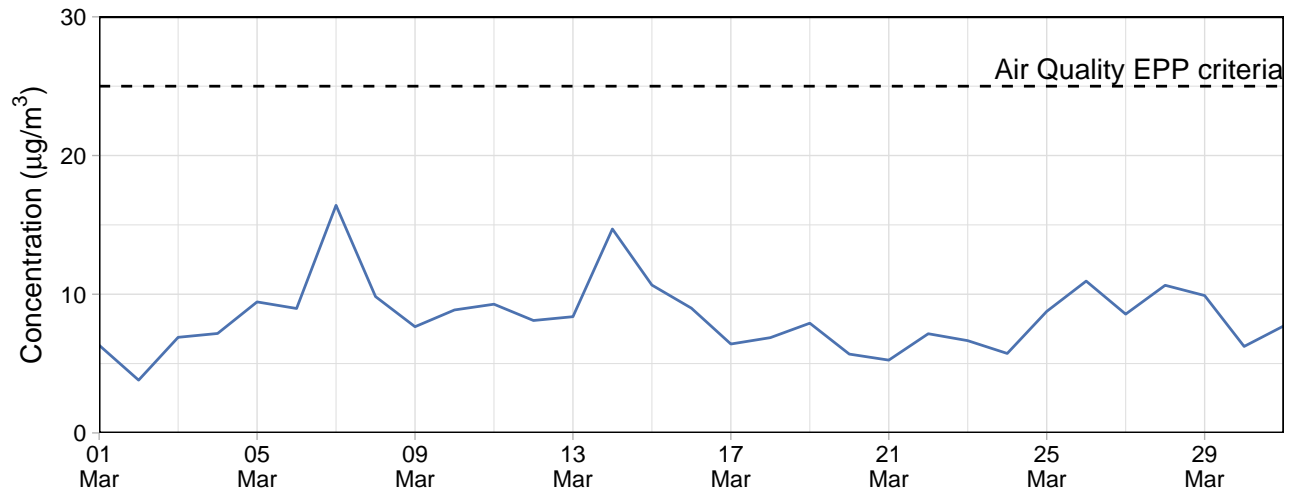
Site	PM ₁₀				PM _{2.5}			
	Min	Avg	Max	Capture (%)	Min	Avg	Max	Capture (%)
Community Park	17.2	32.3	63.8	100.0	3.8	8.4	16.4	100.0
BAM								
Walton Street	15.7	28.2	45.7	96.8	4.0	7.1	13.3	96.8

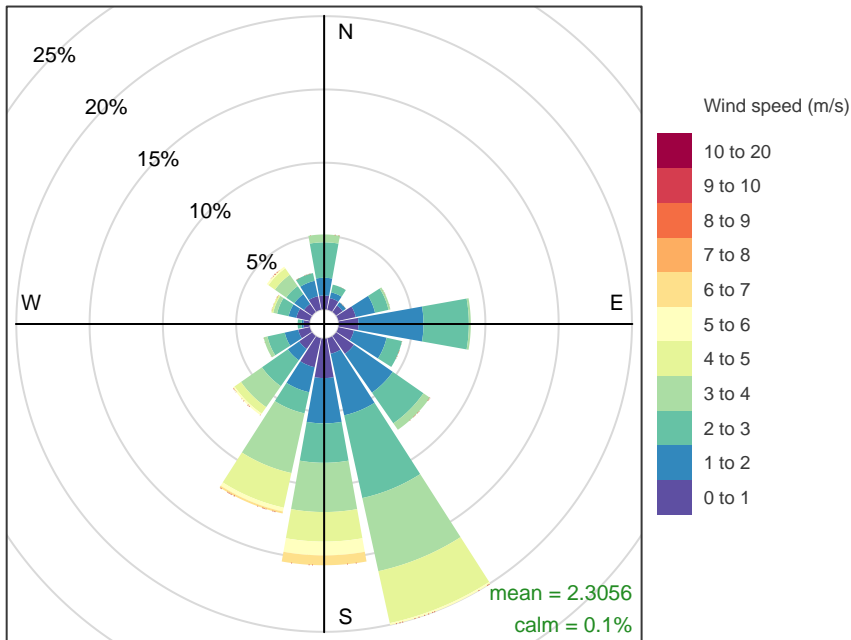
Community Park BAM

Community Park BAM – 24-hour average PM₁₀

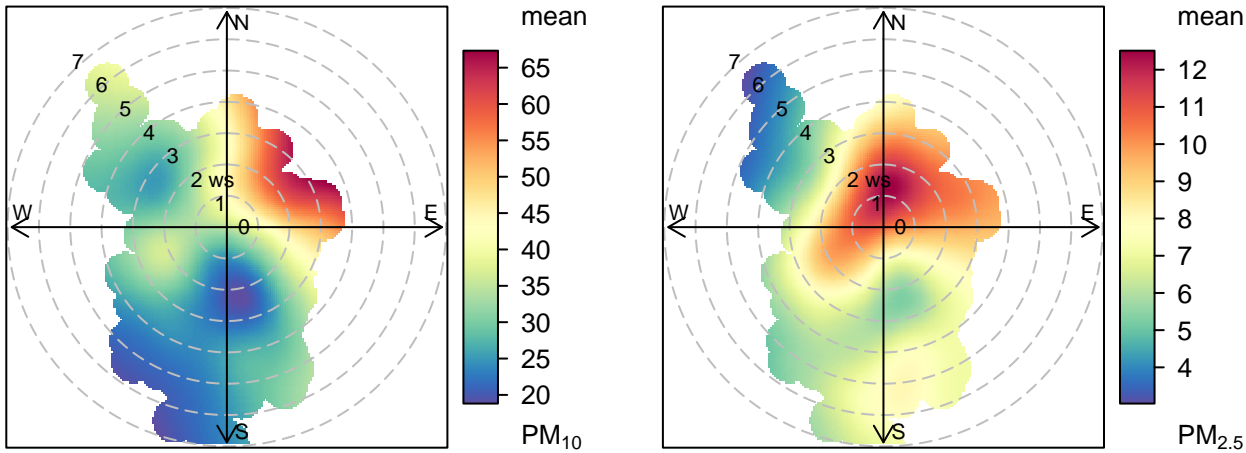


Community Park BAM – 24-hour average PM_{2.5}

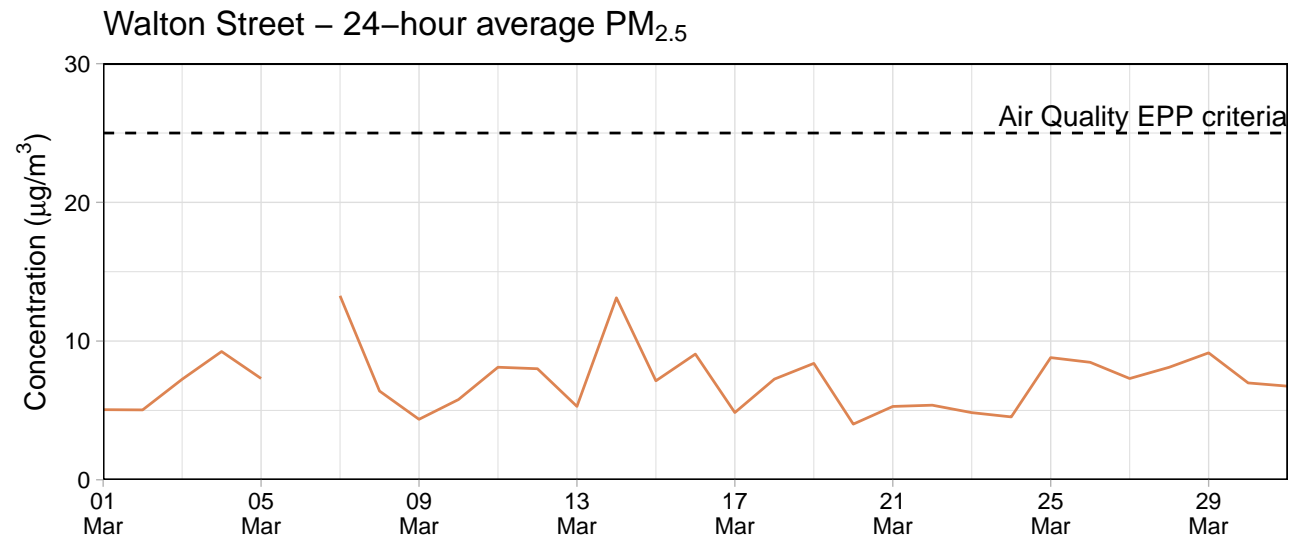
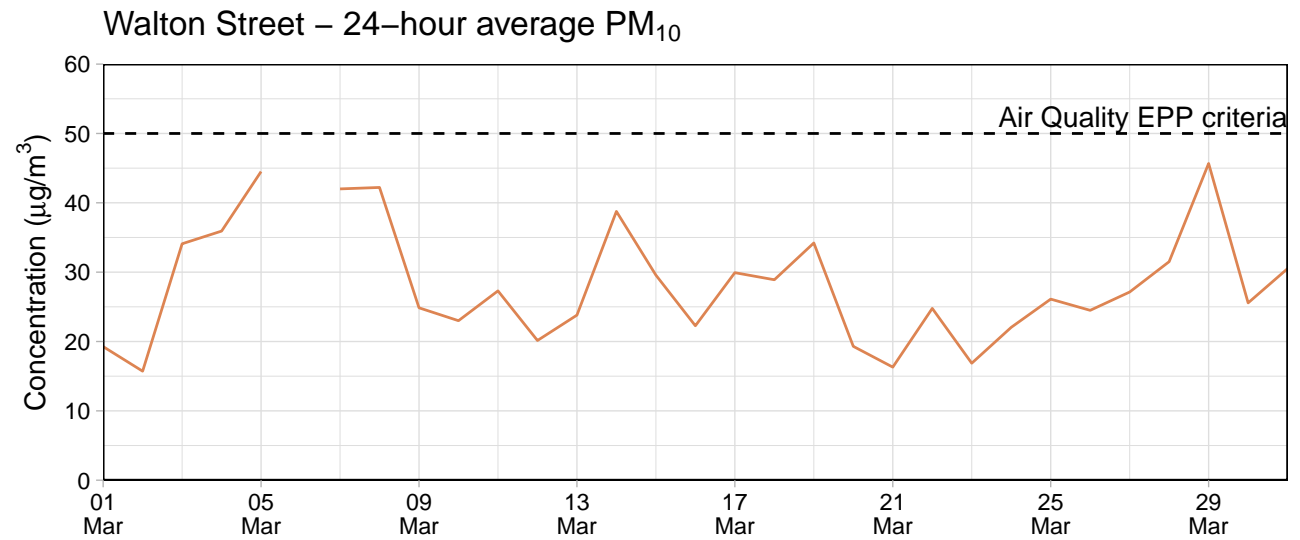


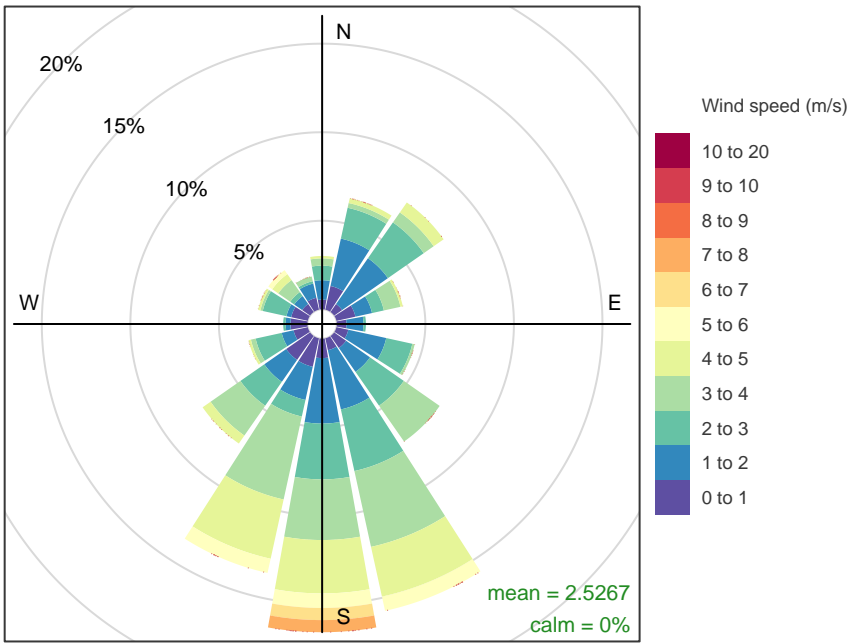


Frequency of counts by wind direction (%)

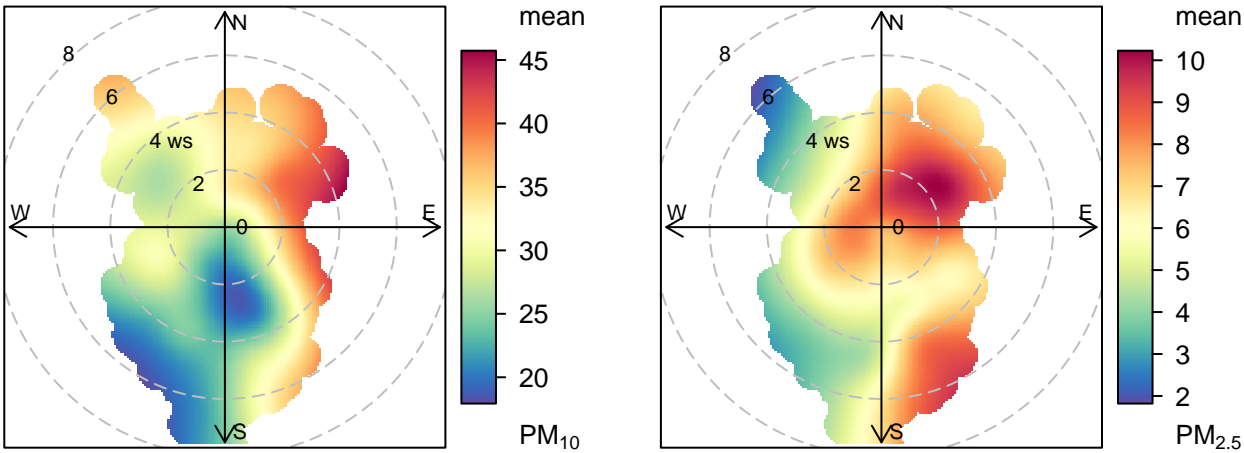


Walton Street





Frequency of counts by wind direction (%)



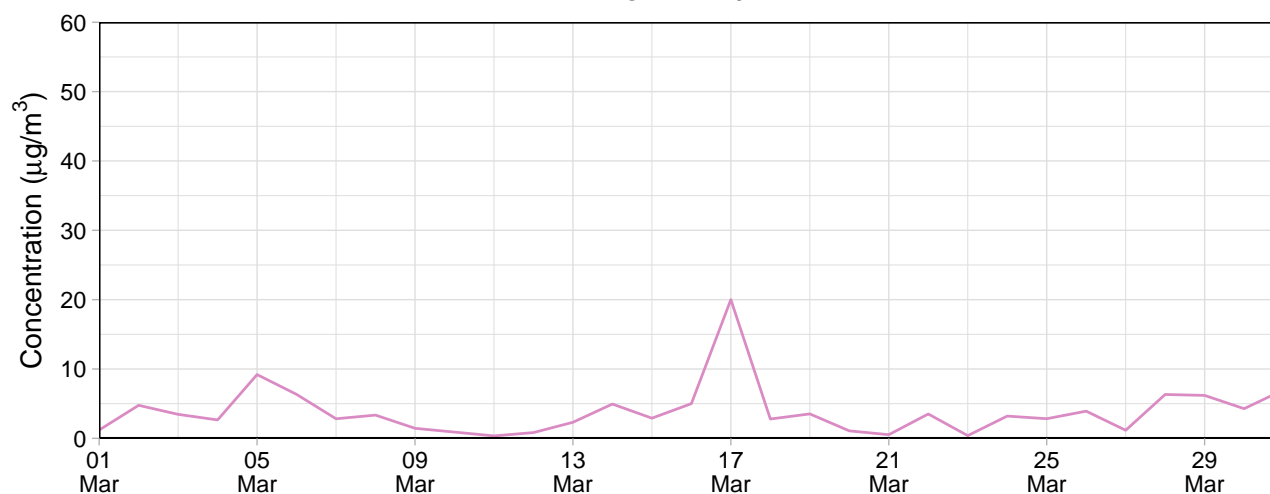
Internal Monitors

Table 2: Summary of 24-hour average data collected at internal monitors ($\mu\text{g}/\text{m}^3$)

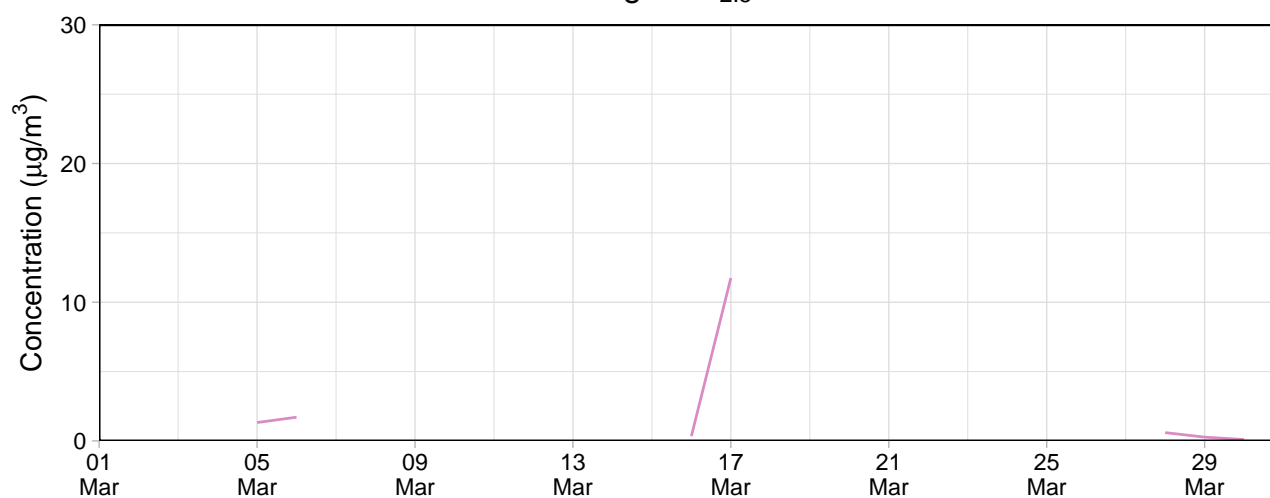
Site	PM ₁₀				PM _{2.5}			
	Min	Avg	Max	Capture (%)	Min	Avg	Max	Capture (%)
Southern Grounds	4.7	9.9	20.2	100	3.9	8.1	17.0	100
Eastern Grounds	6.9	14.3	23.2	100	5.0	10.6	18.6	100
Block 9	3.6	9.1	18.8	100	2.9	7.0	13.8	100
Northern Grounds	0.4	3.8	20.0	100	-2.3	-0.1	11.7	100

