

Monthly Air Quality Report

May
2026

Richards Bay Clean Air Association (RBCAA)

Technical report update



May showed discrete PM, SO₂ and TRS/H₂S short-term events while 2026 NAAQS exceedance frequencies remained within annual allowances.

Signal	May outcome	Why it matters
Complaints	32 received	Up from 12 in May 2025; main allocations were THS 11, Unknown Localised 8 and Mondi 6.
Rainfall	93 mm average	RBCT recorded the highest monthly total at 141 mm; South32 was lowest at 27 mm.
PM ₁₀	1 daily NAAQS	eSikhaleni event allocated to a localised fire; annual daily allowance remains within threshold.
PM _{2.5}	6 daily NAAQS	Brackenham 2, Felixton 1 and Scorpio 3; Scorpio reached the 4/4 YTD daily allowance.
SO ₂	1 daily + 1 10-min	Scorpio daily event and CBD 10-minute event; no hourly NAAQS exceedances.
TRS/H ₂ S	0 OME 24h; 28 WHO 30min; 25 OME 10min	No RSA ambient standard; guidance events indicate odour potential and source-control need.

Priority follow-up

Watch Scorpio PM_{2.5}; close eSikhaleni distribution-board and Richardia PM_{2.5} / datalogger quality issues; track source responses for THS, Mondi/SETP, South32/CBD and the landfill-fire allocation.

May 2026 capture remained high

Network scope: 11 primary monitoring stations and 10 AirGradient screening monitors.

All reporting streams met or exceeded 96% valid data capture for May 2026.

11

primary stations
RBCAA network

10

AirGradient monitors
screening network

Data caveats

eSikhaleni distribution-board outage on 29-30 May;
Richardia PM_{2.5} / datalogger caveats on 6-7 and 10 May.

Capture range by stream



Review interpretation

The data-quality signal supports use of the May data for monthly briefing purposes. The caveats are short and localised, but should remain visible in follow-up tracking because they can affect station-specific interpretation.

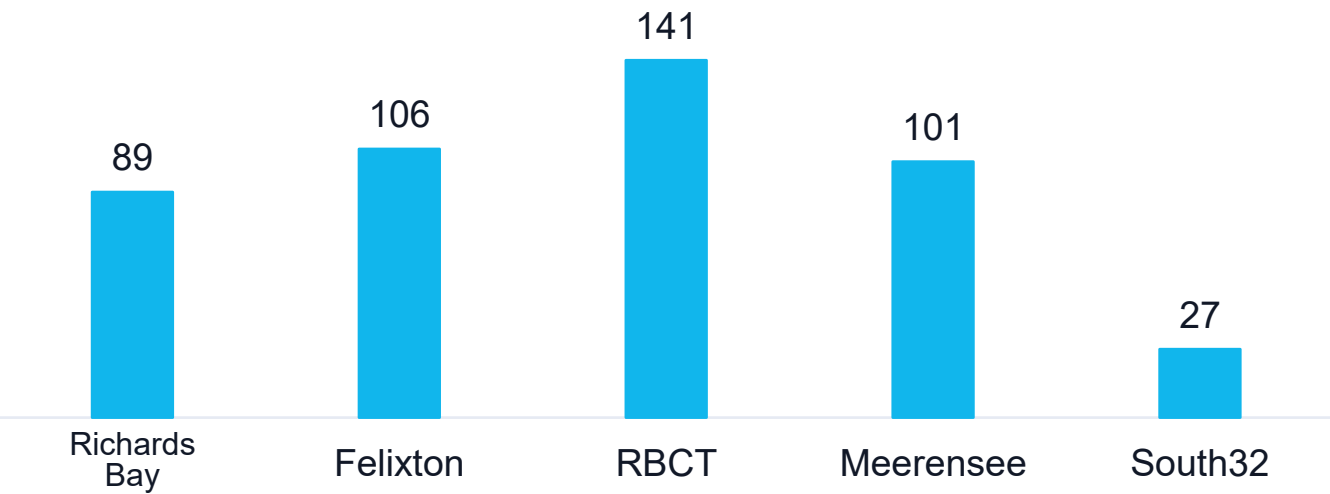
Arboretum wind regime

May 2026 winds blew predominantly along the WNW-NE axis; mean wind speed was 2.6 m/s.

