Air Quality Bulletin

Central Queensland

December 2025

DELIVERING FOR QUEENSLAND

Queensland Government

Prepared by: Air Quality Monitoring
Department of the Environment, Tourism
Science and Innovation.

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May 2026

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Introduction

Air quality monitoring gathers information on the quality of the air environment. The objectives of the monitoring are to check compliance with ambient air quality guidelines, identify long-term trends in air quality, investigate local air quality concerns, and assess the effectiveness of air quality management strategies.

In Central Queensland, air quality monitoring was carried out by the Queensland Government at seven sites in the Gladstone region, two sites in Moranbah, and one site in Rockhampton, Mackay, Emerald, Blackwater and Bluff during December 2025.

Air pollutants monitored included nitrogen dioxide, sulfur dioxide, carbon monoxide, ozone, benzene, toluene, total xylenes, formaldehyde, PM_{10} and $PM_{2.5}$ (particles with diameters less than 10µm and 2.5µm respectively) and visibility-reducing particles. The air pollutants monitored at Central Queenland sites are shown in Table 1. Site locations are shown in Figure 24 at the end of this bulletin.

The monitoring site in central Gladstone (Memorial Park) uses an open-path monitoring method. Pollutant measurements at this site are the average concentration over the light path running from the Gladstone Entertainment Centre to Memorial Park (see Figure 24).

The Moranbah (East) site on Utah Drive was established in March 2011 to assess the impact of coal mining operations on the community. In July 2020 a second Moranbah (West) site on Cunningham Way was commissioned to further assess mining impacts.

The Blackwater and Bluff monitoring sites were established in February 2019 and November 2020 respectively to also assess the impact of coal mining operations. The Emerald site was established in February 2020 to obtain information on particle levels in an inland community not impacted by mining activities.

Monitoring commenced at West Rockhampton in September 2025.

Reporting protocol

Data presented in this bulletin are based on clock hours. Hourly or other averages are constrained to start and finish on a clock hour.

Air quality summary graphs

The maximum recorded level for each day is used to show the day-to-day variation in air quality. Figures 1 to 18 summarise the air quality data for the Gladstone and Rockhampton region sites and figures 19 to 23 summarise the air quality data for the Mackay and Inland Central Queensland sites.

Air quality summary tables

Tables 4 to 17 present monthly summaries of air quality data for the preceding 12 months. These tables show the month-to-month variation in air quality. A monthly entry is given when at least three-fifths of the maximum possible number of observations during the month are available. When data is not available for the entire month, due to equipment malfunction or other reason, this is indicated by the abbreviation 'n.d.' (no data). A dash is inserted when less than three-fifths of the data are available. Where no data is recorded, the reason for the low data availability is summarised in Table 18 at the end of this bulletin.

Guidelines

Air quality measurements are compared against air quality objectives contained in the Queensland Environmental Protection (Air) Policy 2019 and the Environmental Protection (Air) Amendment Policy 2024 (in force from September 2024 or January 2025) (EPP (Air)) to assess whether pollutant levels could harm health and wellbeing. The EPP (Air) visibility objective is used to assess the impact of visibility-reducing particles on visual air quality. The relevant guidelines are shown in the air quality summary table for each pollutant.

Table 1. Air pollutants monitored at Central Queensland sites.

		Nitrogen dioxide	Sulfur dioxide	Carbon monoxide	Ozone	Benzene	Toluene	Total xylenes	Formaldehyde	PM_{10}	$PM_{2.5}$	Visibility-reducing particles
Gladstone region	Targinie	✓	✓							✓	✓	✓
	Boat Creek	✓	✓							✓	✓	✓
	Clinton	✓	✓							✓	✓	✓
	Auckland Point									✓		
	Memorial Park	✓	✓		✓	✓	✓	✓	✓			
	South Gladstone	✓	✓							✓	✓	✓
	Boyne Island	✓	✓	✓	✓					✓	✓	✓
Rockhampton	West Rockhampton	✓	✓		✓					✓	✓	✓
Mackay	West Mackay									✓	✓	✓
Inland Central Queensland	Moranbah (East)									✓	✓	
	Moranbah (West)									✓	✓	
	Blackwater									✓	✓	
	Bluff									✓		
	Emerald									✓	✓	

Compliance with air quality guidelines - Gladstone and Rockhampton region

During December, measured pollutant levels did not exceed EPP (Air) air quality objectives at the Queensland Government air monitoring sites in the Gladstone and Rockhampton regions.

Table 2. Number of occasions during December when measured levels exceeded EPP (Air) objectives for nitrogen dioxide, sulfur dioxide, carbon monoxide, ozone, benzene, toluene, xylenes, formaldehyde, PM10, PM2.5 and visibility-reducing particles at the Queensland Government air monitoring sites in the Gladstone and Rockhampton regions.

Air Pollutant	Averaging period	Exceedances
Nitrogen dioxide	*EPP (Air)*	
	Annual	0
	1-hour	0
Sulfur dioxide	*EPP (Air)*	
	Annual	0
	24-hour	0
	1-hour	0
Carbon monoxide	*EPP (Air)*	
	8-hour	0
Ozone	*EPP (Air)*	
	4-hour	0
	1-hour	0
Benzene	*EPP (Air)*	
	Annual	0
Toluene	*EPP (Air)*	
	Annual	0
	24-hour	0
Xylenes	*EPP (Air)*	
	Annual	0
	24-hour	0
Formaldehyde	*EPP (Air)*	
	24-hour	0
PM_{10}	*EPP (Air)*	
	Annual	0
	24-hour	0
$PM_{2.5}$	*EPP (Air)*	
	Annual	0
	24-hour	0
Visibility-reducing particles (refers to protecting aesthetic environment, not health and wellbeing).	*EPP (Air)* 1-hour	0

Compliance with air quality guidelines - Mackay and inland Central Queensland.