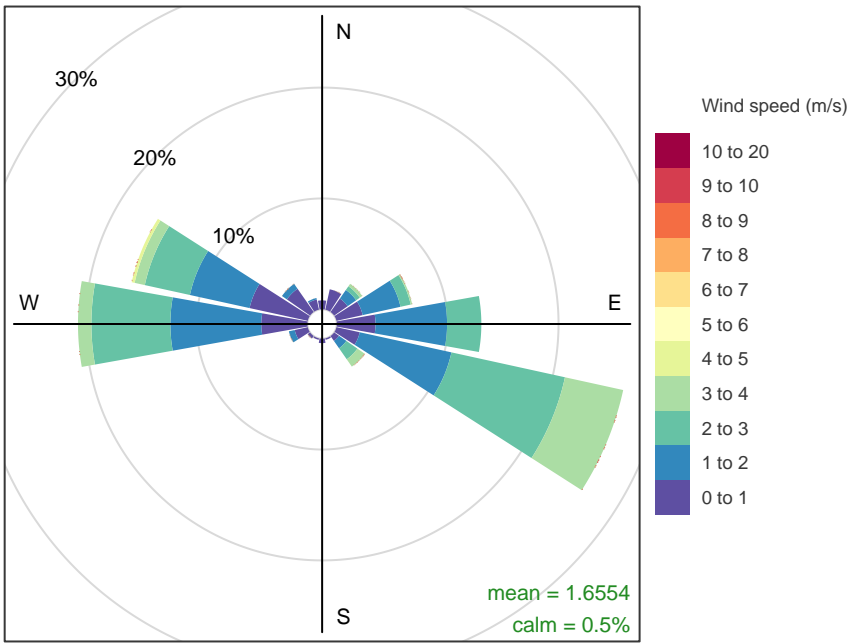
Northern Grounds

Northern Grounds – 24-hour average PM₁₀

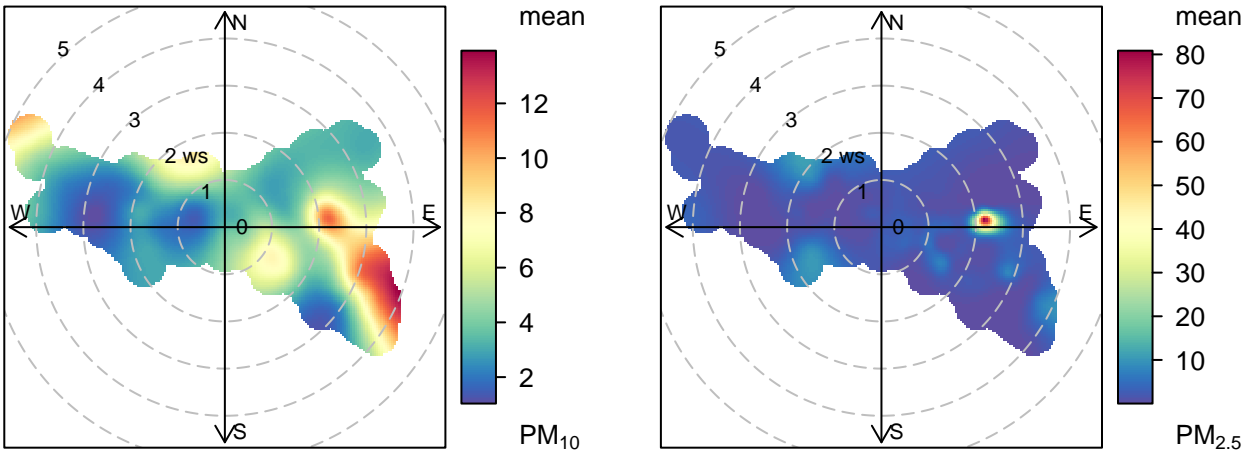


Northern Grounds – 24-hour average PM_{2.5}



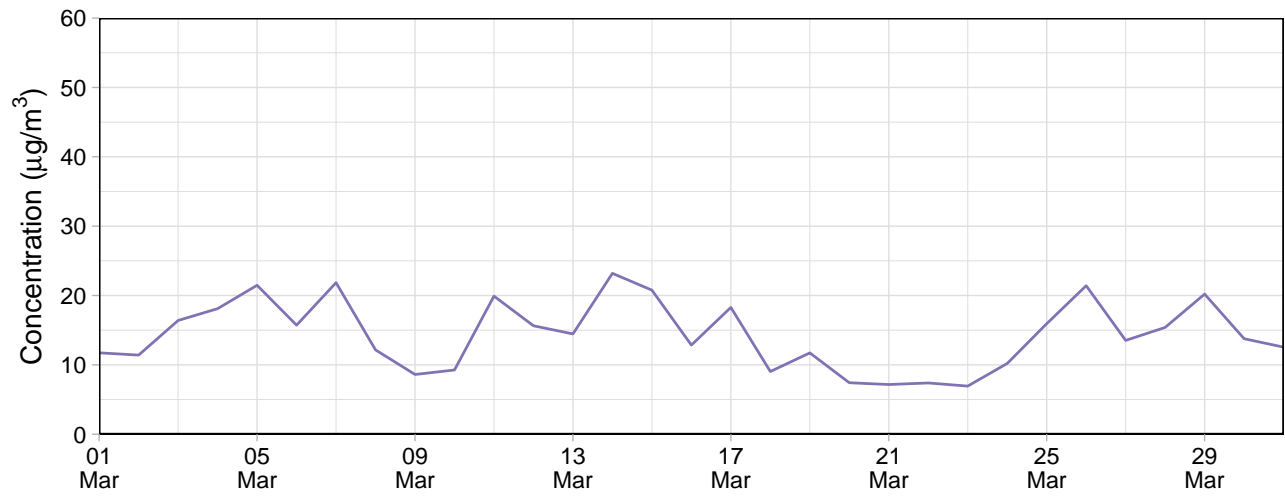


Frequency of counts by wind direction (%)

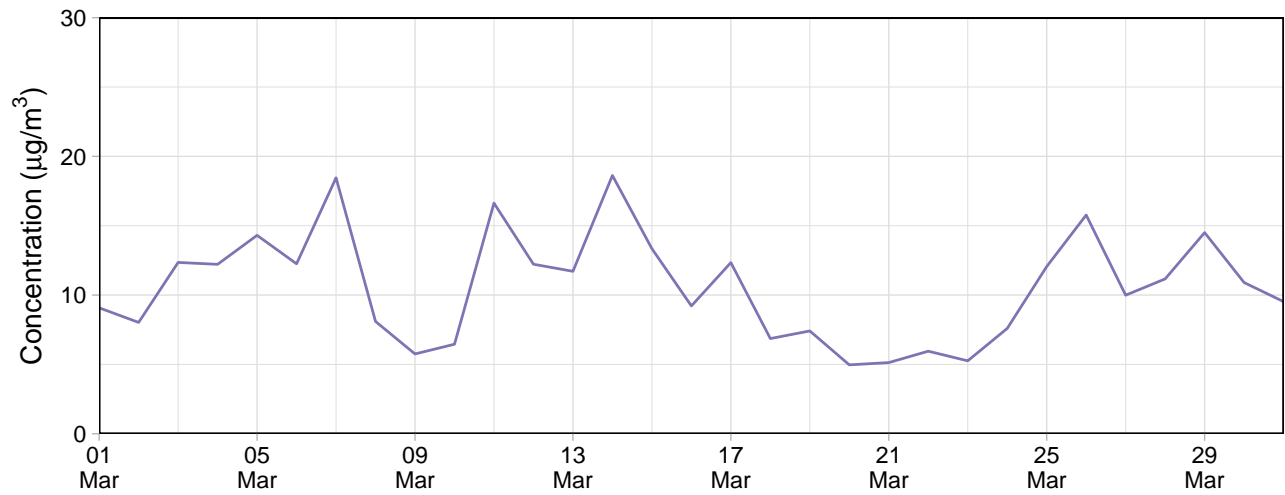


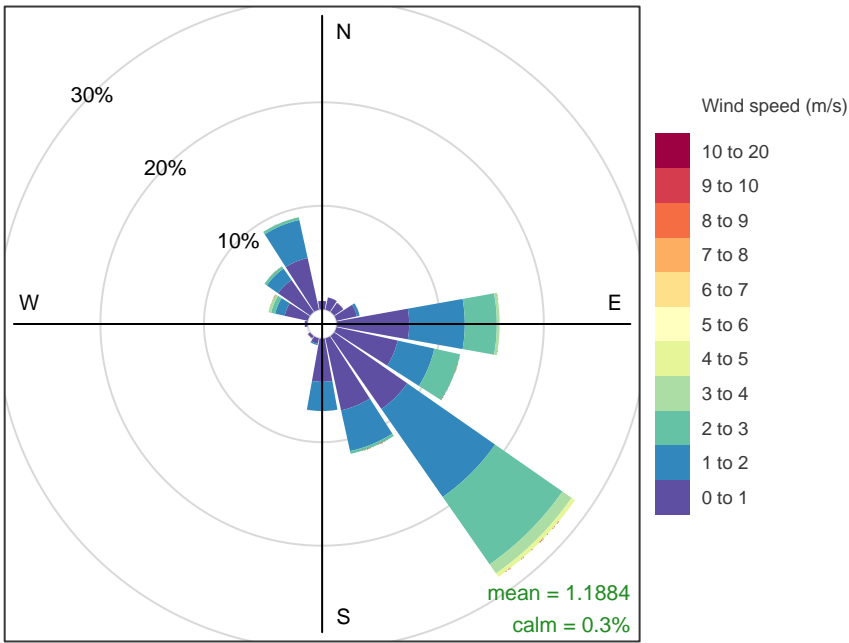
Eastern Grounds

Eastern Grounds – 24-hour average PM₁₀

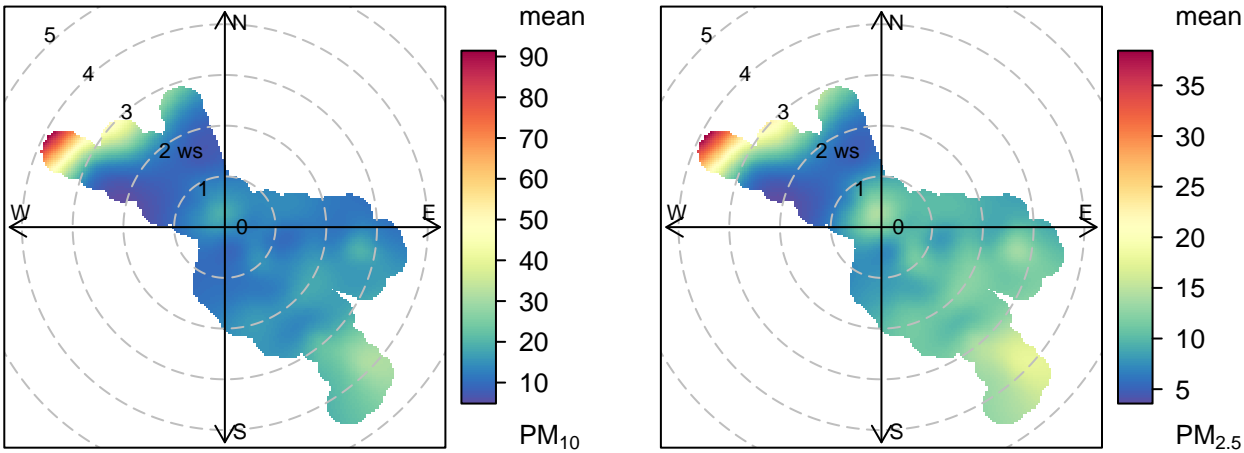


Eastern Grounds – 24-hour average PM_{2.5}

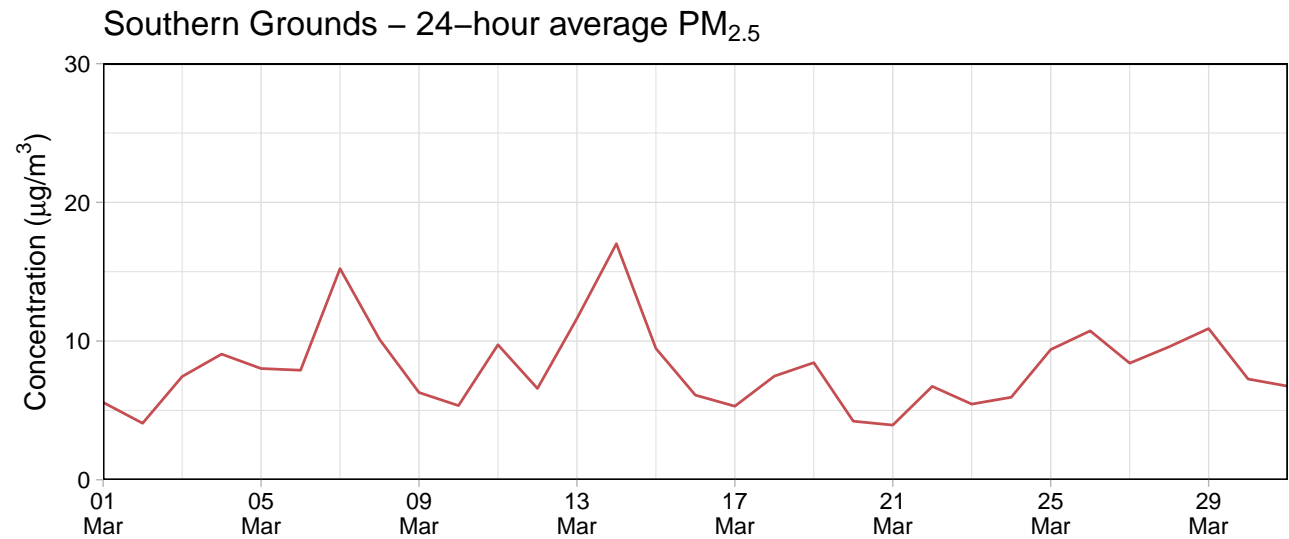
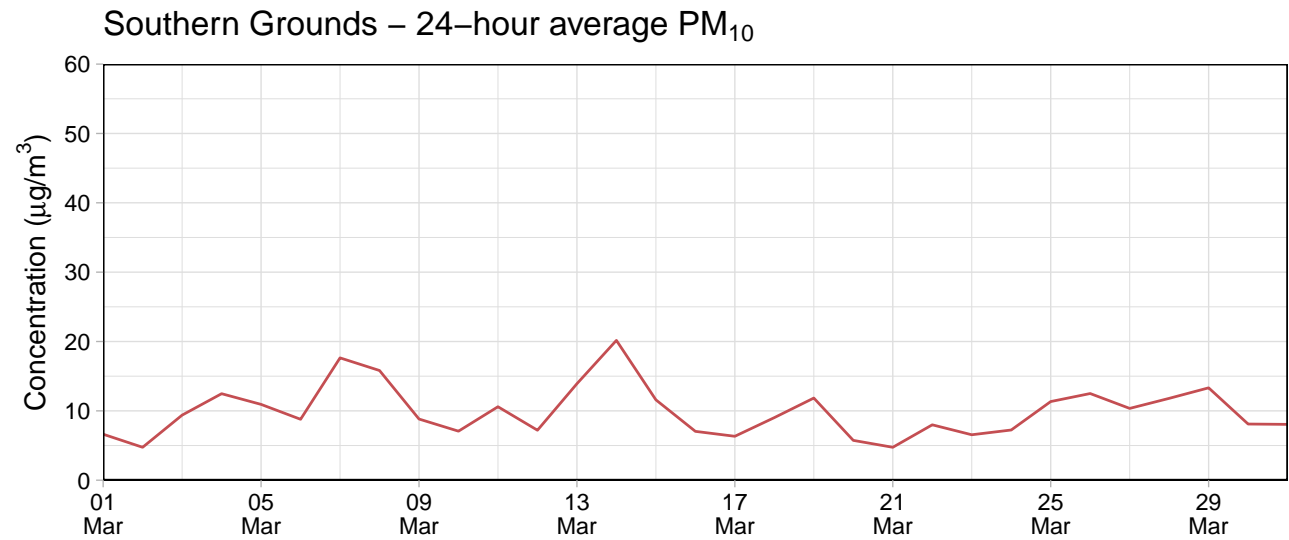


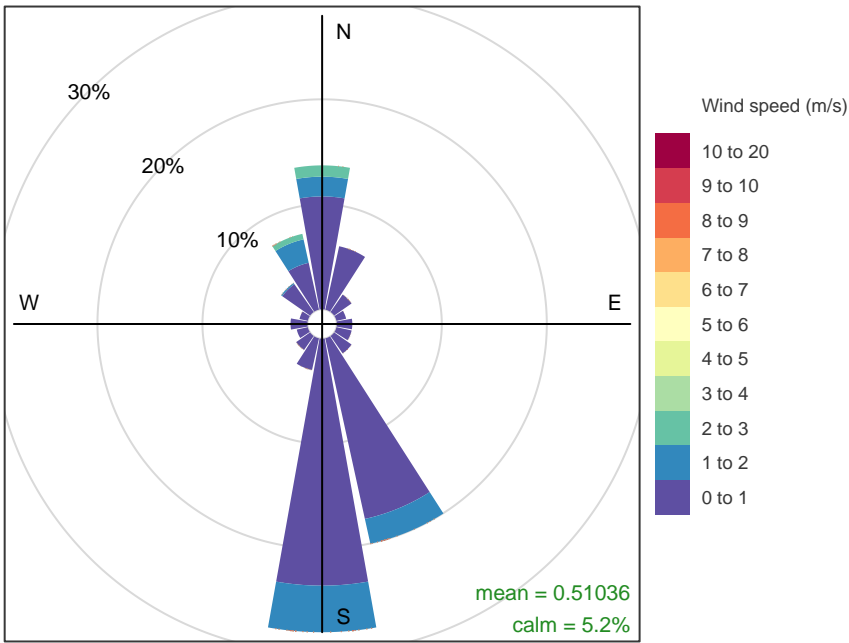


Frequency of counts by wind direction (%)