Valid wind data at Arboretum were 98%; calms accounted for 2%.

Period	Dominant sector	Sector 2	Calms
May 2025	NW-NE 63%	SSW-WSW 21%	1%
May 2026	WNW-NE 63%	WSW 7%	2%

Rainfall totals by reporting location, May 2026 (mm)



Rainfall

Network average rainfall was 93 mm; RBCT was highest at 141 mm.

Use in review

Dominant wind axes remain important for source-to-receptor screening.

Source screening

Wind direction, rainfall and complaint timing should be considered together.

May 2026 complaint signal

Thirty-two complaints were received, up from 12 in May 2025.

Largest allocations: THS, Unknown Localised Source and Mondi.

Main type: odour. Leading region: Felixton.

32

complaints

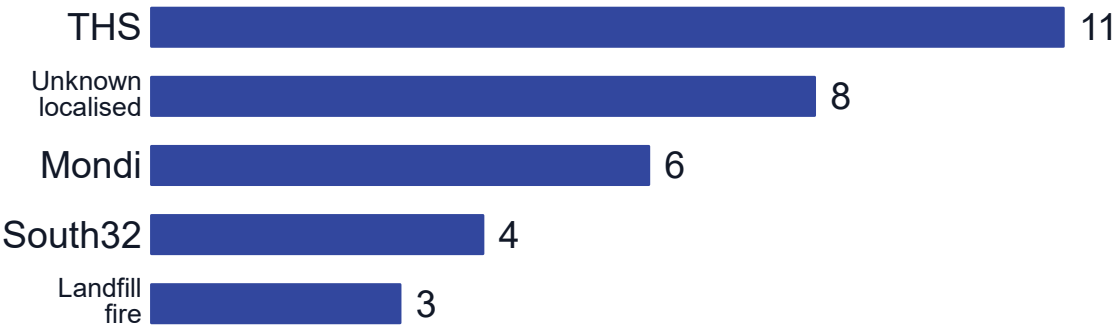
+20

vs May 2025

15

odour complaints

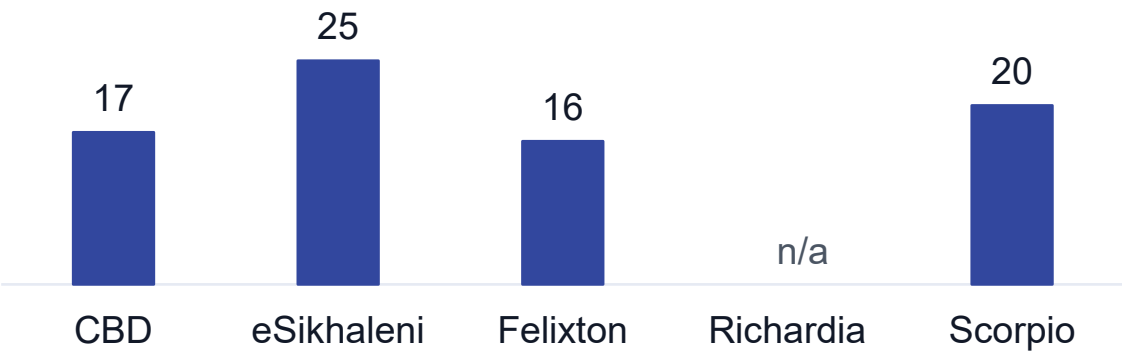
Source allocations by complaint count



Distribution lens

Felixton led by region (11), followed by Meerensee (8) and Veldenvlei (7). Odour accounted for 15 complaints; clinical + odour accounted for 6.