During December, measured pollutant levels, with the exception of PM_{10}, did not exceed EPP (Air) air quality objectives at the Queensland Government air monitoring sites in Mackay, Moranbah, Emerald, Blackwater and Bluff.

Over the 12-month period ending December 2025, the EPP (Air) annual average PM_{10} objective was exceeded at the Moranbah (West) site. Monitoring indicates that a range of particle sources contributed to the exceedance, including erosion of dry ground surfaces by strong winds, local activities such as vehicle movements on unsealed roads close to the monitoring site, dust from mining operations and bushfire smoke events.

Table 3. Number of occasions during December when measured levels exceeded EPP (Air) objectives for $PM_{2.5}$, PM_{10}, and visibility-reducing particles at Queensland Government air monitoring sites in Mackay, Moranbah, Emerald, Blackwater and Bluff.

Pollutant	Averaging period	Exceedences
PM_{10}	*EPP (Air)*	
	Annual	1
	24-hour	0
$PM_{2.5}$	*EPP (Air)*	
	Annual	0
	24-hour	0
Visibility-reducing particles (refers to protecting aesthetic environment, not health and wellbeing).	*EPP (Air)* 1-hour	0

Measured ambient concentrations - Gladstone and Rockhampton region

Nitrogen dioxide

Figure 1. Ambient concentrations of nitrogen dioxide at Targinie, Boat Creek and Clinton sites. Daily maximum 1-hour average concentrations (ppm), December 2025.

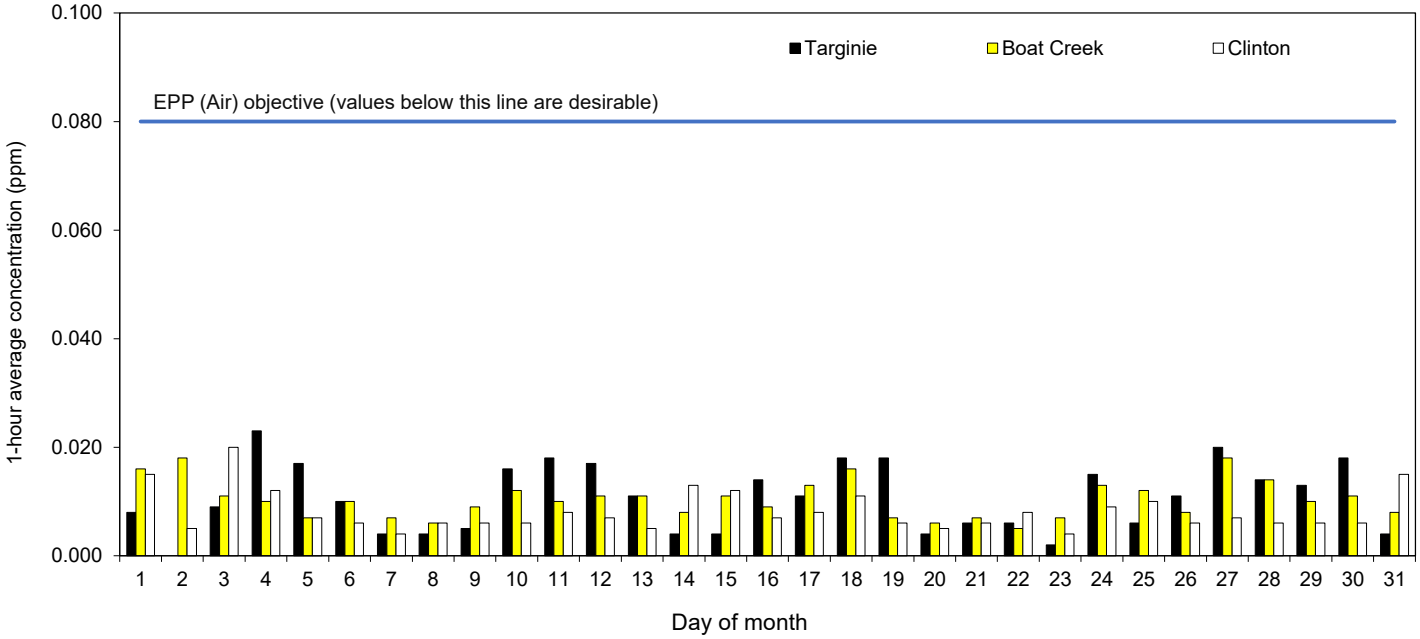


Figure 2. Ambient concentrations of nitrogen dioxide at Memorial Park, South Gladstone, Boyne Island and West Rockhampton sites. Daily maximum 1-hour average concentrations (ppm), December 2025.