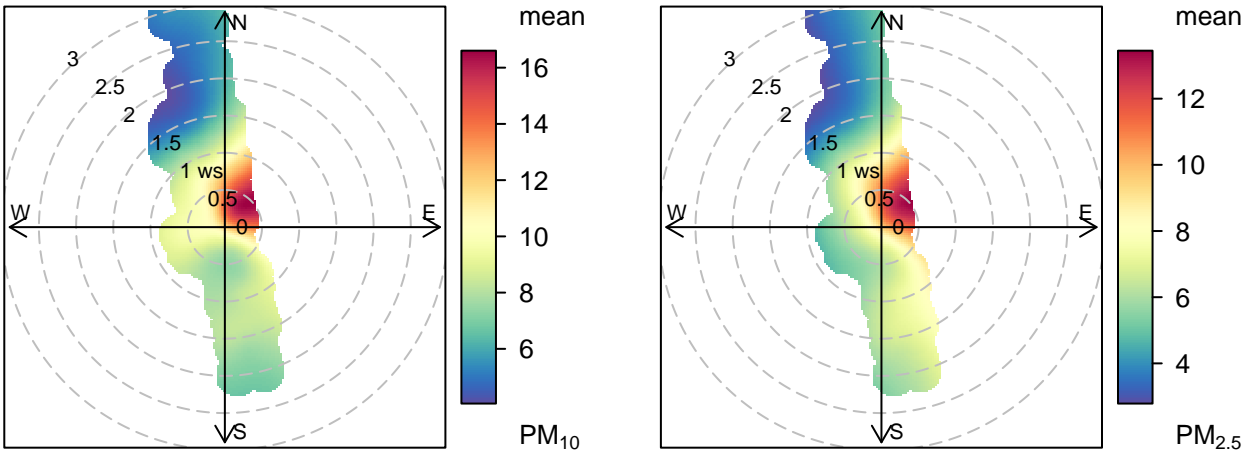


Southern Grounds

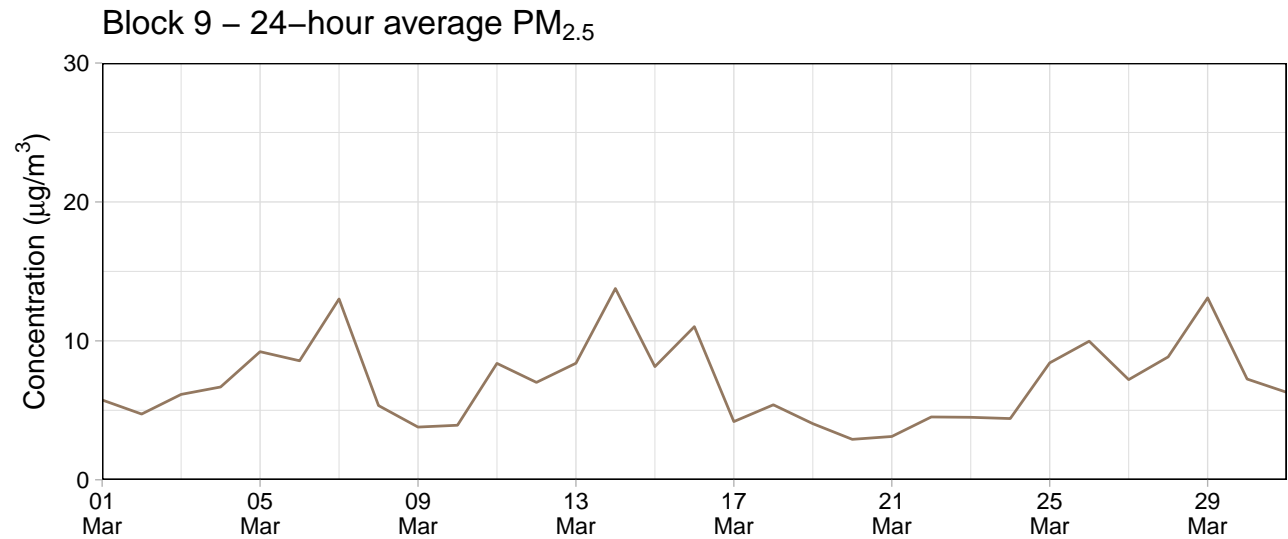
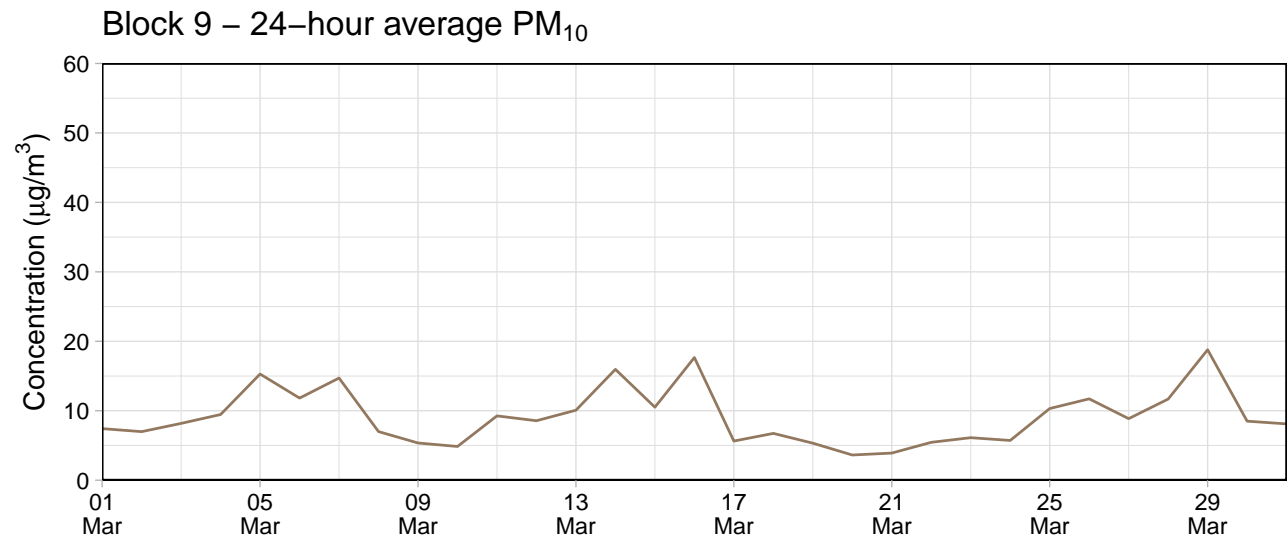


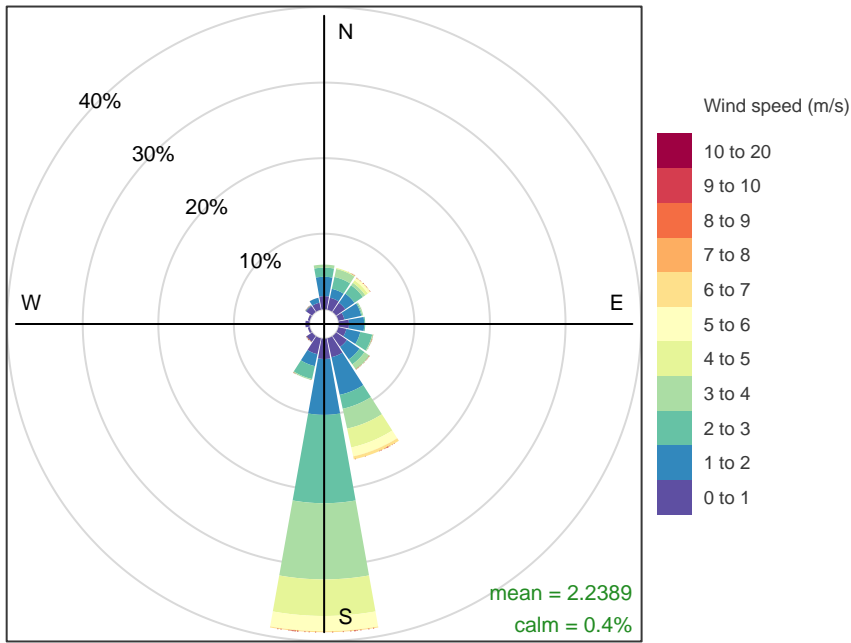


Frequency of counts by wind direction (%)

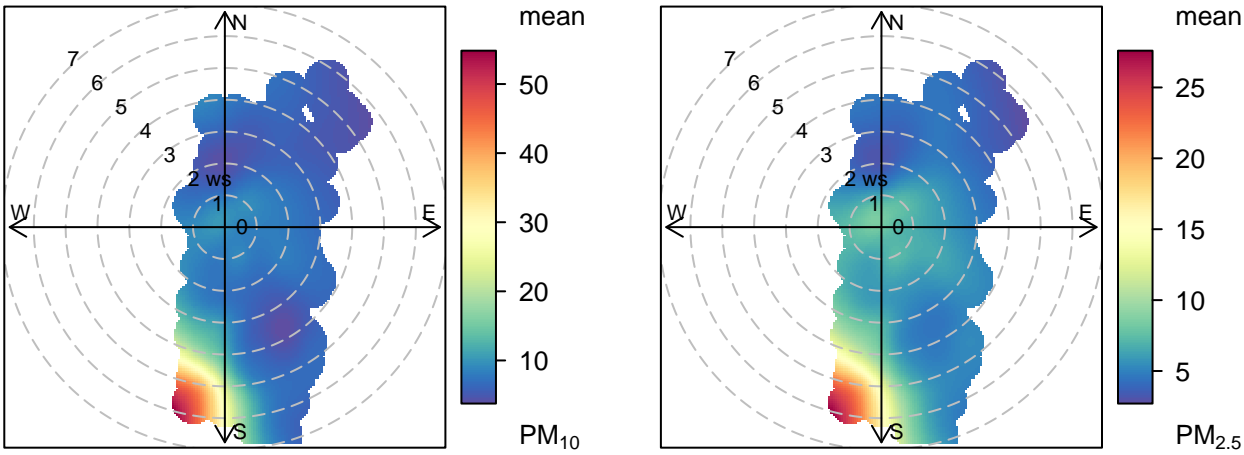


Block 9





Frequency of counts by wind direction (%)

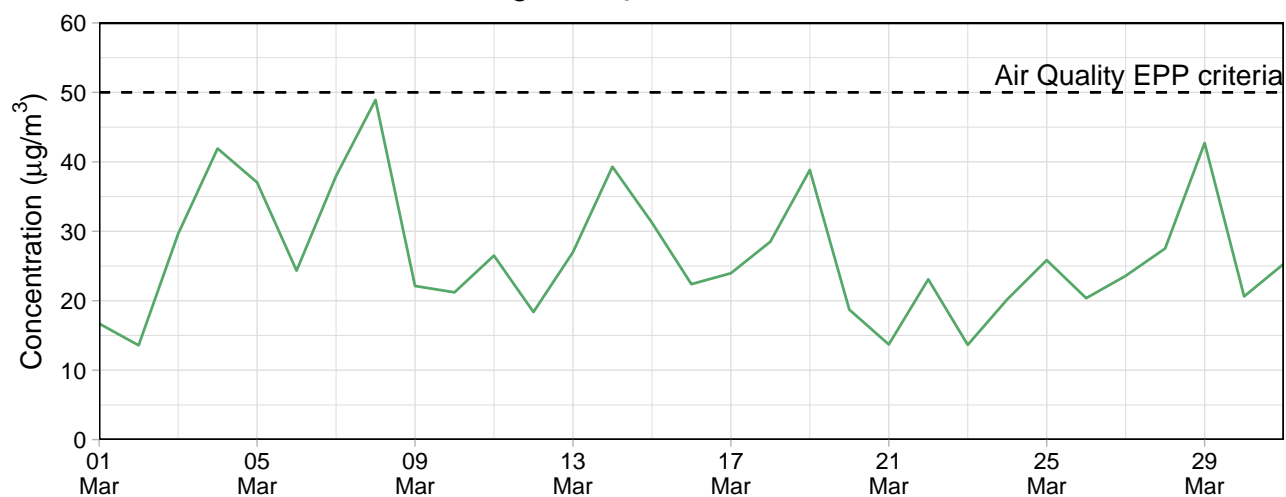
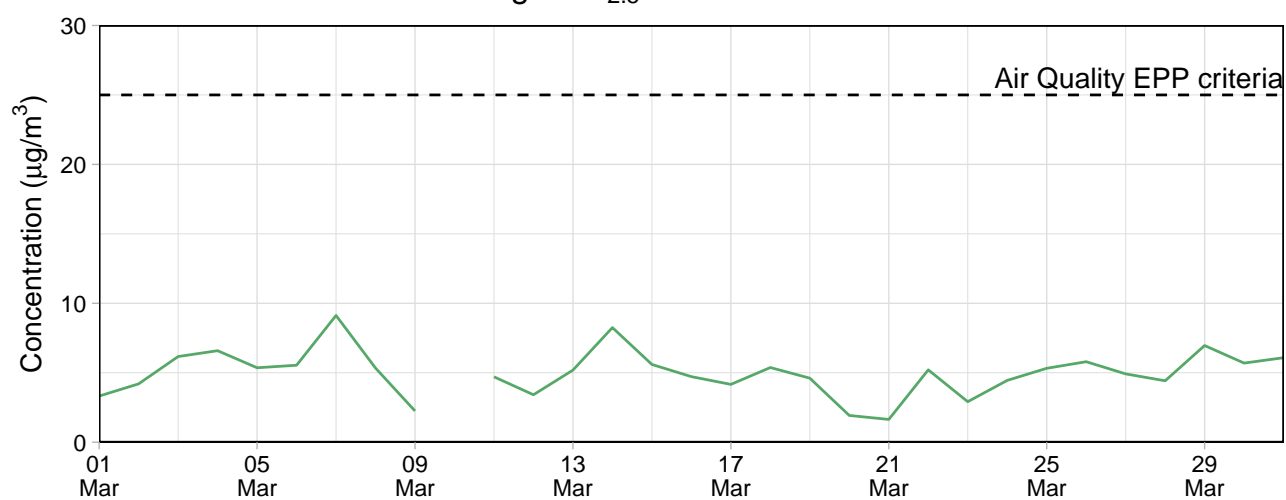


EPA Monitoring

Le Fevre 1

Table 3: Summary of 24-hour average data collected at EPA monitors ($\mu\text{g}/\text{m}^3$)

Site	PM ₁₀				PM _{2.5}			
	Min	Avg	Max	Capture (%)	Min	Avg	Max	Capture (%)
Le Fevre 1	13.6	26.6	48.9	100	-0.2	4.8	9.1	100

Le Fevre 1 – 24-hour average PM₁₀Le Fevre 1 – 24-hour average PM_{2.5}

Ground Level Particulate Notification Report - 02 February, 2025

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 Walton Street BAM monitoring sites during 02 February, 2025 is shown in [Table 1](#) below. The data indicates that:

- The 24-hour average PM₁₀ concentration measured at Community Park BAM of 55.7 µg/m³ exceeded the EPP Air criterion of 50 µg/m³
- The 24-hour average PM_{2.5} concentration measured at Community Park BAM of 39.6 µg/m³ exceeded the EPP Air criterion of 25 µg/m³
- The 24-hour average PM₁₀ concentration measured at Walton Street of 54.8 µg/m³ exceeded the EPP Air criterion of 50 µg/m³
- The 24-hour average PM_{2.5} concentration measured at Walton Street of 36.6 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 BAM	PM ₁₀	55.7	50
	PM _{2.5}	39.6	25
Walton Street	PM ₁₀	54.8	50
	PM _{2.5}	36.6	25

Smoke and dust from bush fires burning in the Grampians and areas in western Victoria 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 Walton Street monitors exceeding the relevant EPP Air criterion.

The increase in particulate levels are also reflected in monitoring data from EPA monitors located in metropolitan Adelaide and Regional areas in SA.

Community Monitoring

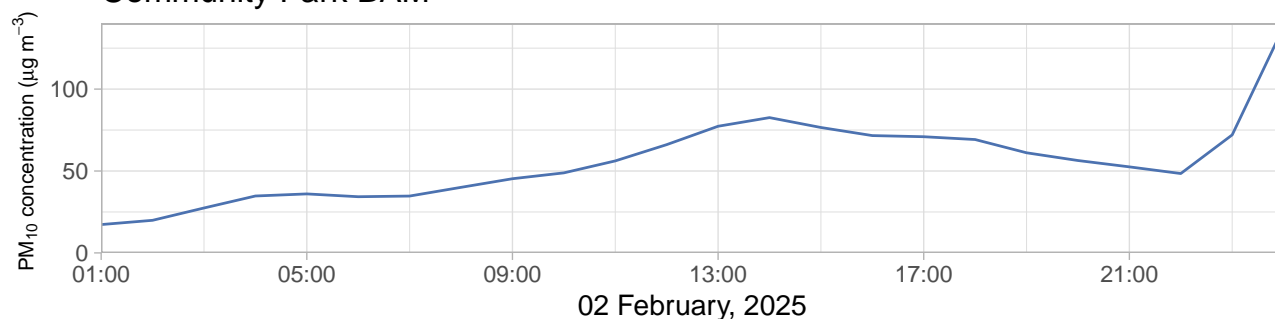
Monitoring data collected at the community monitoring sites is presented in this section.

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.

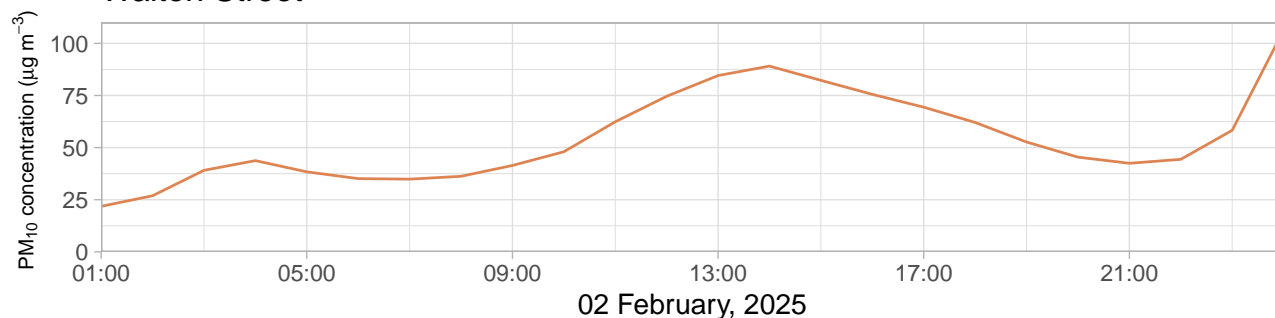
Monitoring Location	Direction	PM ₁₀ proportion (%)	PM _{2.5} proportion (%)
Community Park BAM	From direction of ABC (WD < 180)	45	46
Community Park BAM	From other direction (WD > 180)	55	54
Walton Street	From direction of ABC (WD < 180)	27	25
Walton Street	From other direction (WD > 180)	73	75

The figures below show the time series of 1-hour average measurements throughout 02 February, 2025

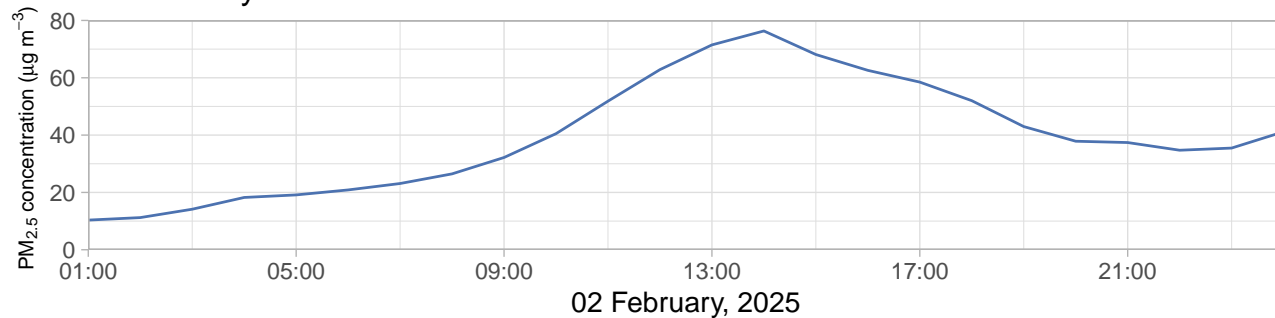
Community Park BAM

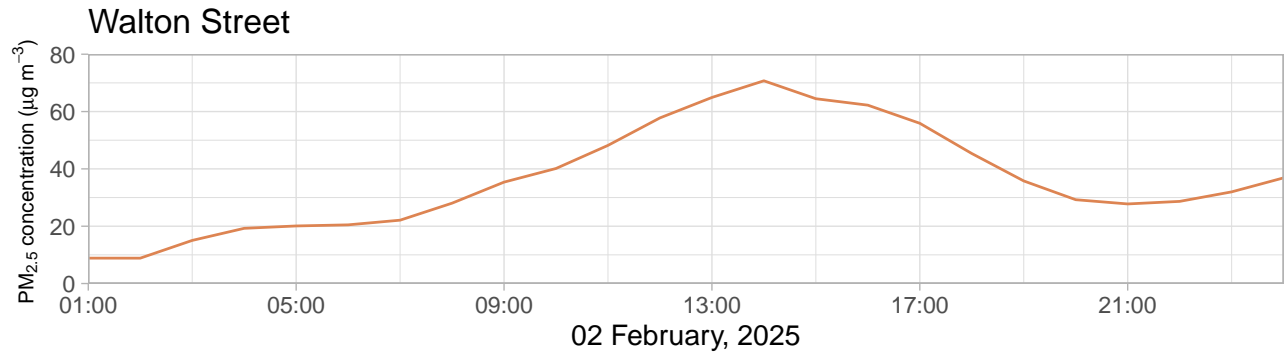


Walton Street



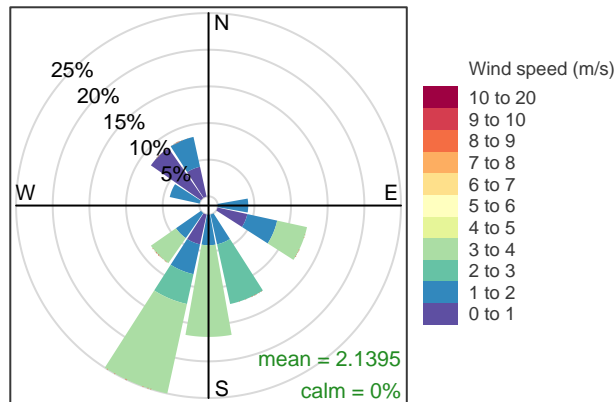
Community Park BAM





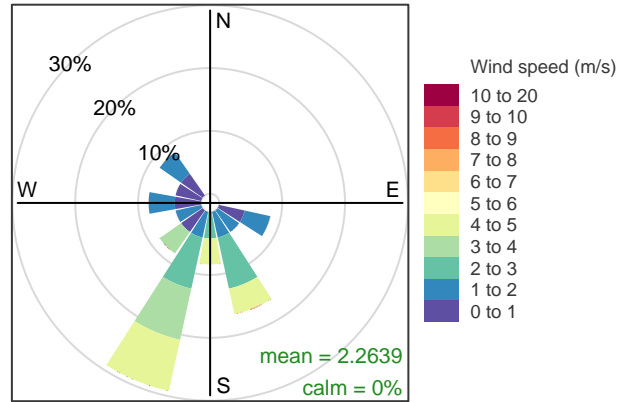
The figures below show wind roses summarising the period 02 February, 2025.