Monthly average PM₁₀, May 2026 (µg/m³)



May outcome

PM₁₀ data capture ranged from 97-100% for reporting PM₁₀ stations.

One 24-hour RSA and WHO exceedance was recorded at eSikhaleni and allocated to a localised fire incident.

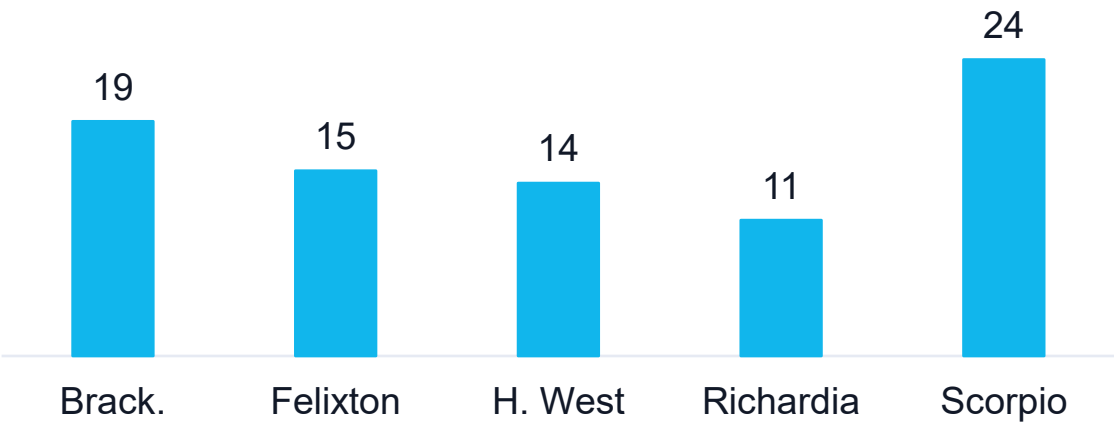
Review refinement

Richardia is shown as n/a rather than zero to avoid implying a measured zero concentration.

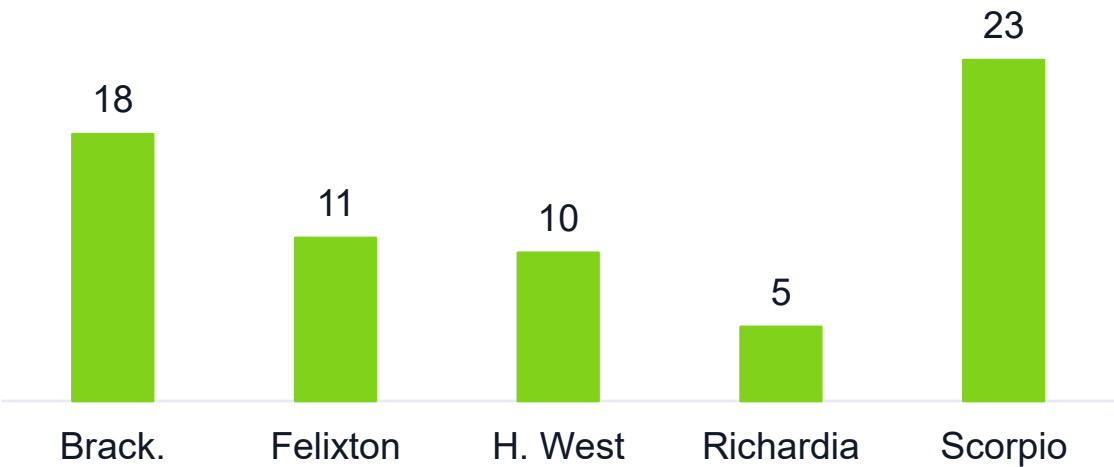
Assessment

May means were below the RSA annual standard value at stations with sufficient data. As a screening comparison, May means at CBD, eSikhaleni, Felixton and Scorpio were above the WHO annual guideline value.