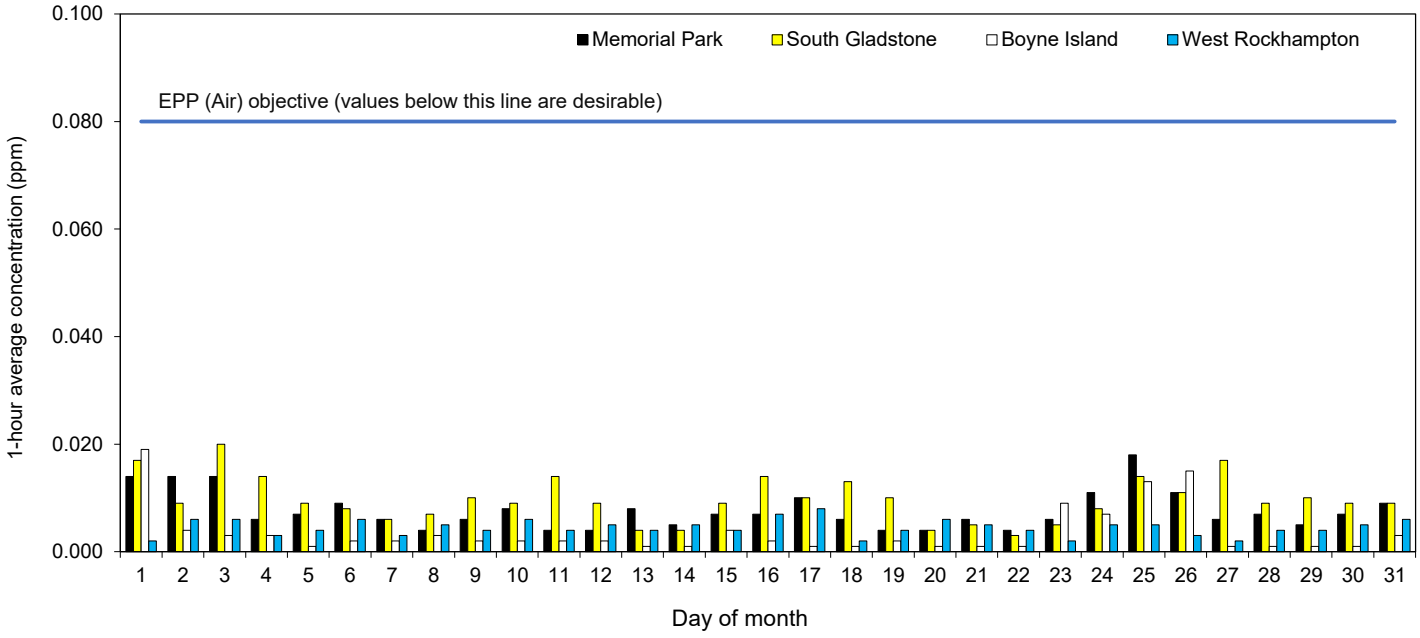


Table 4. Ambient concentrations of nitrogen dioxide. Annual average and monthly maximum 1-hour concentrations (ppm), January 2025 to December 2025.

Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Gladstone region													
Targinie													
Annual average:	0.003												
Maximum 1-hour		0.022	0.023	0.024	0.020	0.024	0.029	0.033	0.036	0.033	0.033	0.027	0.023
% I.A.		90	100	100	99	100	100	100	100	100	100	100	98
Boat Creek													
Annual average:	0.005												
Maximum 1-hour		0.020	0.018	0.017	0.022	0.024	0.028	0.029	0.027	0.028	0.022	0.021	0.018
% I.A.		99	100	99	100	100	98	75	100	99	99	100	100
Clinton													
Annual average:	0.005												
Maximum 1-hour		0.023	0.010	0.014	0.018	0.027	0.032	0.034	0.026	0.025	0.027	0.028	0.020
% I.A.		99	99	100	99	100	99	99	99	100	99	100	100
Memorial Park													
Annual average:	0.004												
Maximum 1-hour		0.022	0.020	0.028	0.025	0.022	0.033	0.029	0.033	0.020	0.031	0.021	0.018
% I.A.		99	99	97	99	99	99	97	99	99	99	79	99
South Gladstone													
Annual average:	0.005												
Maximum 1-hour		0.029	0.024	0.016	0.023	0.021	0.030	0.032	0.037	0.027	0.024	0.026	0.020
% I.A.		99	100	100	100	100	99	100	100	100	100	99	100
Boyne Island													
Annual average:	0.002												
Maximum 1-hour		0.024	0.010	0.020	0.014	0.012	0.023	0.031	0.022	0.016	0.023	0.033	0.019
% I.A.		98	100	100	99	99	99	100	96	100	99	99	100
Rockhampton													
West Rockhampton[†]													
Annual average:	-												
Maximum 1-hour		n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	-	0.02	0.016	0.008
% I.A.		0	0	0	0	0	0	0	0	45	100	99	99

% I.A. indicates instrument availability. - indicates less than three-fifths of the data are available. n.d. indicates no data are available.

[†] Nitrogen dioxide monitoring commenced at West Rockhampton in September 2025.

The EPP (AIr) air quality objectives for nitrogen dioxide are an annual average of 0.015ppm and a 1-hour average of 0.080ppm.

Sulfur dioxide

Figure 3. Ambient concentrations of sulfur dioxide at Targinie, Boat Creek and Clinton sites. Daily 24-hour average concentrations (ppm), December 2025.