Community Park BAM



Frequency of counts by wind direction (%)

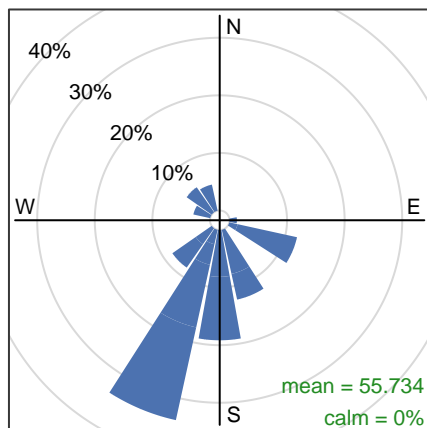
Walton Street



Frequency of counts by wind direction (%)

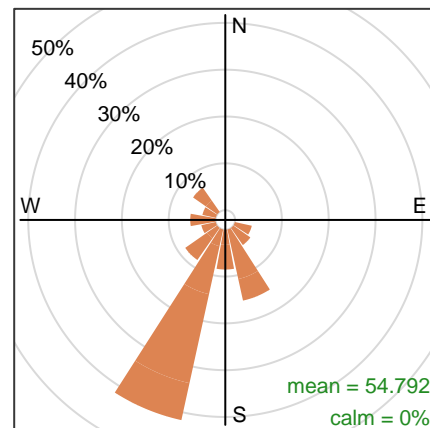
The figures below show dust roses summarising the period 02 February, 2025

Community Park BAM – PM₁₀



Proportion contribution to the mean (%)

Walton Street – PM₁₀



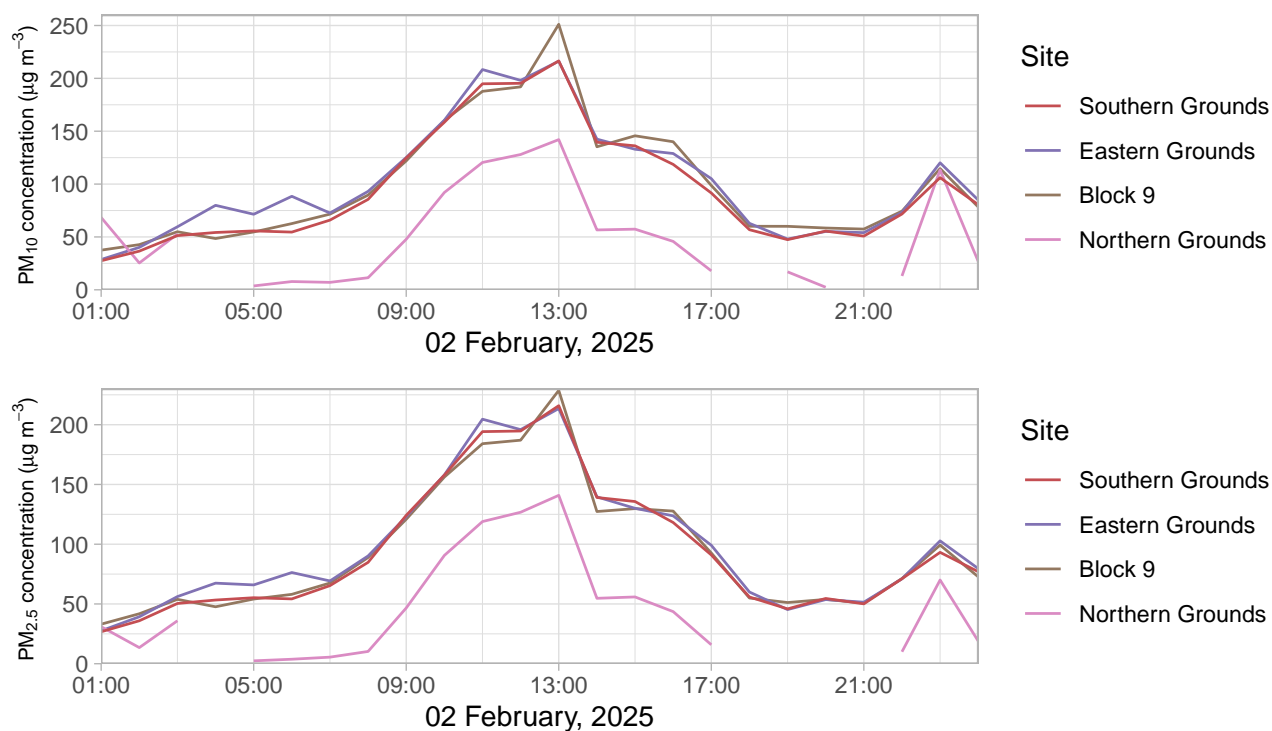
Proportion contribution to the mean (%)

Onsite Monitoring

Monitoring data collected at ABC's onsite monitors is presented in this section. The table below shows the 24-hour average concentrations measured at the onsite monitors.

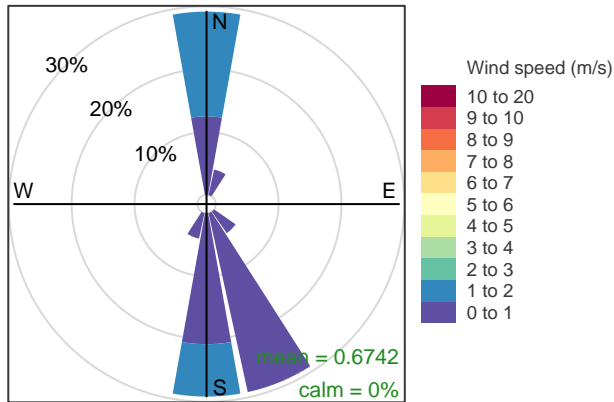
Monitoring Location	PM ₁₀ ($\mu\text{g}/\text{m}^3$)	PM _{2.5} ($\mu\text{g}/\text{m}^3$)
Southern Grounds	95	94
Eastern Grounds	102	98
Block 9	100	94
Northern Grounds	43	36

The figure below shows the time series of 1-hour average measurements throughout 02 February, 2025 for each onsite monitor.



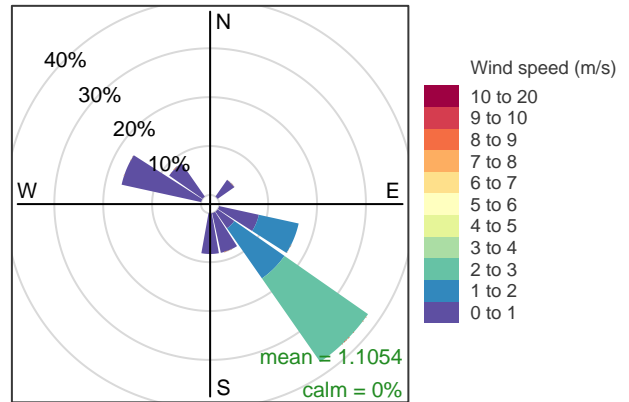
The figures below show wind and dust roses summarising the period 02 February, 2025 for each onsite monitor.

Southern Grounds



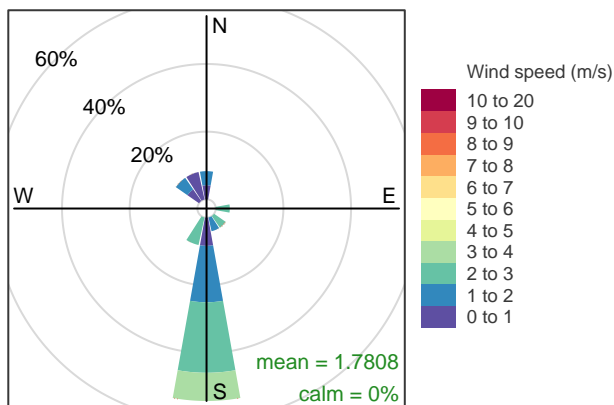
Frequency of counts by wind direction (%)

Eastern Grounds



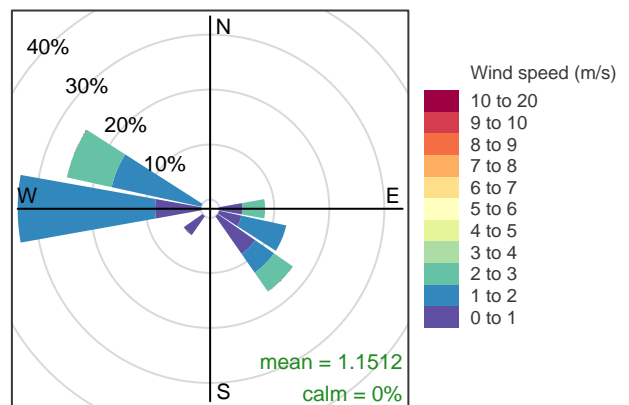
Frequency of counts by wind direction (%)

Block 9



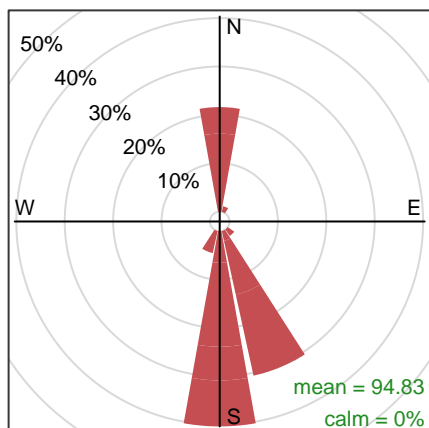
Frequency of counts by wind direction (%)

Northern Grounds



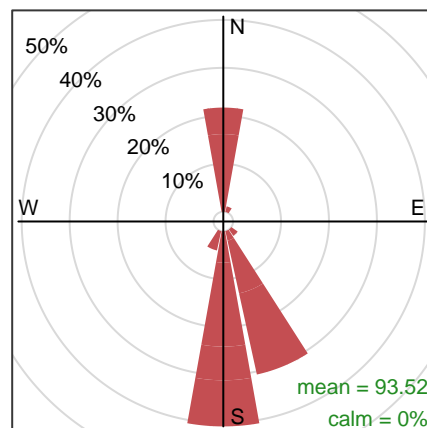
Frequency of counts by wind direction (%)

Southern Grounds – PM₁₀



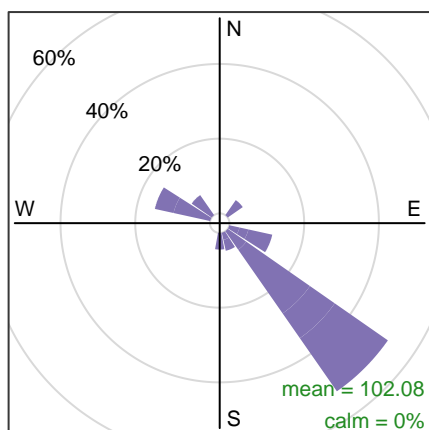
Proportion contribution to the mean (%)

Southern Grounds – PM_{2.5}



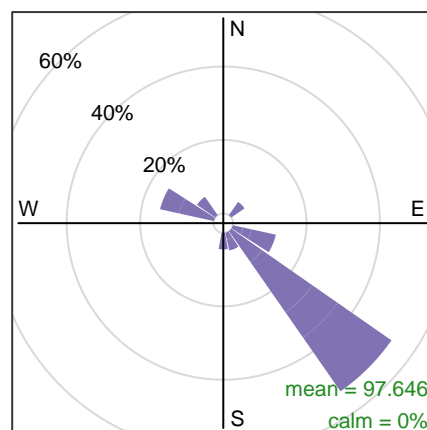
Proportion contribution to the mean (%)

Eastern Grounds – PM₁₀



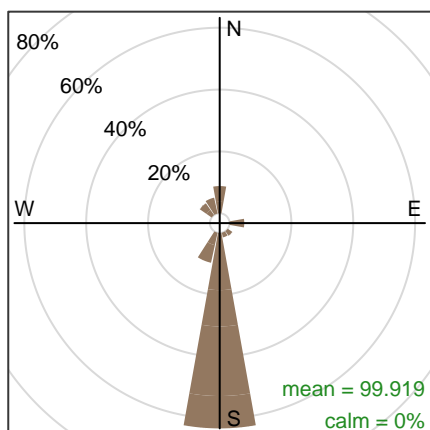
Proportion contribution to the mean (%)

Eastern Grounds – PM_{2.5}



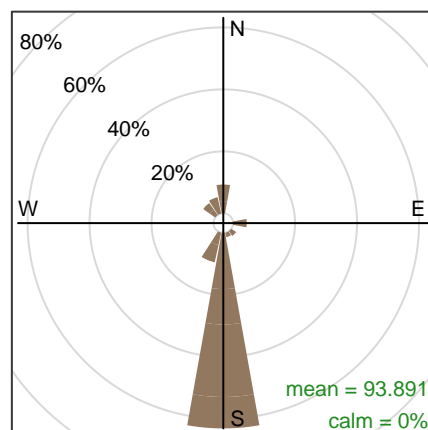
Proportion contribution to the mean (%)

Block 9 – PM₁₀



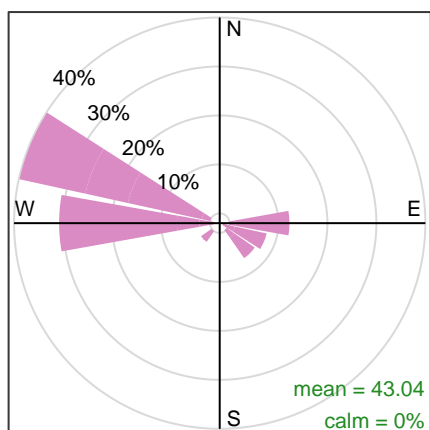
Proportion contribution to the mean (%)

Block 9 – PM_{2.5}



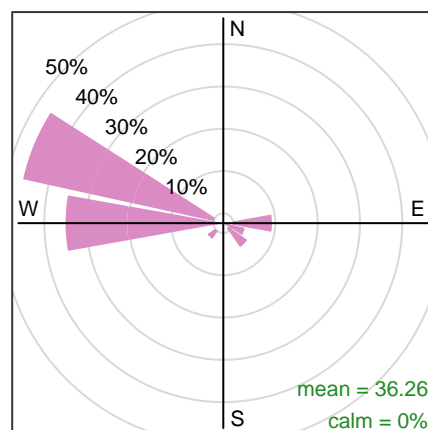
Proportion contribution to the mean (%)

Northern Grounds – PM₁₀



Proportion contribution to the mean (%)

Northern Grounds – PM_{2.5}



Proportion contribution to the mean (%)

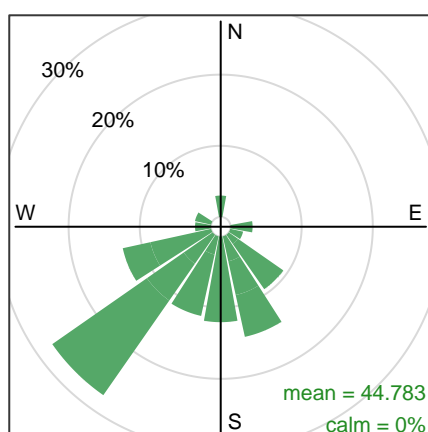
EPA Monitoring

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	0.002	42	25
Christies	0.001	79	-
Elizabeth	0.001	57	29
Le Fevre 1		45	29
Le Fevre 2	0.004	45	30
Port Pirie Oliver St		52	-
Whyalla Schulz Reserve		45	-
Whyalla Walls St		42	-

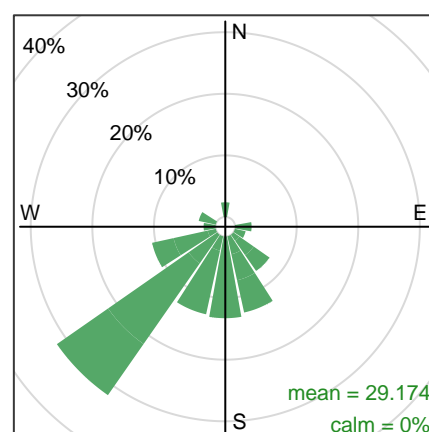
The dust roses below show the distribution of PM₁₀ and PM_{2.5} measured at Le Fevre 1 for the period 02 February, 2025 .

Le Fevre 1 – PM₁₀



Proportion contribution to the mean (%)

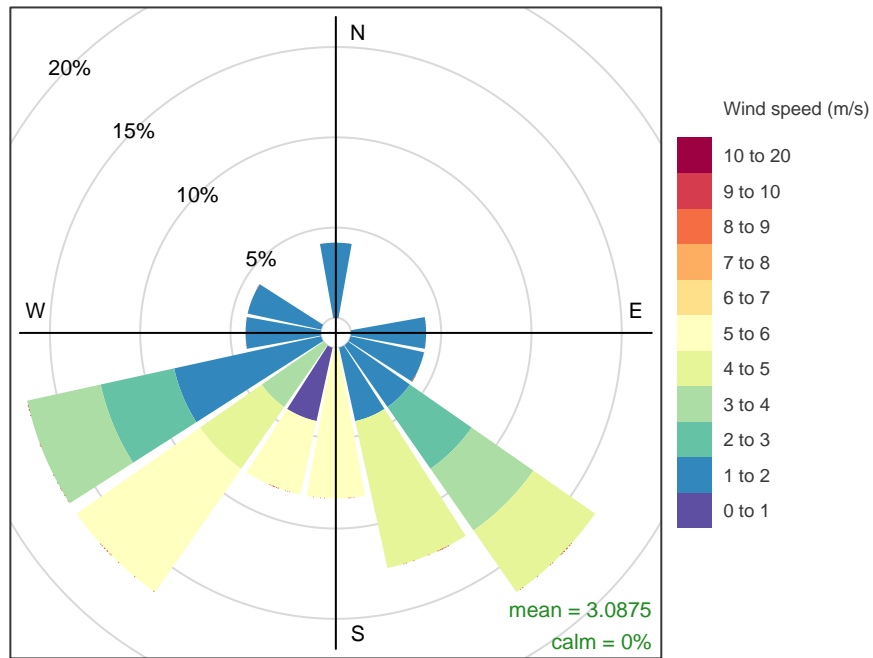
Le Fevre 1 – PM_{2.5}



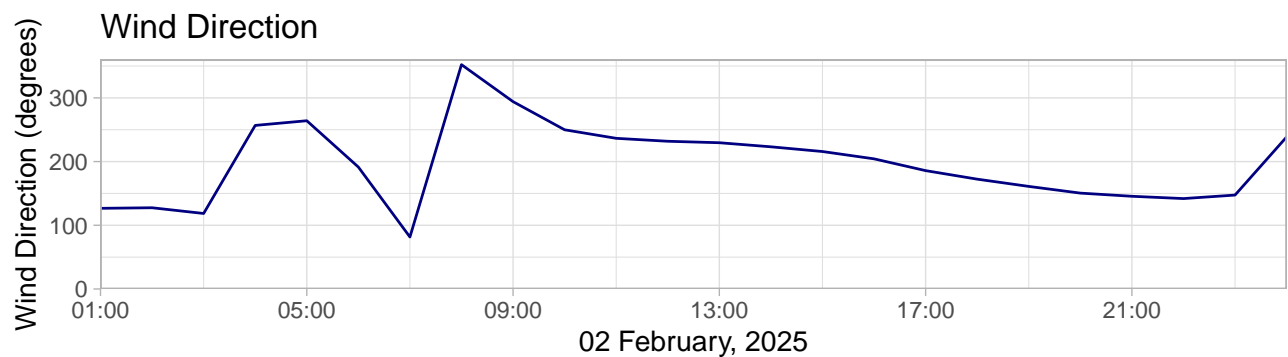
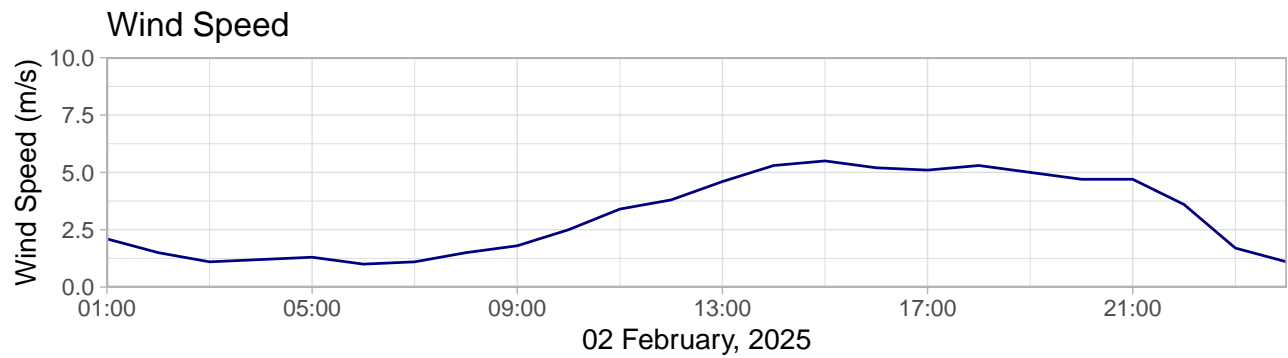
Proportion contribution to the mean (%)