Monthly average PM_{2.5}, May 2026 (µg/m³)



WHO PM_{2.5} exceedance-days by station

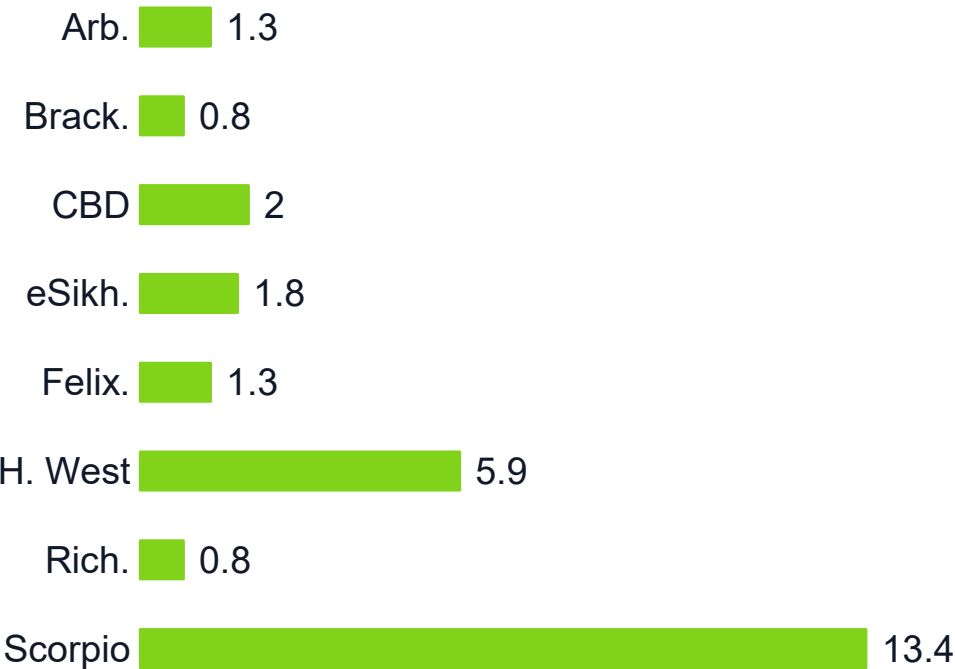


May outcome

Six PM_{2.5} 24-hour NAAQS exceedances were recorded: Brackenheim (2), Felixton (1) and Scorio (3). WHO exceedance-days totalled 67. Scorio reached the four-event annual daily NAAQS allowance year-to-date.

Watch item: Scorio PM_{2.5} 4/4 YTD

Monthly average SO₂, May 2026 (ppb)



May outcome

SO₂ capture ranged from 97-100%. The month recorded one 24-hour RSA exceedance at Scorio, zero 1-hour RSA exceedances, and one 10-minute RSA/WHO exceedance at CBD.