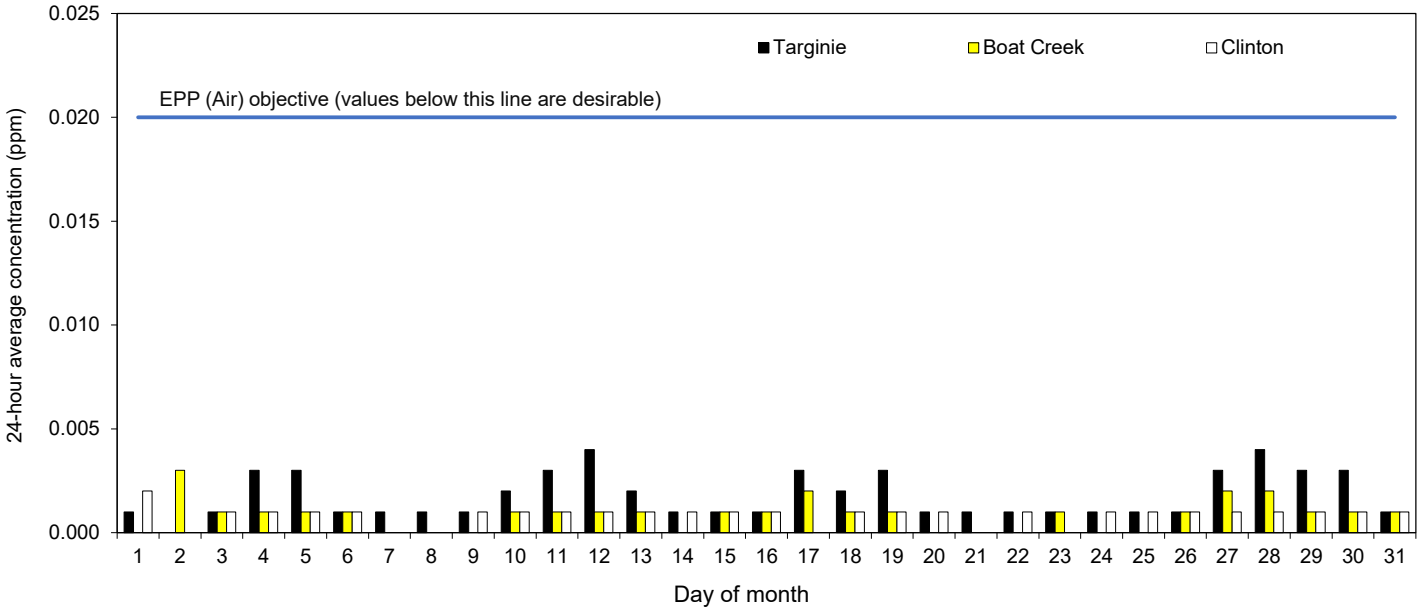


Figure 4. Ambient concentrations of sulfur dioxide at Memorial Park, South Gladstone, Boyne Island and West Rockhampton sites. Daily 24-hour average concentrations (ppm), December 2025.

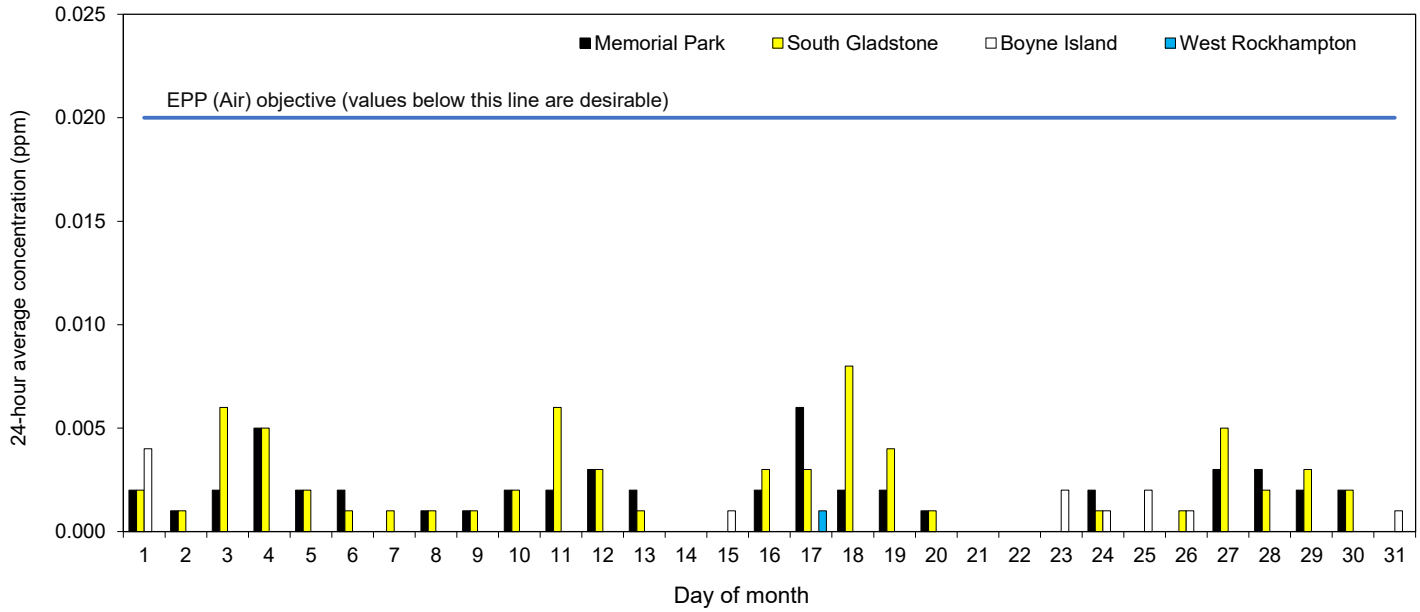


Figure 5. Ambient concentrations of sulfur dioxide at Targinie, Boat Creek and Clinton sites. Daily maximum 1-hour average concentrations (ppm), December 2025.