Meteorological Monitoring

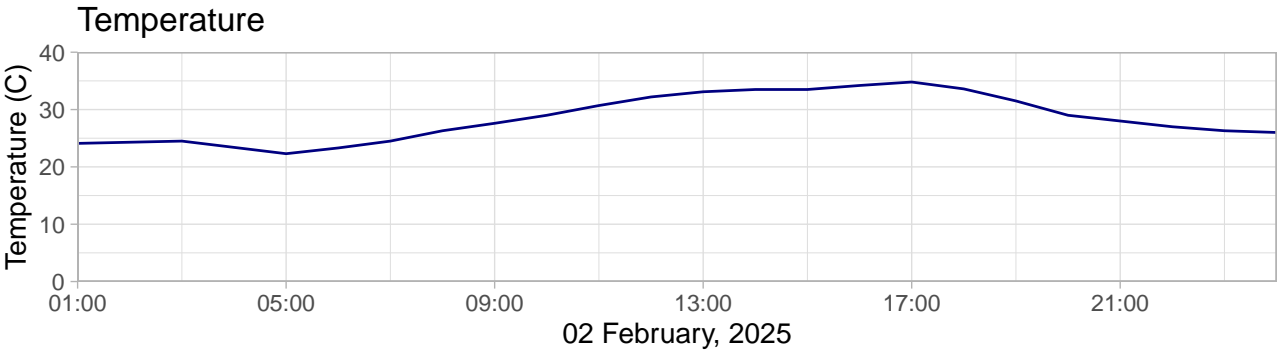
The following figures show meteorological parameters measured¹ throughout the day.



Frequency of counts by wind direction (%)



¹Powered by [Meteomatics](#)



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.

Ground Level Particulate Notification Report - 03 February, 2025

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 Walton Street BAM monitoring sites during 03 February, 2025 is shown in [Table 1](#) below. The data indicates that:

- The 24-hour average PM₁₀ concentration measured at Community Park BAM of 61.3 µg/m³ exceeded the EPP Air criterion of 50 µg/m³
- The 24-hour average PM₁₀ concentration measured at Walton Street of 51.9 µg/m³ exceeded the EPP Air criterion of 50 µg/m³

Table 1: Monitoring Summary

Monitoring Location	Pollutant	24-hour average (µg/m ³)	EPP Air Criterion (µg/m ³)
Community Park BAM	PM ₁₀	61.3	50
	PM _{2.5}	19.6	25
Walton Street	PM ₁₀	51.9	50
	PM _{2.5}	17.6	25

Easterly winds have blown smoke and dust from bush fires burning in the Grampians and areas in western Victoria contributing to elevated levels of particulate in the Adelaide metropolitan area. Adbri Cement's community monitors reflect these elevated particulate levels with measured 24 hr averages for PM₁₀ on the Community Park and Walton Street monitors exceeding the relevant Environment Protection Policy (Air Quality), EPP Air criterion.

The increase in particulate levels are also reflected in monitoring data from EPA monitors located in metropolitan Adelaide and Regional areas in SA.

Community Monitoring

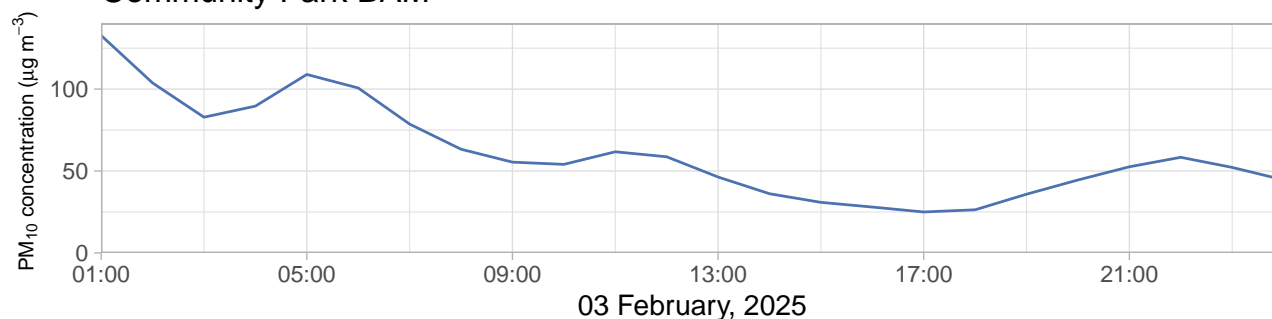
Monitoring data collected at the community monitoring sites is presented in this section.

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.

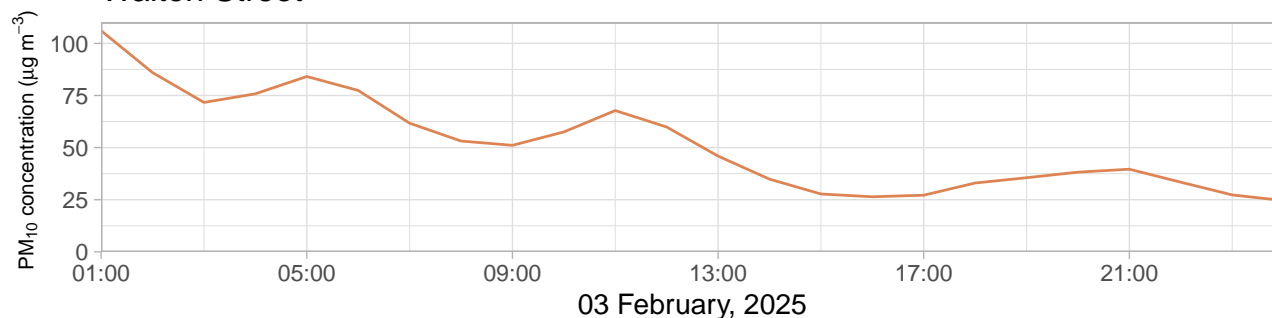
Monitoring Location	Direction	PM ₁₀ proportion (%)	PM _{2.5} proportion (%)
Community Park BAM	From direction of ABC (WD < 180)	67	78
Community Park BAM	From other direction (WD > 180)	33	22
Walton Street	From direction of ABC (WD < 180)	63	75
Walton Street	From other direction (WD > 180)	37	25

The figures below show the time series of 1-hour average measurements throughout 03 February, 2025

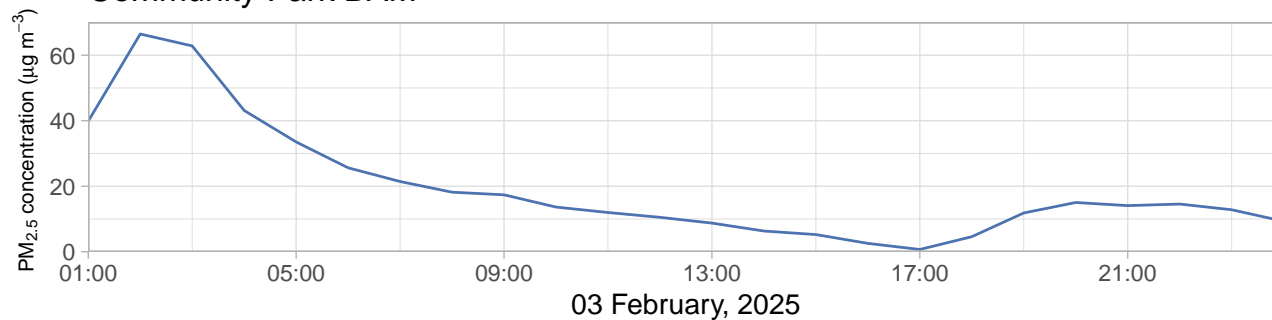
Community Park BAM

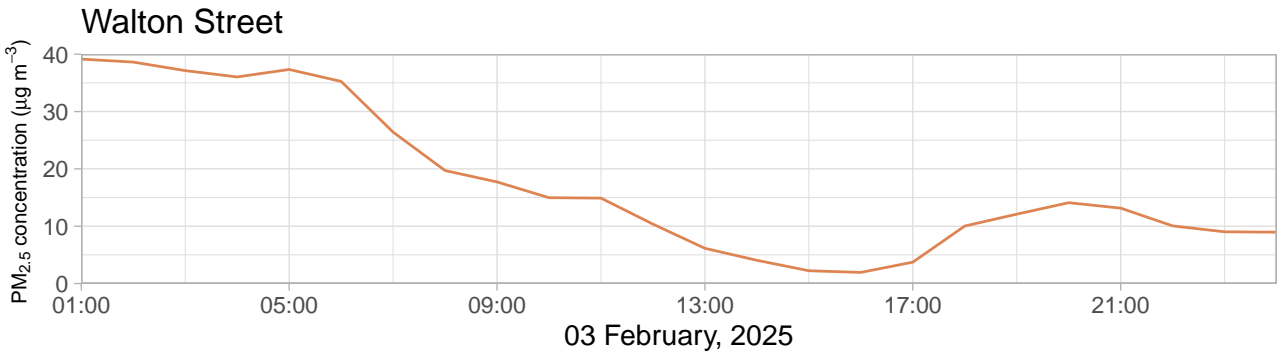


Walton Street



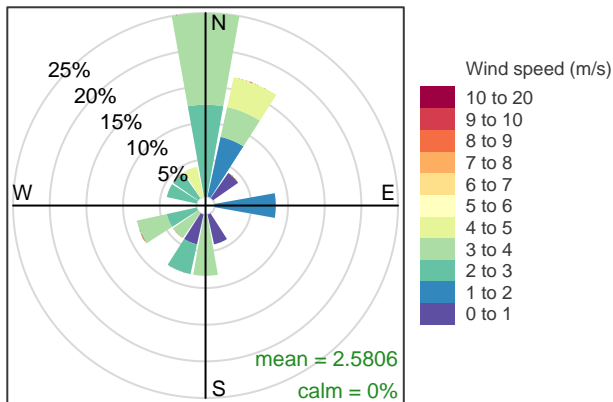
Community Park BAM





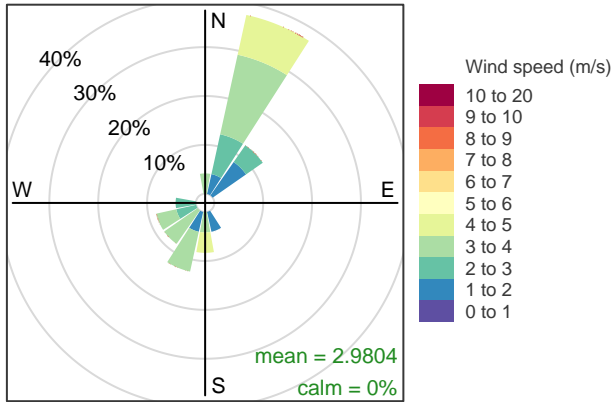
The figures below show wind roses summarising the period 03 February, 2025.

Community Park BAM



Frequency of counts by wind direction (%)

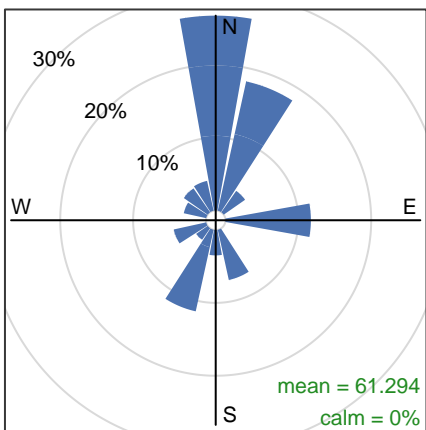
Walton Street



Frequency of counts by wind direction (%)

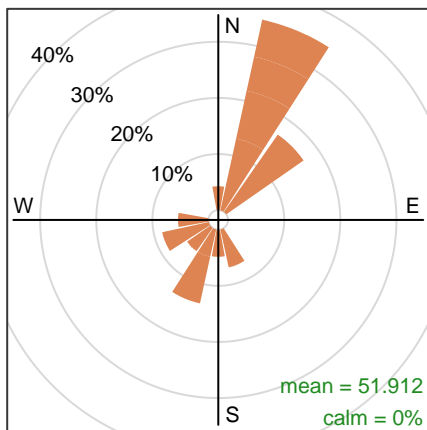
The figures below show dust roses summarising the period 03 February, 2025

Community Park BAM – PM₁₀



Proportion contribution to the mean (%)

Walton Street – PM₁₀



Proportion contribution to the mean (%)

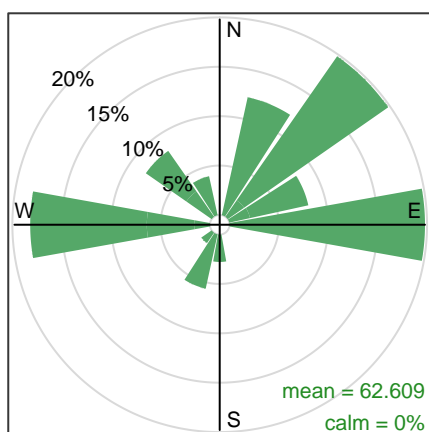
EPA Monitoring

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	0.004	35	11
Christies	0.005	48	-
Elizabeth	0.004	39	11
Le Fevre 1		61	11
Le Fevre 2	0.007	45	12
Port Pirie Oliver St		65	-
Whyalla Schulz Reserve		51	-
Whyalla Walls St		67	-

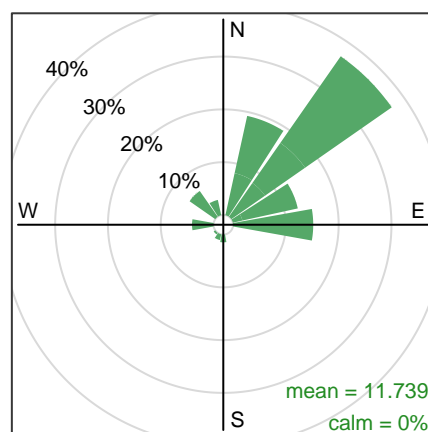
The dust roses below show the distribution of PM₁₀ and PM_{2.5} measured at Le Fevre 1 for the period 03 February, 2025 .

Le Fevre 1 – PM₁₀



Proportion contribution to the mean (%)

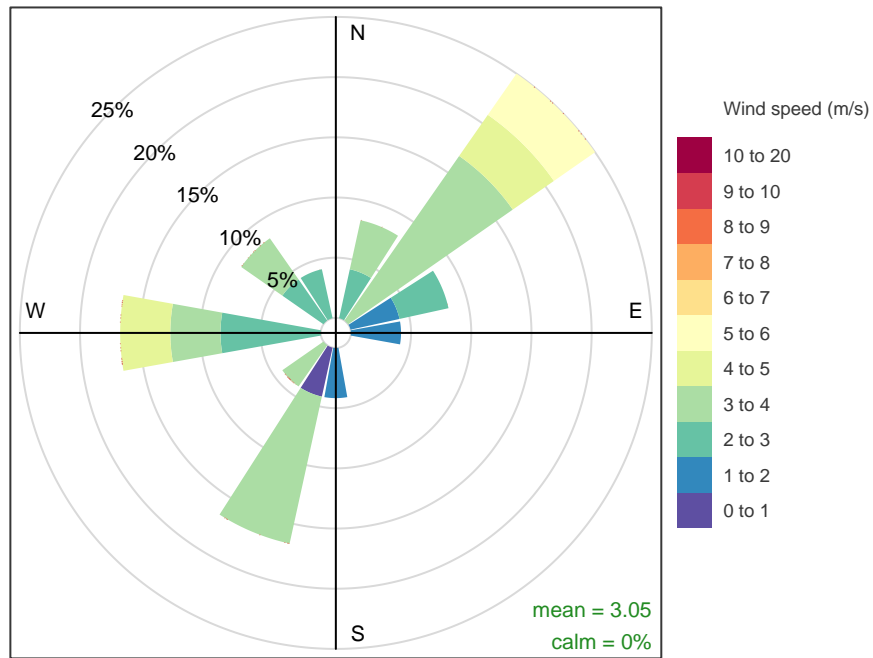
Le Fevre 1 – PM_{2.5}



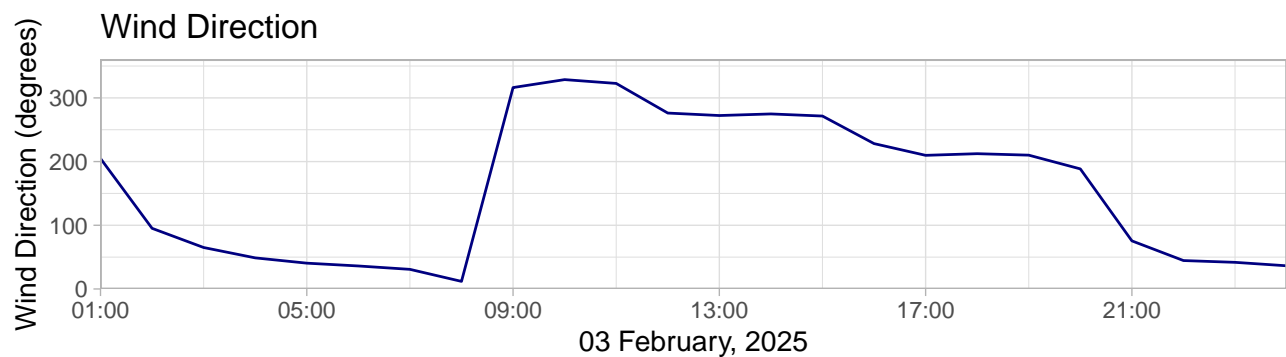
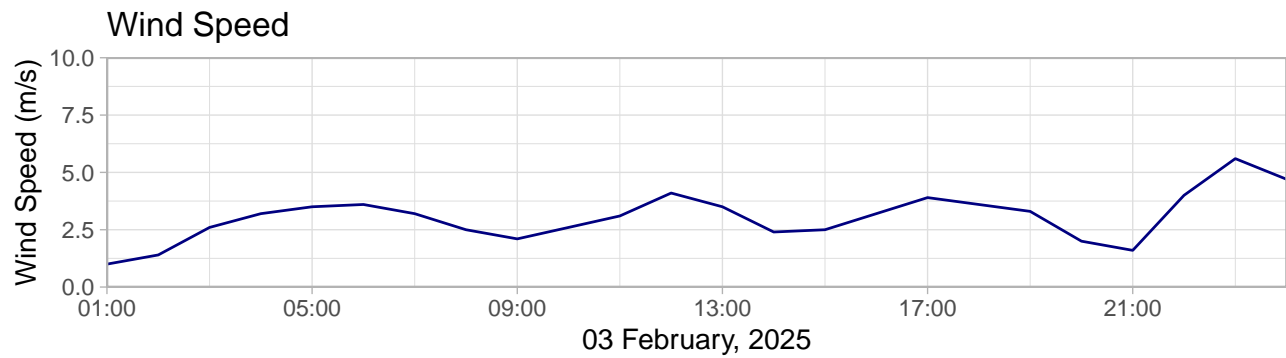
Proportion contribution to the mean (%)

Meteorological Monitoring

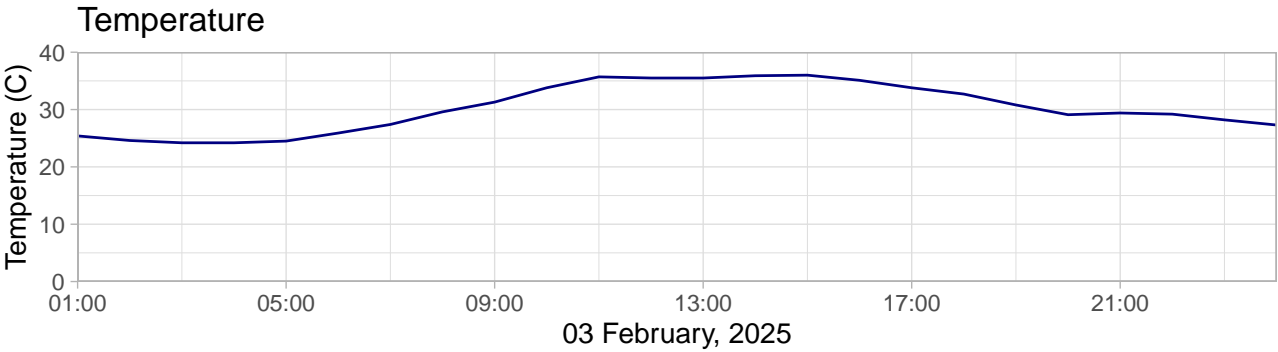
The following figures show meteorological parameters measured¹ throughout the day.