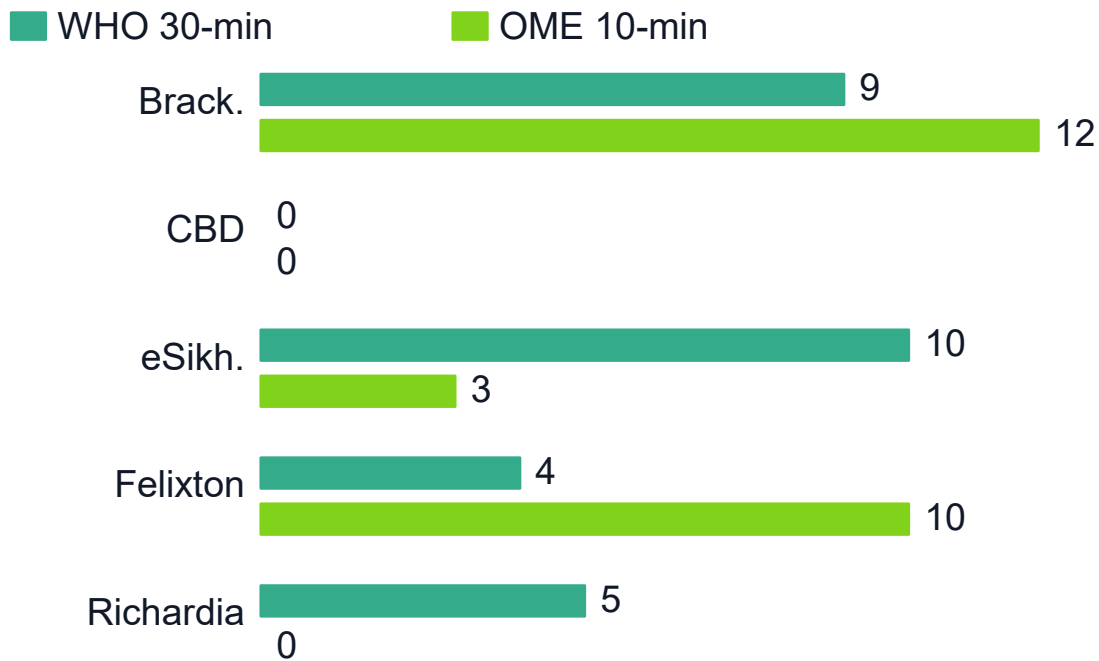
WHO 24-hour guidance

Twelve WHO 24-hour exceedance-days were recorded at Harbour West (4) and Scorio (8).

YTD regulatory status

SO₂ remained within annual allowable frequencies; Scorio is 3/4 for daily NAAQS exceedance-days, with hourly and 10-minute counts still well below annual allowances.

TRS/H₂S exceedances by station, May 2026



May outcome

No OME 24-hour exceedances were recorded. The month recorded 28 WHO 30-minute exceedances and 25 OME 10-minute exceedances, mainly at Brackenham, eSikhaleni and Felixton.

Interpretation

TRS/H₂S has no South African NAAQS standard; these exceedances indicate short-term odour-annoyance potential and source-control need, not regulatory non-compliance.

Operational implication

Prioritise source-control follow-up at locations and source sectors aligned with short-term odour guidance events.

PM₁₀

Within annual allowable 24-hour NAAQS frequency; one exceedance recorded at eSikhaleni year-to-date.

PM_{2.5}

Within annual allowable frequency; Brackenham 2, Felixton 1 and Scorio 4. Scorio has reached, but not exceeded, the annual allowance.

SO₂

Within annual frequencies: Scorio 3/4 daily; Harbour West 1/88 and Scorio 8/88 hourly; CBD 1/526, Harbour West 3/526 and Scorio 8/526 ten-minute.

TRS / H₂S

No South African ambient standard exists; no regulatory compliance determination applies.

Implication

Regulatory frequencies remain within thresholds, with Scorio PM_{2.5} as the key watch item. A further Scorio PM_{2.5} daily NAAQS exceedance would exceed the annual allowance.

PM₁₀

WHO 24-hour exceedance-days: eSikhaleni (1) and Scorpio (1).

PM_{2.5}

WHO 24-hour exceedance-days: Brackenhams (63), Felixton (31), Harbour West (22), Richardia (5) and Scorpio (82).

SO₂

WHO 24-hour exceedance-days: CBD (2), Harbour West (15) and Scorpio (33).

TRS / H₂S

OME 24-hour exceedances were zero at all stations. WHO 30-minute exceedances: CBD 25, Brackenhams 36, eSikhaleni 11, Felixton 5, Richardia 20. OME 10-minute exceedances: CBD 8, Brackenhams 28, eSikhaleni 4, Felixton 12.

Interpretation

Guidance exceedances do not equal NAAQS non-compliance; they identify short-term exposure or odour-annoyance conditions for operational follow-up.