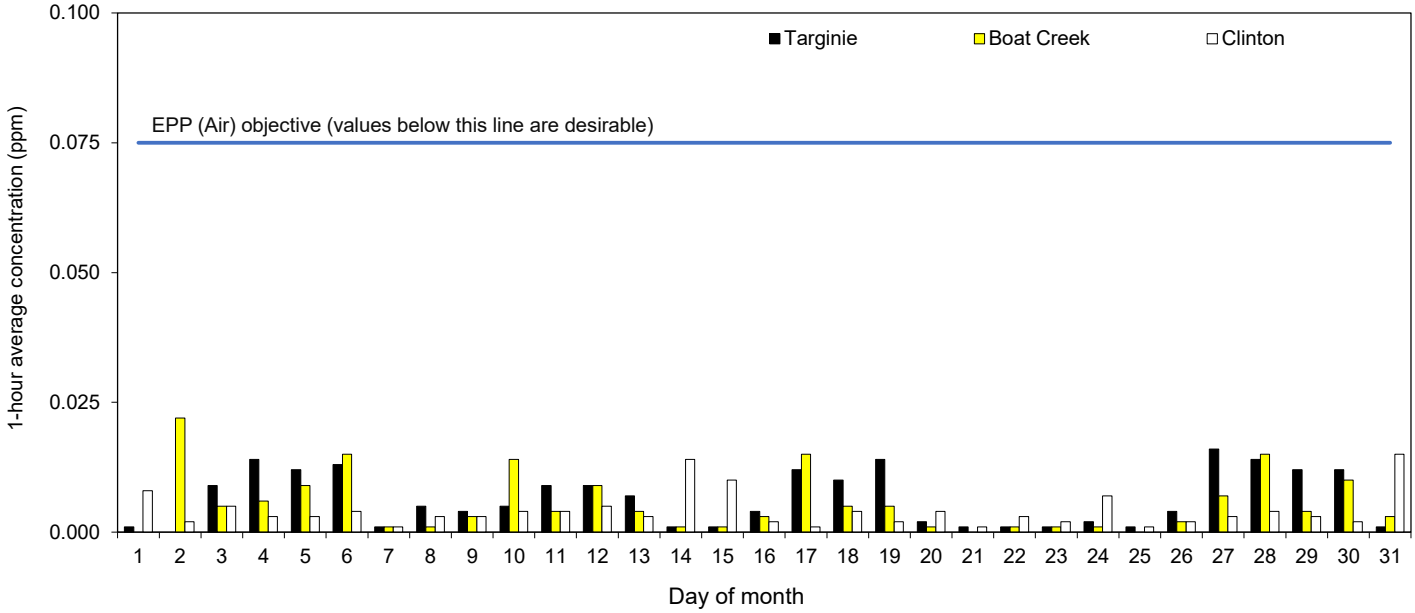


Figure 6. Ambient concentrations of sulfur dioxide at Memorial Park, South Gladstone, Boyne Island and West Rockhampton sites. Daily maximum 1-hour average concentrations (ppm), December 2025.

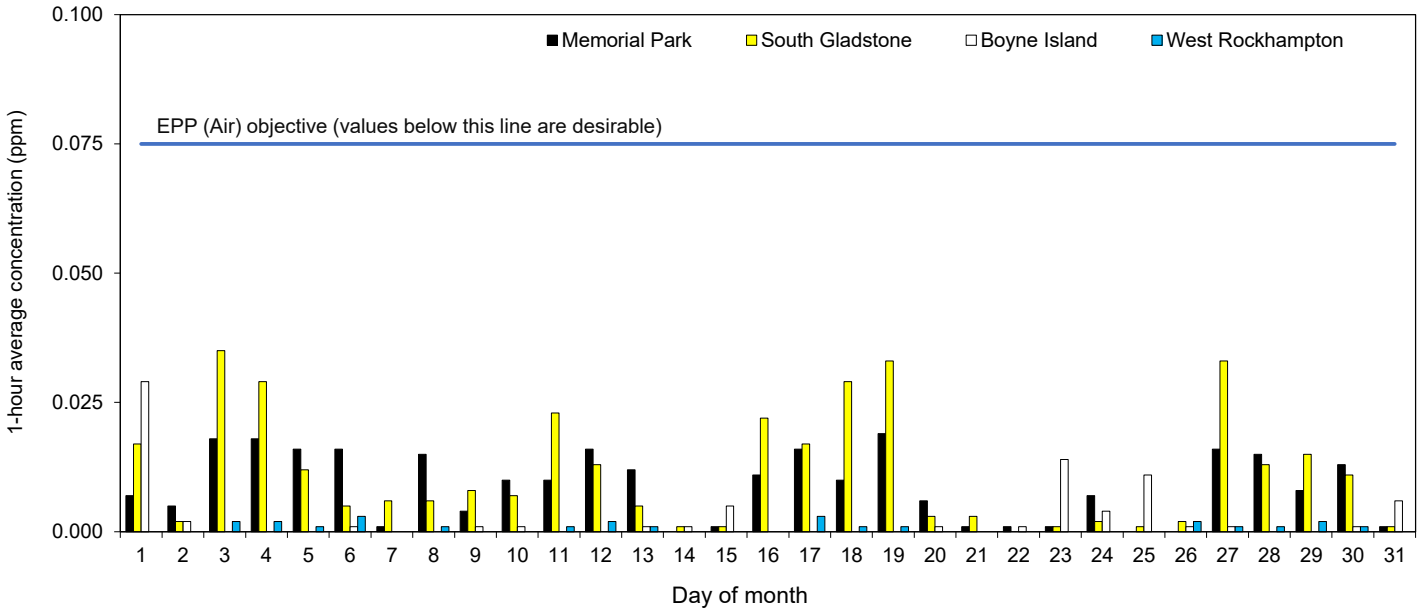


Table 5. Ambient concentrations of sulfur dioxide. Annual average and monthly maximum 24-hour and 1-hour average concentrations (ppm), January 2025 to December 2025.

Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Gladstone region													
Targinie													
Annual average:	0.002												
Maximum 24-hour		0.006	0.006	0.007	-	0.006	0.010	0.010	0.014	0.007	0.005	0.004	0.004
Maximum 1-hour		0.024	0.023	0.021	-	0.019	0.033	0.051	0.044	0.025	0.026	0.017	0.016
% I.A.		90	100	100	53	99	99	99	100	100	100	100	97
Boat Creek													
Annual average:	0.001												
Maximum 24-hour		0.004	0.006	0.003	0.003	0.004	0.004	0.003	0.004	0.006	0.002	0.002	0.003
Maximum 1-hour		0.024	0.029	0.013	0.023	0.026	0.030	0.016	0.041	0.036	0.021	0.026	0.022
% I.A.		99	100	99	100	100	98	75	100	99	99	100	100
Clinton													
Annual average:	0.001												
Maximum 24-hour		0.002	0.001	0.002	0.002	0.002	0.003	0.003	0.002	0.003	0.003	0.002	0.002
Maximum 1-hour		0.011	0.006	0.015	0.008	0.021	0.023	0.034	0.024	0.023	0.025	0.017	0.015
% I.A.		99	99	100	99	100	99	99	99	100	100	100	100
Memorial Park													
Annual average:	0.002												
Maximum 24-hour		0.006	0.006	0.006	0.004	0.005	0.007	0.005	0.007	0.007	0.005	0.005	0.006
Maximum 1-hour		0.026	0.035	0.033	0.025	0.029	0.049	0.034	0.025	0.020	0.052	0.024	0.019
% I.A.		97	98	93	95	97	98	93	95	95	97	77	93
South Gladstone													
Annual average:	0.002												
Maximum 24-hour		0.008	0.010	0.006	0.004	0.004	0.003	0.002	0.006	0.013	0.011	0.003	0.008
Maximum 1-hour		0.035	0.058	0.024	0.022	0.029	0.018	0.034	0.049	0.068	0.039	0.023	0.035
% I.A.		99	100	100	100	100	99	100	97	100	100	97	100
Boyne Island													
Annual average:	0.001												
Maximum 24-hour		0.007	0.001	0.002	0.003	0.008	0.002	0.006	0.009	0.004	0.013	0.008	0.004
Maximum 1-hour		0.051	0.006	0.012	0.020	0.058	0.011	0.061	0.043	0.043	0.046	0.066	0.029
% I.A.		95	100	100	99	100	99	100	100	100	99	99	100
Rockhampton													
West Rockhampton†													
Annual average:	-												
Maximum 24-hour		n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	-	0.001	0.001	0.001
Maximum 1-hour		n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	-	0.005	0.005	0.003
% I.A.		0	0	0	0	0	0	0	0	45	100	99	99

% I.A. indicates instrument availability. - indicates less than three-fifths of the data are available. n.d. indicates no data are available.

† Sulfur dioxide monitoring commenced at West Rockhampton in September 2025.

The EPP (AIr) air quality objectives for sulfur dioxide are a 24-hour average of 0.020ppm and a 1-hour average of 0.075ppm.

Carbon monoxide

Figure 7. Ambient concentrations of carbon monoxide at Boyne Island site. Daily maximum 8-hour average concentrations (ppm), December 2025.

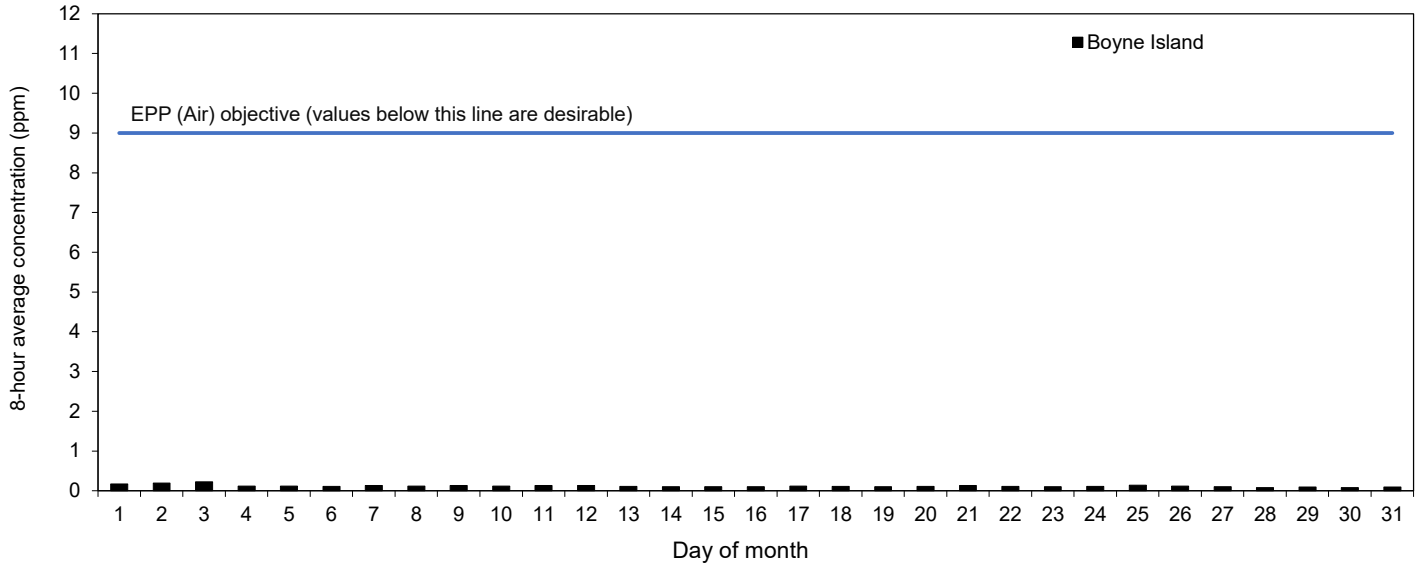


Table 6. Ambient concentrations of carbon monoxide. Monthly maximum 8-hour average concentrations (ppm), January 2025 to December 2025.