Frequency of counts by wind direction (%)



¹Powered by [Meteomatics](#)



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Ground Level Particulate Notification Report - 12 February, 2025

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 Walton Street BAM monitoring sites during 12 February, 2025 is shown in [Table 1](#) below. The data indicates that:

- The 24-hour average PM₁₀ concentration measured at Community Park BAM of 52.3 µg/m³ exceeded the EPP Air criterion of 50 µg/m³

Table 1: Monitoring Summary

Monitoring Location	Pollutant	24-hour average (µg/m ³)	EPP Air Criterion (µg/m ³)
Community Park BAM	PM ₁₀	52.3	50
	PM _{2.5}	8.8	25
Walton Street	PM ₁₀	36.5	50
	PM _{2.5}	7.0	25

The wind direction was from the East and North East direction for about 50% of the day, blowing across the Birkenhead site towards the community to the west of the site. PM10 levels were generally elevated in the air shed, and it appears the PM10 contribution from wind blowing across Adelaide Brighton Cement site, has contributed to the exceedance of PM10 on the Community Park monitor. PM10 levels were elevated from midnight to midday, and started to drop with a change in wind direction blowing from the North West. The kiln was not operating during the high PM10 levels, and did not start up until late afternoon. Investigation of site activity has not identified a specific activity that has contributed to the increase in PM10 dust, other than stockpiles and material movements which were reduced because of the kiln being shutdown.

Community Monitoring

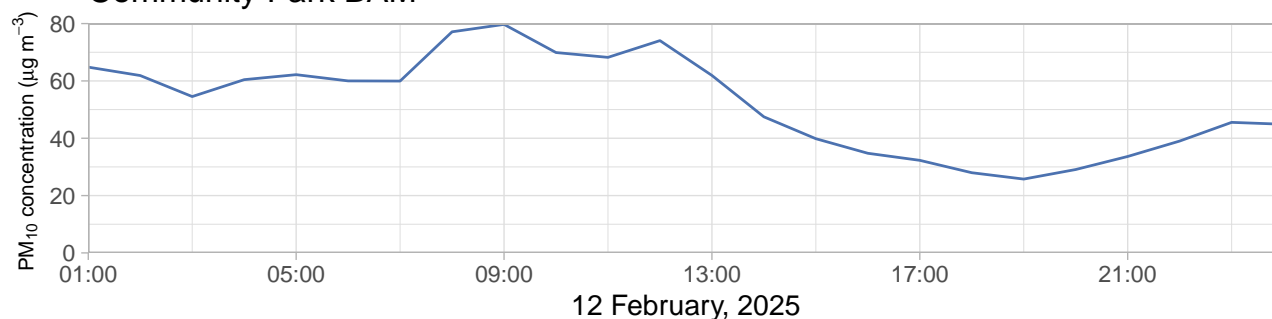
Monitoring data collected at the community monitoring sites is presented in this section.

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.

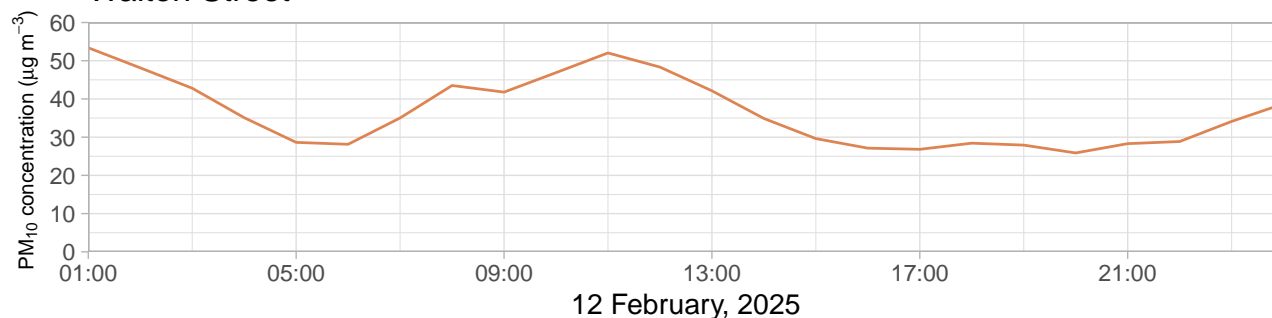
Monitoring Location	Direction	PM ₁₀ proportion (%)	PM _{2.5} proportion (%)
Community Park BAM	From direction of ABC (WD < 180)	53	60
Community Park BAM	From other direction (WD > 180)	47	40
Walton Street	From direction of ABC (WD < 180)	58	66
Walton Street	From other direction (WD > 180)	42	34

The figures below show the time series of 1-hour average measurements throughout 12 February, 2025

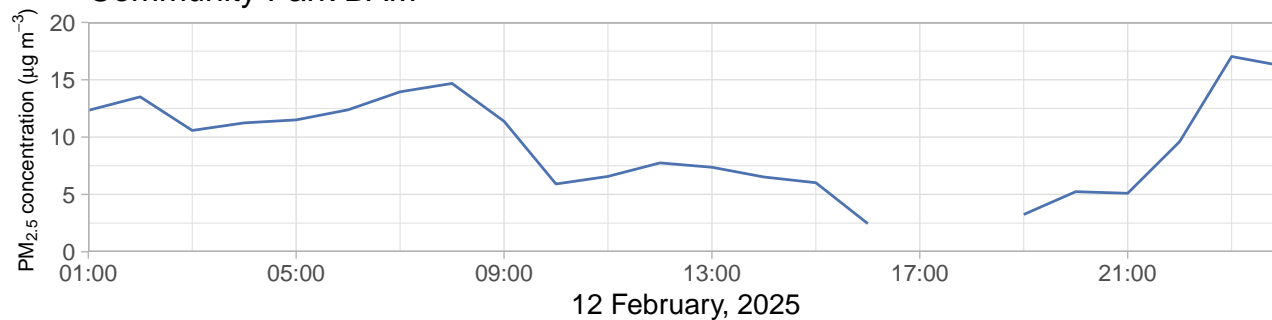
Community Park BAM

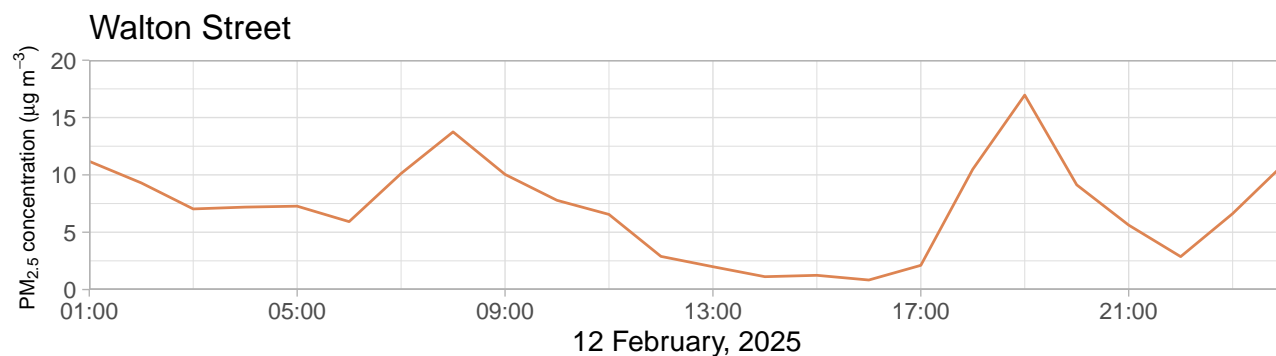


Walton Street



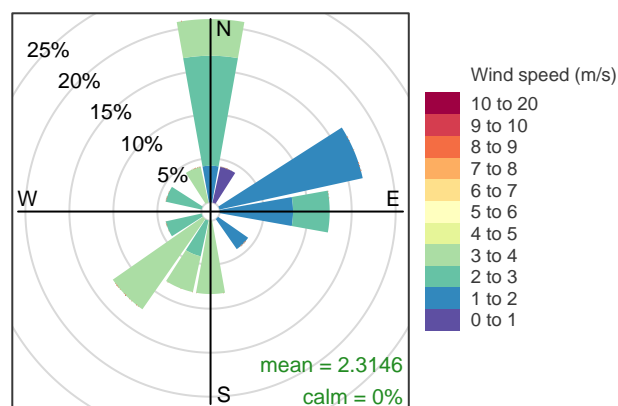
Community Park BAM





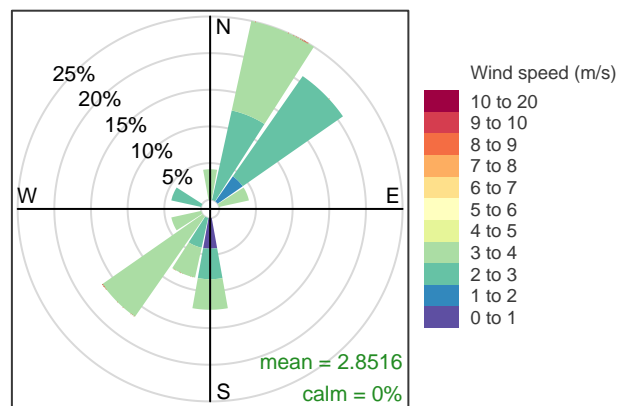
The figures below show wind roses summarising the period 12 February, 2025.

Community Park BAM



Frequency of counts by wind direction (%)

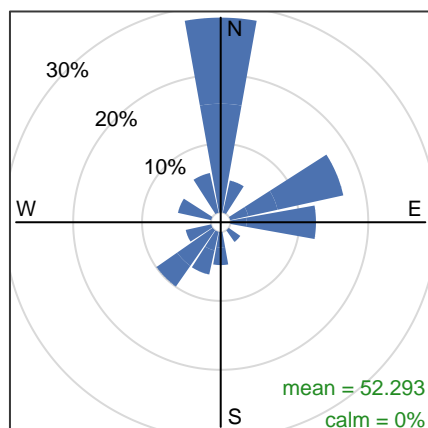
Walton Street



Frequency of counts by wind direction (%)

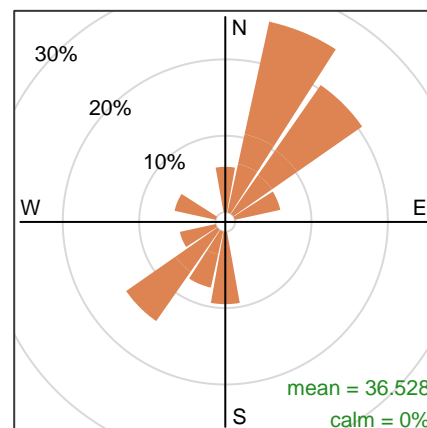
The figures below show dust roses summarising the period 12 February, 2025

Community Park BAM – PM₁₀



Proportion contribution to the mean (%)

Walton Street – PM₁₀



Proportion contribution to the mean (%)

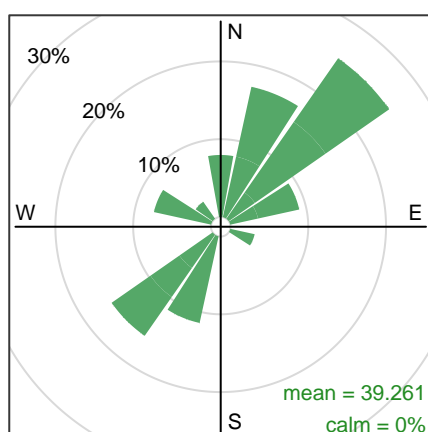
EPA Monitoring

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	0.004	17	4
Christies	0.001	33	-
Elizabeth	0.003	24	4
Le Fevre 1		39	3
Le Fevre 2	0.000	28	2
Port Pirie Oliver St		95	-
Whyalla Schulz Reserve		59	-
Whyalla Walls St		92	-

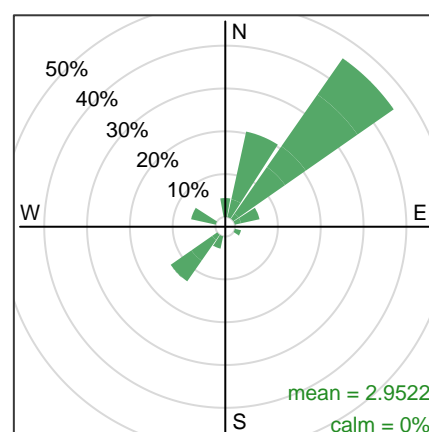
The dust roses below show the distribution of PM₁₀ and PM_{2.5} measured at Le Fevre 1 for the period 12 February, 2025 .

Le Fevre 1 – PM₁₀



Proportion contribution to the mean (%)

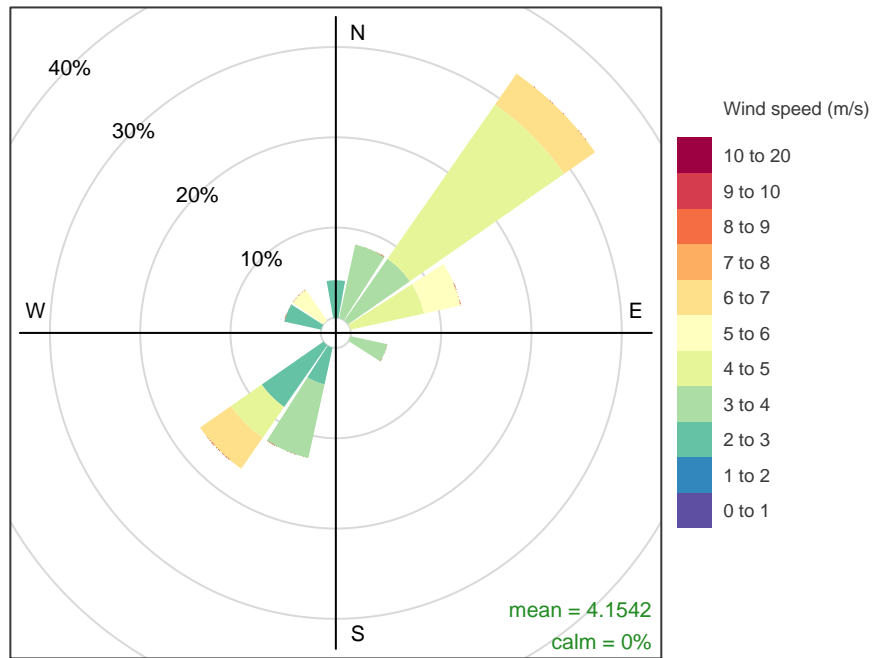
Le Fevre 1 – PM_{2.5}



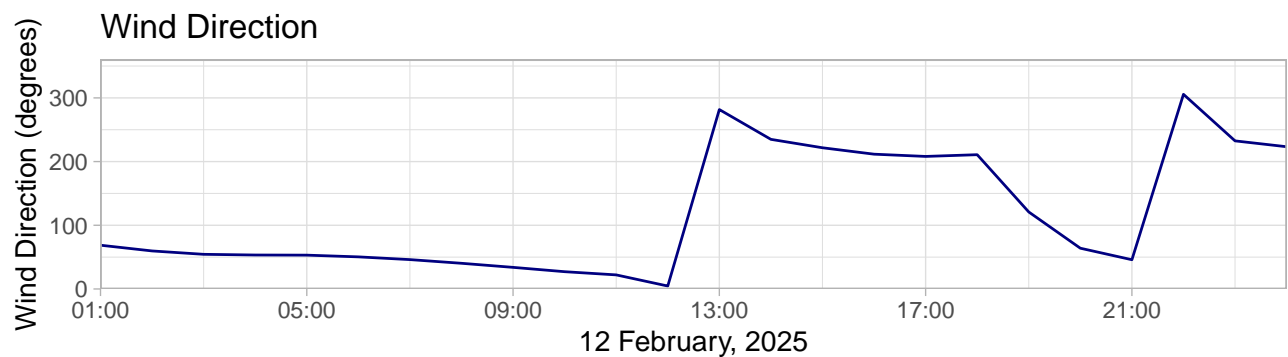
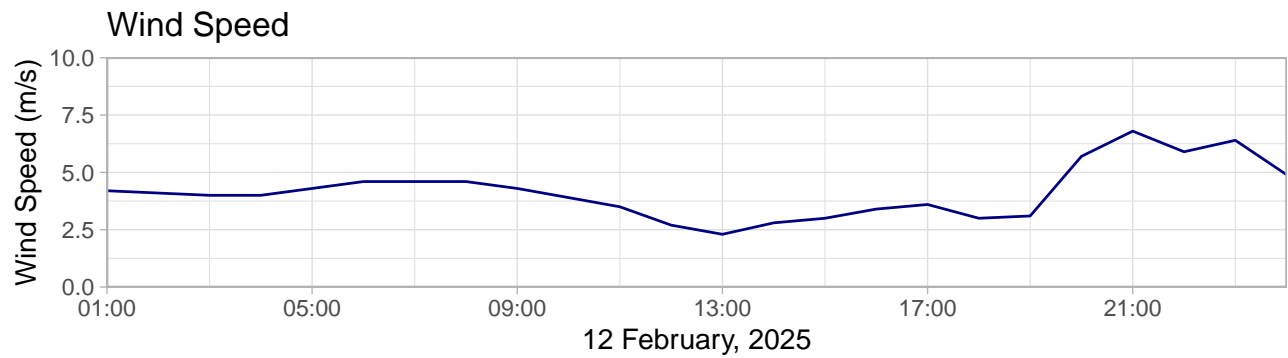
Proportion contribution to the mean (%)

Meteorological Monitoring

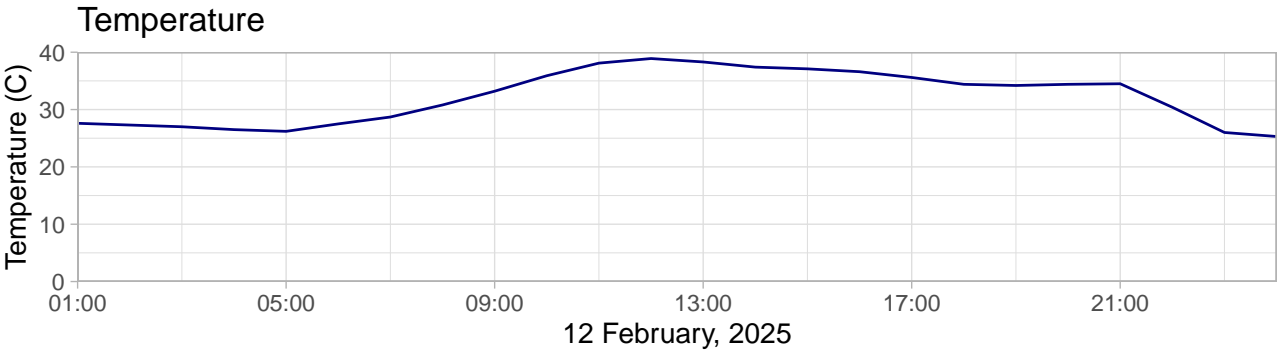
The following figures show meteorological parameters measured¹ throughout the day.