Site	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Gladstone region												
Boyne Island												
Maximum 8-hour	0.22	0.25	0.17	0.96	0.34	-	0.18	0.37	0.21	0.33	0.46	0.22
% I.A.	98	100	100	99	100	37	69	100	100	99	99	100

% I.A. indicates instrument availability. - indicates less than three-fifths of the data are available. n.d. indicates no data are available.

The EPP (AIr) air quality objective for carbon monoxide is an 8-hour average of 9ppm.

Ozone (photochemical oxidants)

Figure 8. Ambient concentrations of ozone at Memorial Park and West Rockhampton sites. Daily maximum 8-hour average concentrations (ppm), December 2025.

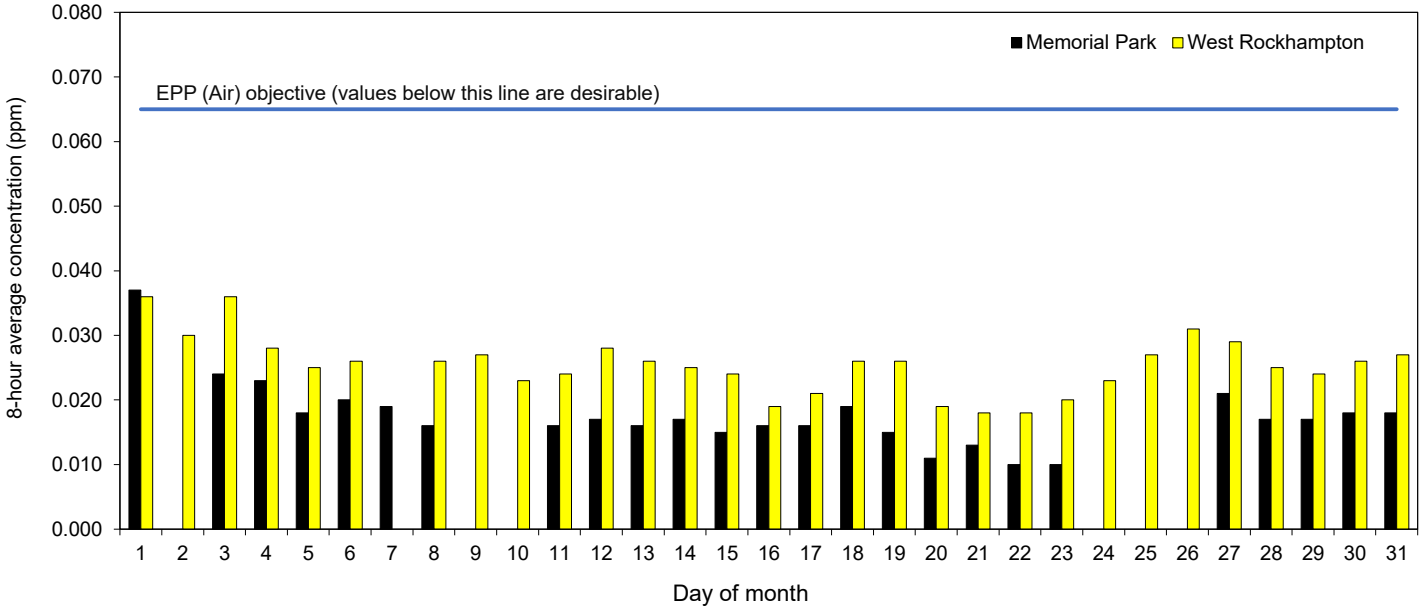


Table 7. Ambient concentrations of ozone. Monthly maximum 8-hour average concentrations (ppm), January 2025 to December 2025.

Site	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Gladstone region												
Memorial Park												
Maximum 8-hour	0.030	0.037	0.027	0.030	0.023	0.025	0.029	0.033	0.035	0.037	0.038	0.037
% I.A.	99	99	95	96	99	99	96	98	99	99	73	88
Rockhampton												
West Rockhampton†												
Maximum 8-hour	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	-	0.050	0.050	0.036
% I.A.	0	0	0	0	0	0	0	0	43	100	99	99

% I.A. indicates instrument availability. - indicates less than three-fifths of the data are available. n.d. indicates no data are available.

† Ozone monitoring commenced at West Rockhampton in September 2025.

The EPP (AIr) air quality objective for ozone is an 8-hour average of 0.065ppm.

Benzene

Figure 9. Ambient concentrations of benzene at Memorial Park site. Daily 24-hour average concentrations (ppb), December 2025.