Frequency of counts by wind direction (%)



¹Powered by [Meteomatics](#)



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Ground Level Particulate Notification Report - 08 March, 2025

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 Walton Street BAM monitoring sites during 08 March, 2025 is shown in [Table 1](#) below. The data indicates that:

- The 24-hour average PM₁₀ concentration measured at Community Park BAM of 63.8 µg/m³ exceeded the EPP Air criterion of 50 µg/m³

Table 1: Monitoring Summary

Monitoring Location	Pollutant	24-hour average (µg/m ³)	EPP Air Criterion (µg/m ³)
Community Park BAM	PM ₁₀	63.8	50
	PM _{2.5}	9.8	25
Walton Street	PM ₁₀	42.2	50
	PM _{2.5}	6.4	25

The wind direction was from the East and North East direction for about 85% of the day, blowing across the Birkenhead site towards the community to the west of the site. PM10 levels were generally elevated in the air shed, and it appears the PM10 contribution from wind blowing across Adelaide Brighton Cement site, has contributed to the exceedance of PM10 on the Community Park monitor. Investigation of site activity has not identified a specific activity that has contributed to the increase in PM10 dust, other than stockpiles and material movements.

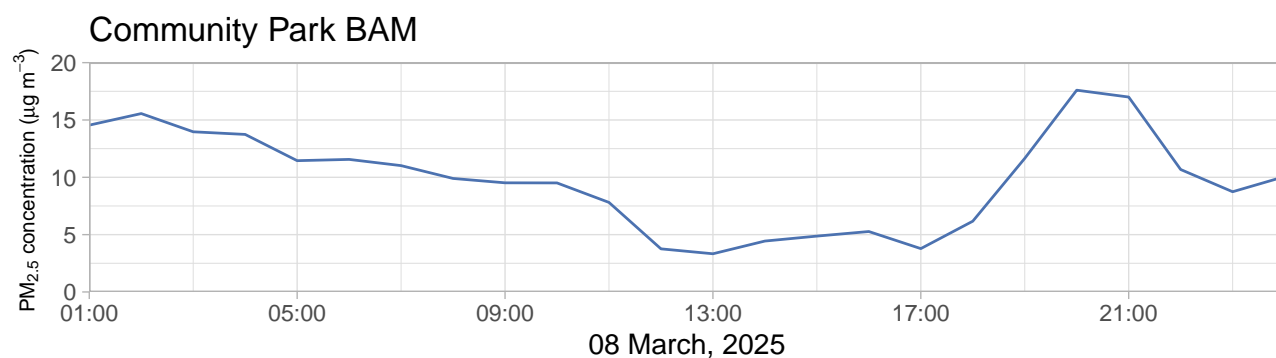
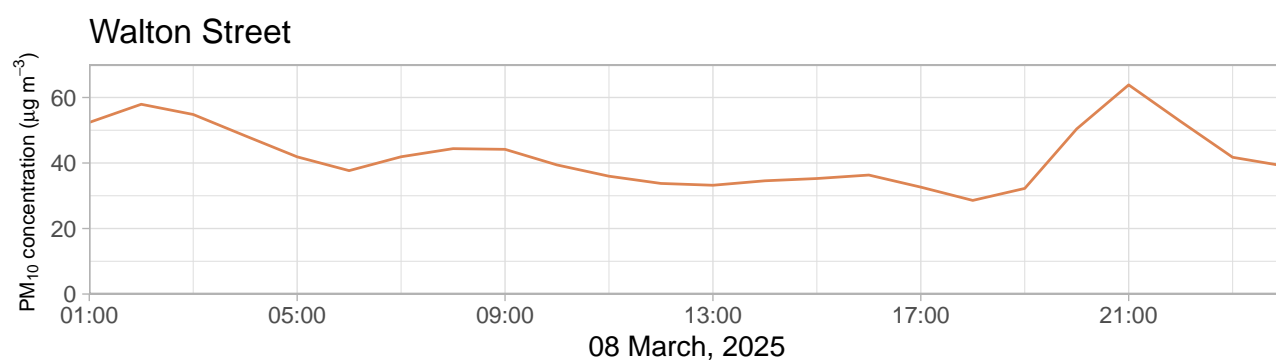
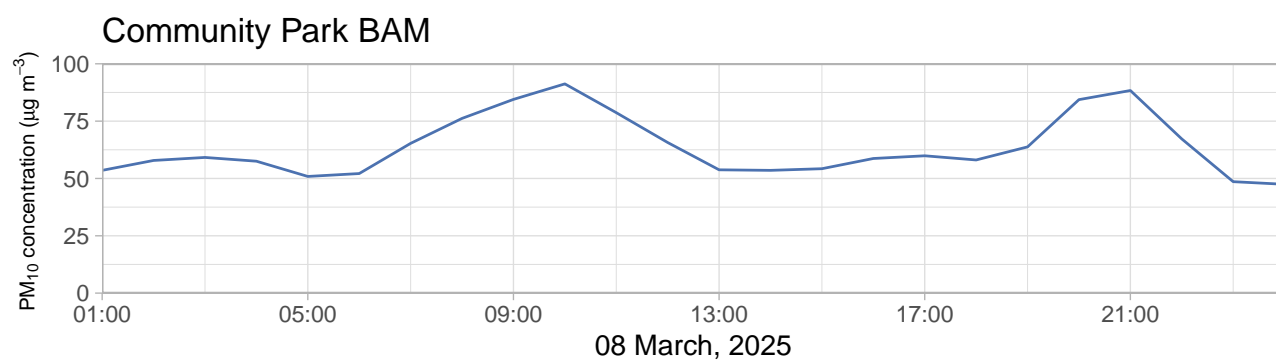
Community Monitoring

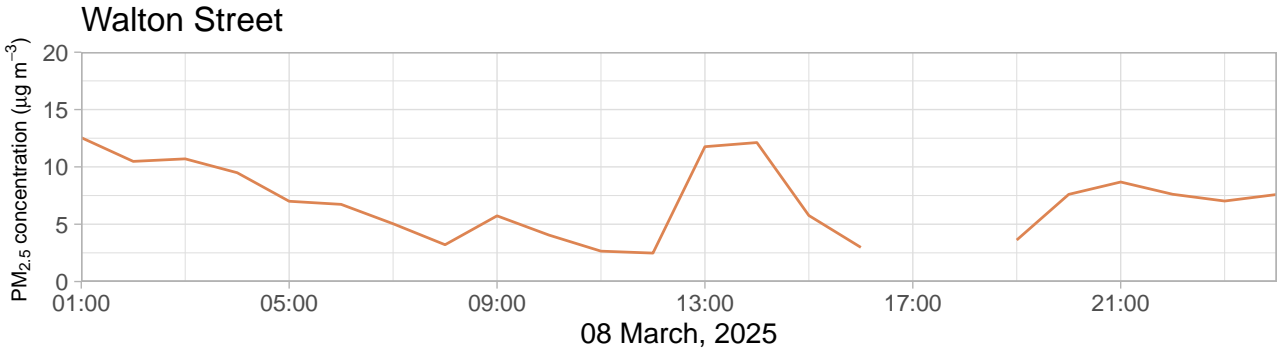
Monitoring data collected at the community monitoring sites is presented in this section.

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 BAM	From direction of ABC (WD < 180)	84	81
Community Park BAM	From other direction (WD > 180)	16	19
Walton Street	From direction of ABC (WD < 180)	88	89
Walton Street	From other direction (WD > 180)	12	11

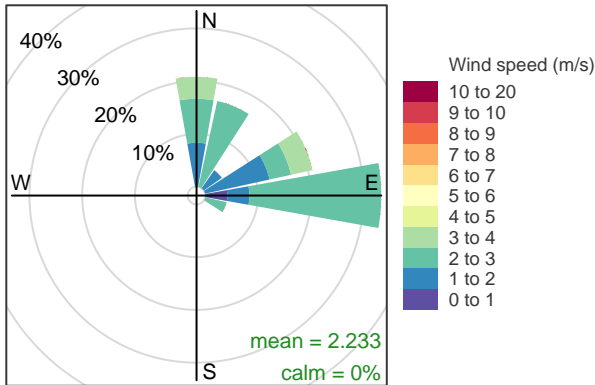
The figures below show the time series of 1-hour average measurements throughout 08 March, 2025





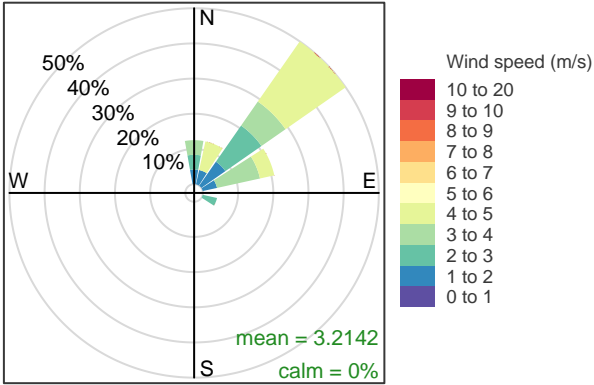
The figures below show wind roses summarising the period 08 March, 2025.

Community Park BAM



Frequency of counts by wind direction (%)

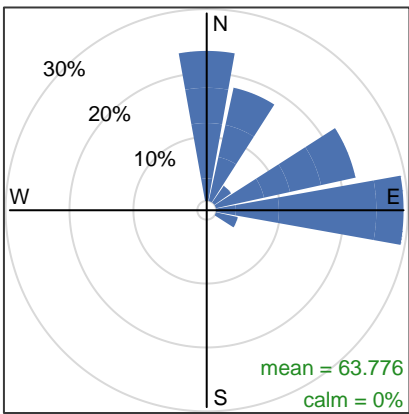
Walton Street



Frequency of counts by wind direction (%)

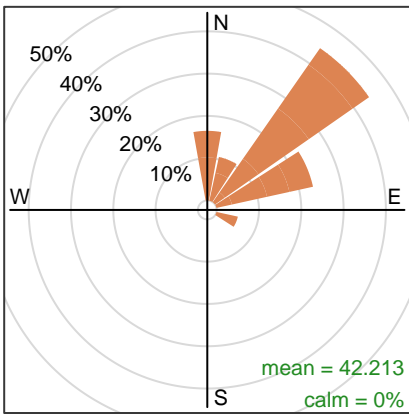
The figures below show dust roses summarising the period 08 March, 2025

Community Park BAM – PM₁₀



Proportion contribution to the mean (%)

Walton Street – PM₁₀



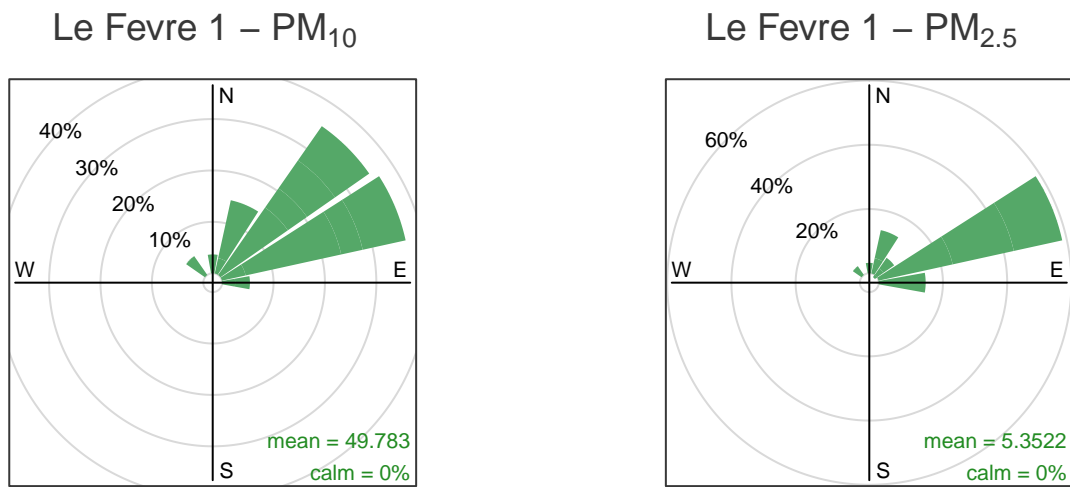
Proportion contribution to the mean (%)

EPA Monitoring

The 24-hour average PM_{10} 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} ($\mu\text{g}/\text{m}^3$)	$PM_{2.5}$ ($\mu\text{g}/\text{m}^3$)
CBD	Adelaide CBD	27	7
Christies	Southern Adelaide	32	-
Elizabeth	Northern Adelaide	36	7
Le Fevre 1	Northwestern Adelaide	49	5
Le Fevre 2	Northwestern Adelaide	32	4
Port Pirie Oliver St	Spencer Gulf	53	-
Whyalla Schulz Reserve	Spencer Gulf	47	-
Whyalla Walls St	Spencer Gulf	53	-

The dust roses below show the distribution of PM_{10} and $PM_{2.5}$ measured at Le Fevre 1 for the period 08 March, 2025.

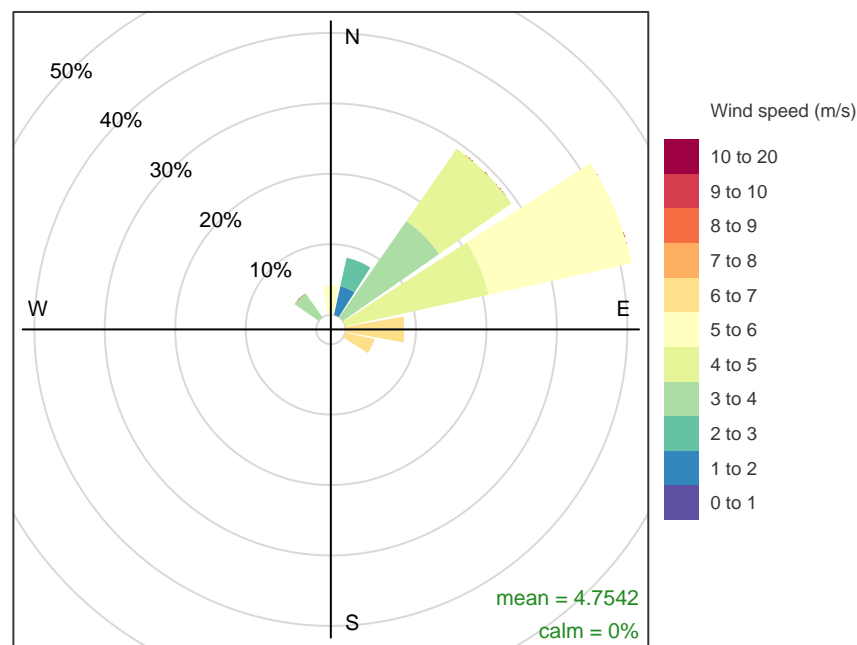


Proportion contribution to the mean (%)

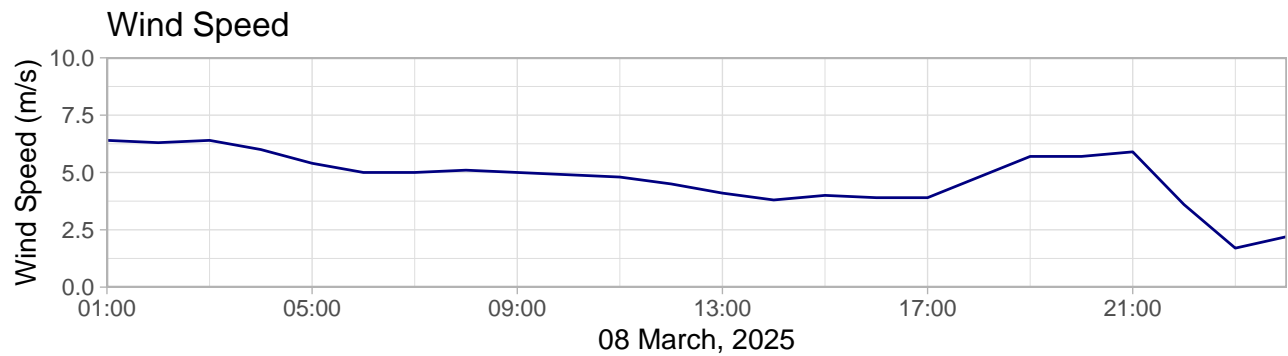
Proportion contribution to the mean (%)

Meteorological Monitoring

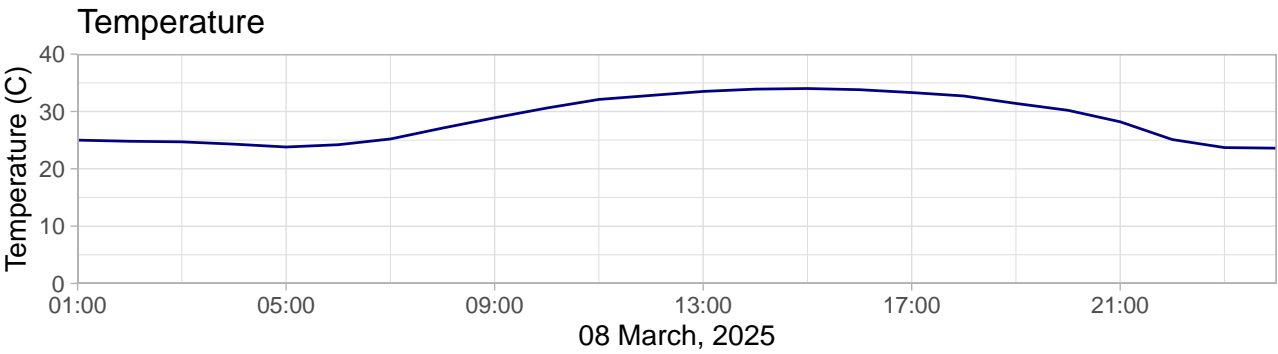
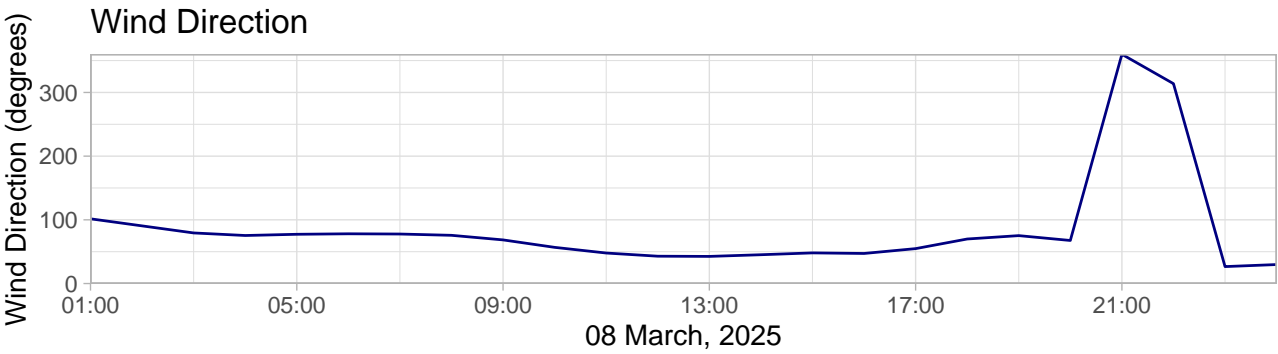
The following figures show meterological parameters measured¹ throughout the day.



Frequency of counts by wind direction (%)



¹Powered by [Meteomatics](#)



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Ground Level Particulate Notification Report - 29 March, 2025

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 Walton Street BAM monitoring sites during 29 March, 2025 is shown in [Table 1](#) below. The data indicates that:

- The 24-hour average PM₁₀ concentration measured at Community Park BAM of 52.8 µg/m³ exceeded the EPP Air criterion of 50 µg/m³

Table 1: Monitoring Summary

Monitoring Location	Pollutant	24-hour average (µg/m ³)	EPP Air Criterion (µg/m ³)
Community Park BAM	PM ₁₀	52.8	50
	PM _{2.5}	9.9	25
Walton Street	PM ₁₀	45.7	50
	PM _{2.5}	9.1	25

Light winds from the North East and Easterly directions for about 80-85% of the day, blowing across Adelaide Brighton Cement (ABC's), site towards the community to the west of the site. PM10 levels were generally elevated in the airshed, and it appears the PM10 contribution from winds blowing across the Adelaide Brighton Cement site has contributed to the high background levels of PM10 resulting in an exceedance of PM10 on the Community Park monitor. An increase in wind speed and change in wind direction from the South /South West from about 9 am, resulted in a reduction of PM10 levels as the air shed was flushed. Investigation of site activity has not identified a specific activity that has contributed to increase in PM10 dust. Site personnel, noted generally dusty conditions on the east and north eastern side of the Port River.

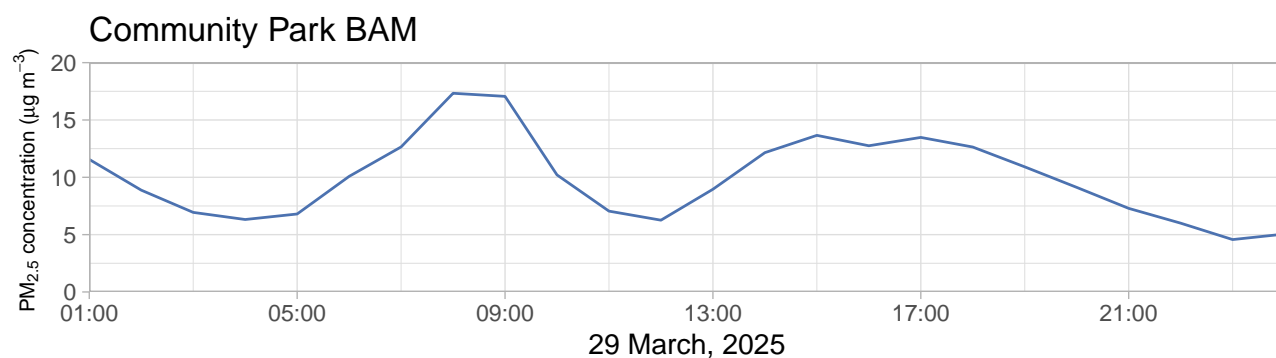
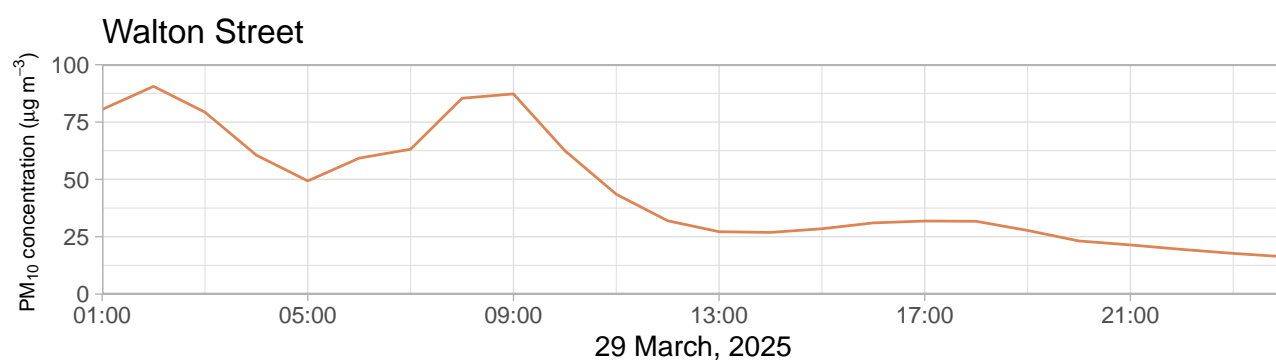
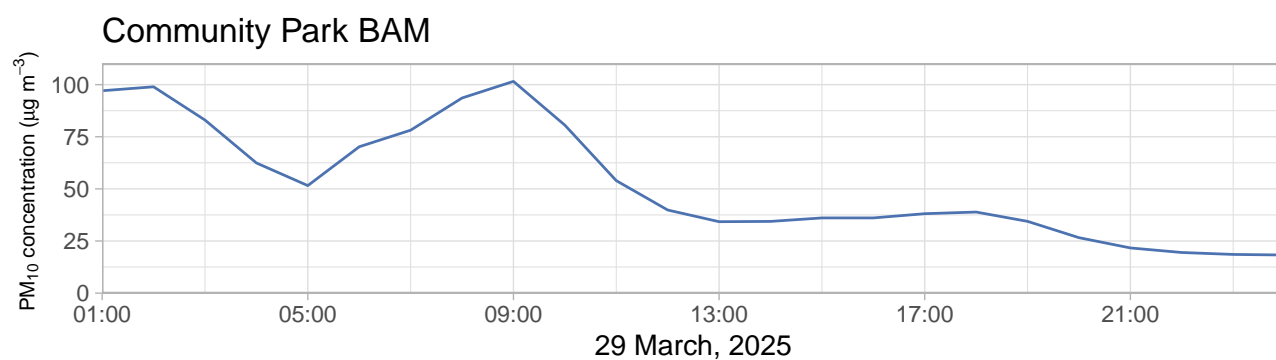
Community Monitoring

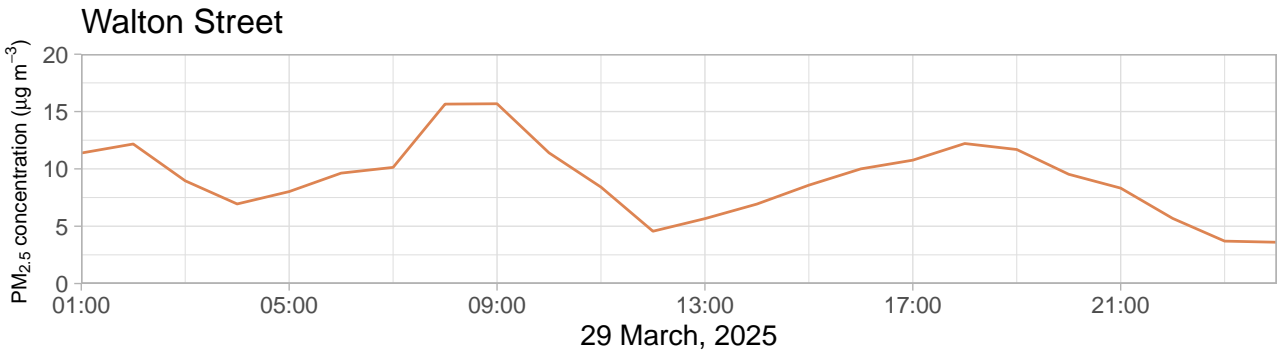
Monitoring data collected at the community monitoring sites is presented in this section.

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 BAM	From direction of ABC (WD < 180)	84	74
Community Park BAM	From other direction (WD > 180)	16	26
Walton Street	From direction of ABC (WD < 180)	78	76
Walton Street	From other direction (WD > 180)	22	24

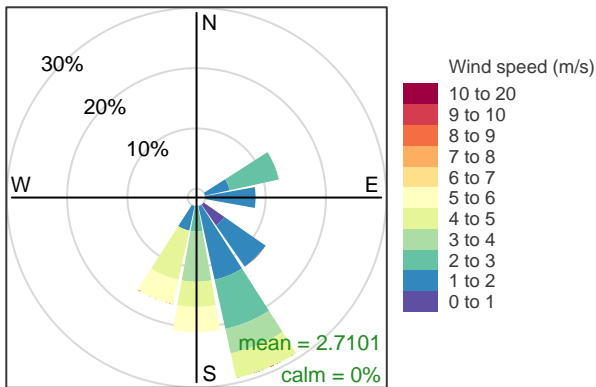
The figures below show the time series of 1-hour average measurements throughout 29 March, 2025





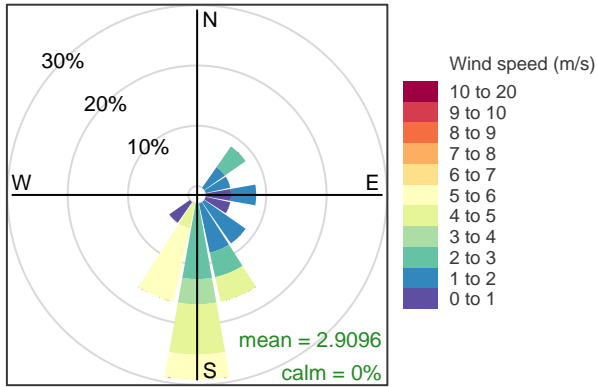
The figures below show wind roses summarising the period 29 March, 2025.

Community Park BAM



Frequency of counts by wind direction (%)

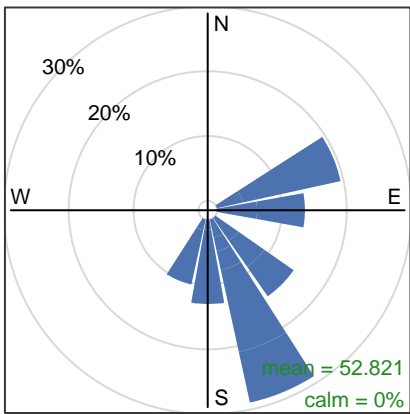
Walton Street



Frequency of counts by wind direction (%)

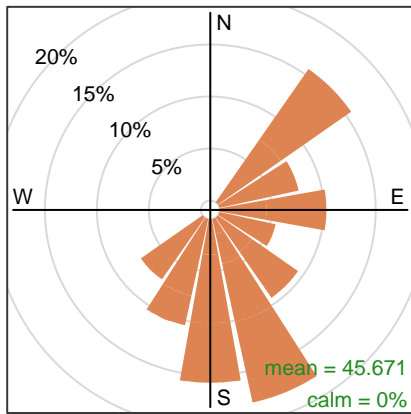
The figures below show dust roses summarising the period 29 March, 2025

Community Park BAM – PM₁₀



Proportion contribution to the mean (%)

Walton Street – PM₁₀



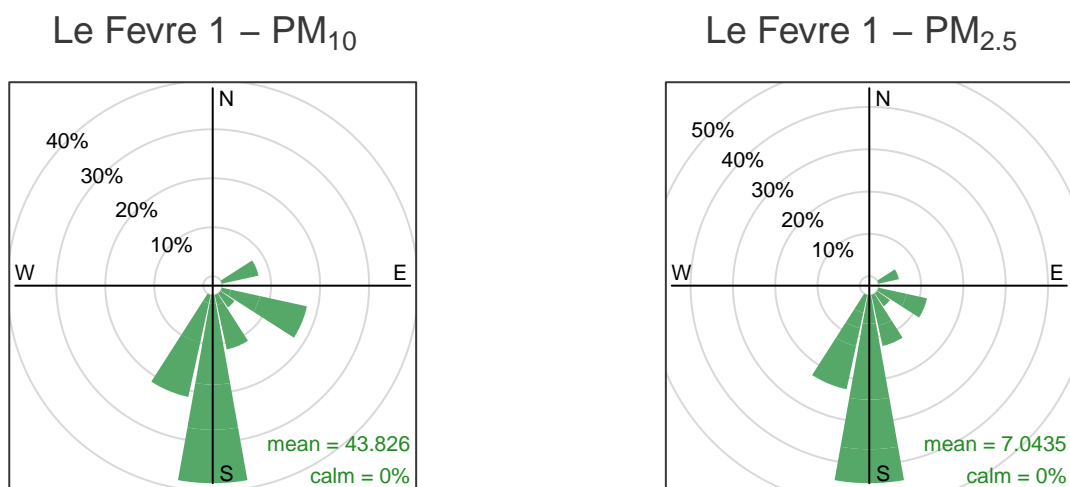
Proportion contribution to the mean (%)

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	30	8
Christies	Southern Adelaide	44	-
Elizabeth	Northern Adelaide	34	7
Le Fevre 1	Northwestern Adelaide	43	7
Le Fevre 2	Northwestern Adelaide	32	5
Port Pirie Oliver St	Spencer Gulf	40	-
Whyalla Schulz Reserve	Spencer Gulf	28	-
Whyalla Walls St	Spencer Gulf	25	-

The dust roses below show the distribution of PM₁₀ and PM_{2.5} measured at Le Fevre 1 for the period 29 March, 2025.

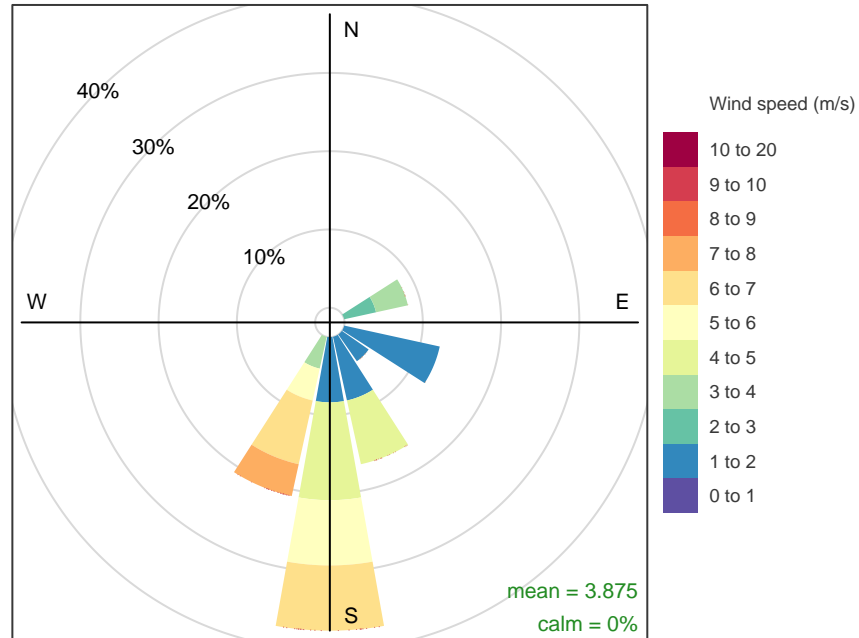


Proportion contribution to the mean (%)

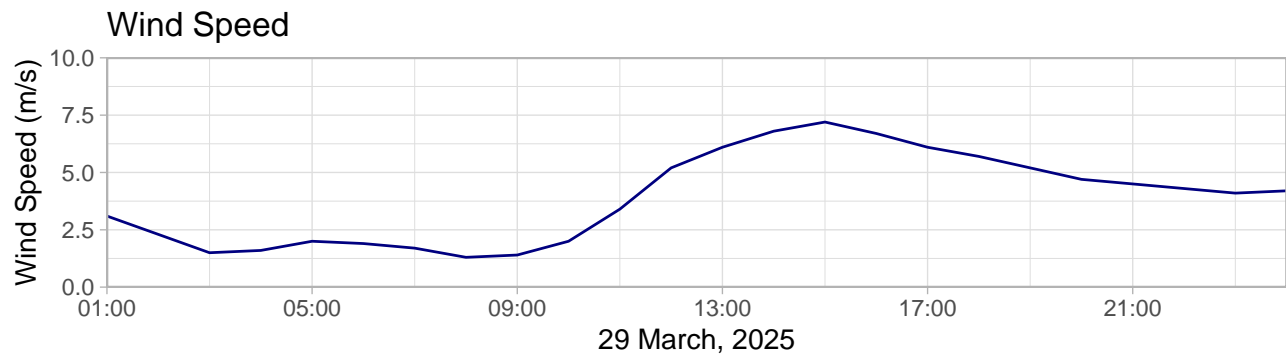
Proportion contribution to the mean (%)

Meteorological Monitoring

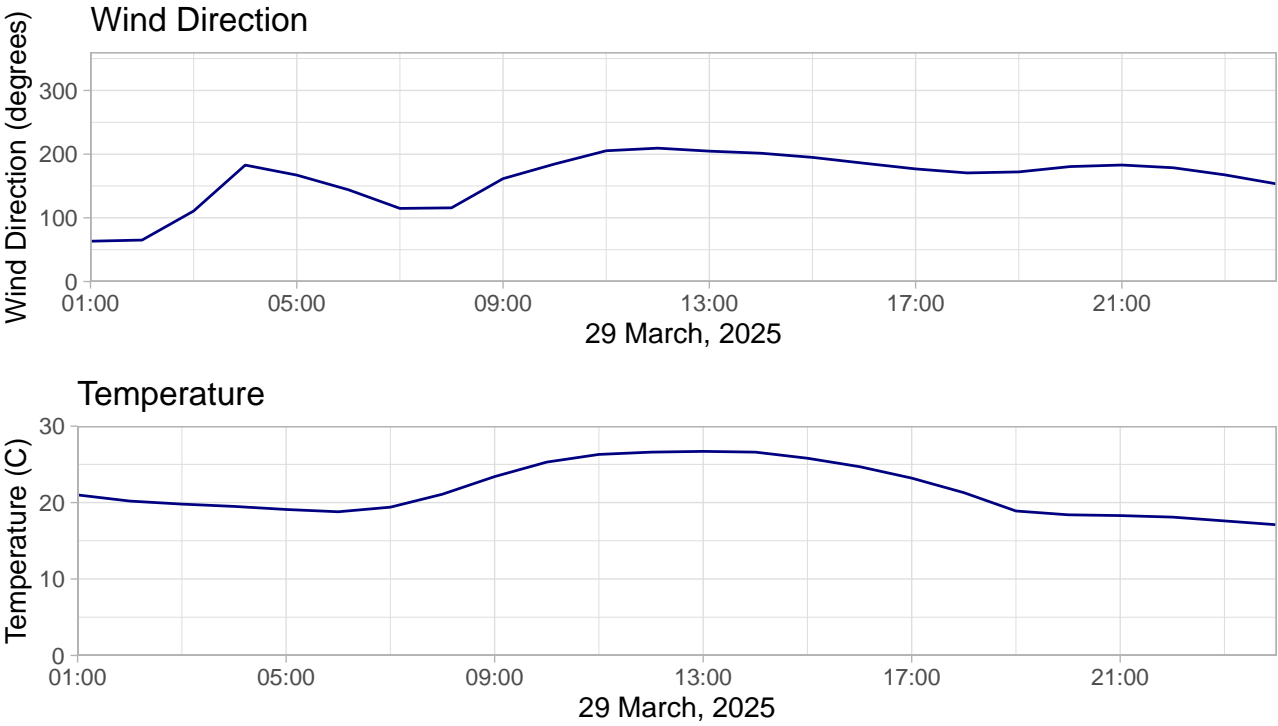
The following figures show meteorological parameters measured¹ throughout the day.



Frequency of counts by wind direction (%)



¹Powered by [Meteomatics](#)



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.