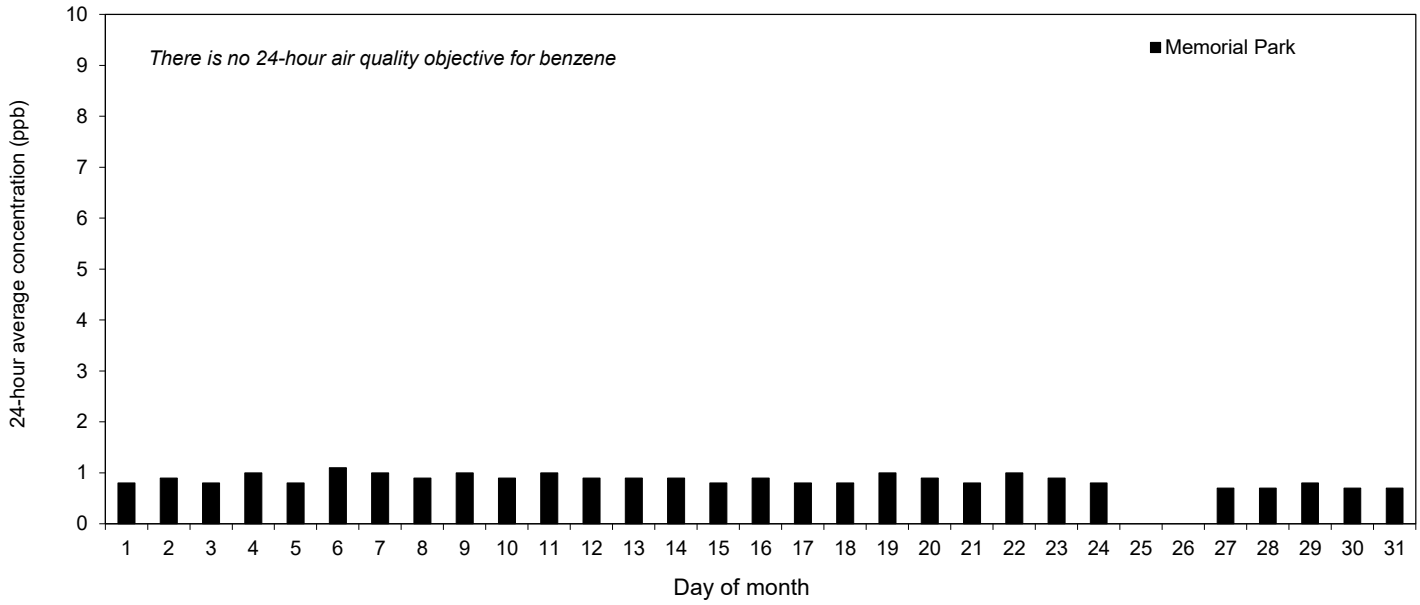


Table 8. Ambient concentrations of benzene. Annual average and monthly maximum 24-hour concentrations (ppb), January 2025 to December 2025.

Site	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Gladstone region												
Memorial Park												
Annual average: 0.9												
Maximum 24-hour	1.2	1.2	1.3	1.2	1.2	1.3	1.1	1.1	1.1	1.1	1.3	1.1
% I.A.	97	98	94	94	96	97	91	93	93	95	75	93

% I.A. indicates instrument availability. - indicates less than three-fifths of the data are available. n.d. indicates no data are available.

The EPP (AIr) air quality objective for benzene is an annual average of 0.002ppm (2ppb).

Toluene

Figure 10. Ambient concentrations of toluene at Memorial Park site. Daily 24-hour average concentrations (ppb), December 2025.

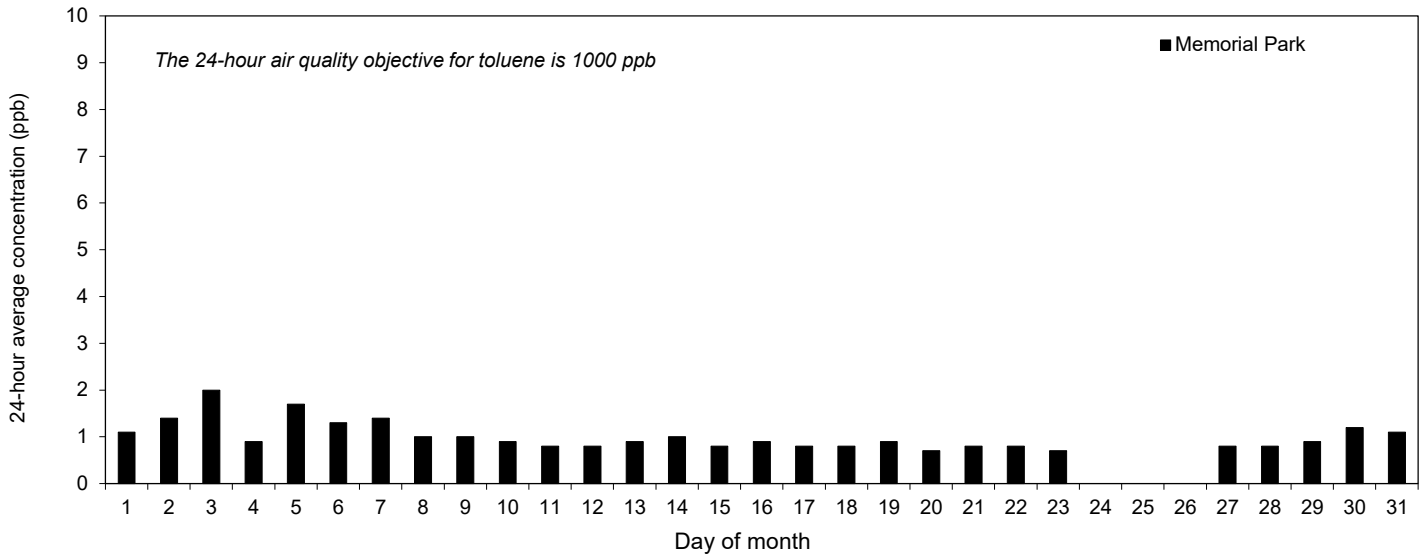


Table 9. Ambient concentrations of toluene. Annual average and monthly maximum 24-hour concentrations (ppb), January 2025 to December 2025.

Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Gladstone region													
Memorial Park													
Annual average:	1.3												
Maximum 24-hour		1.4	1.5	1.5	3.4	2.3	5.0	3.0	3.5	2.5	3.2	2.1	2.0
% I.A.		100	100	100	97	98	99	95	97	97	98	64	93

% I.A. indicates instrument availability. - indicates less than three-fifths of the data are available. n.d. indicates no data are available.

The EPP (AIr) air quality objectives for toluene are an annual average of 0.1ppm (100ppb) and a 24-hour average of 1ppm (1000ppb).

Total xylenes

Figure 11. Ambient concentrations of total xylenes at Memorial Park site. Daily 24-hour average concentrations (ppb), December 2025.

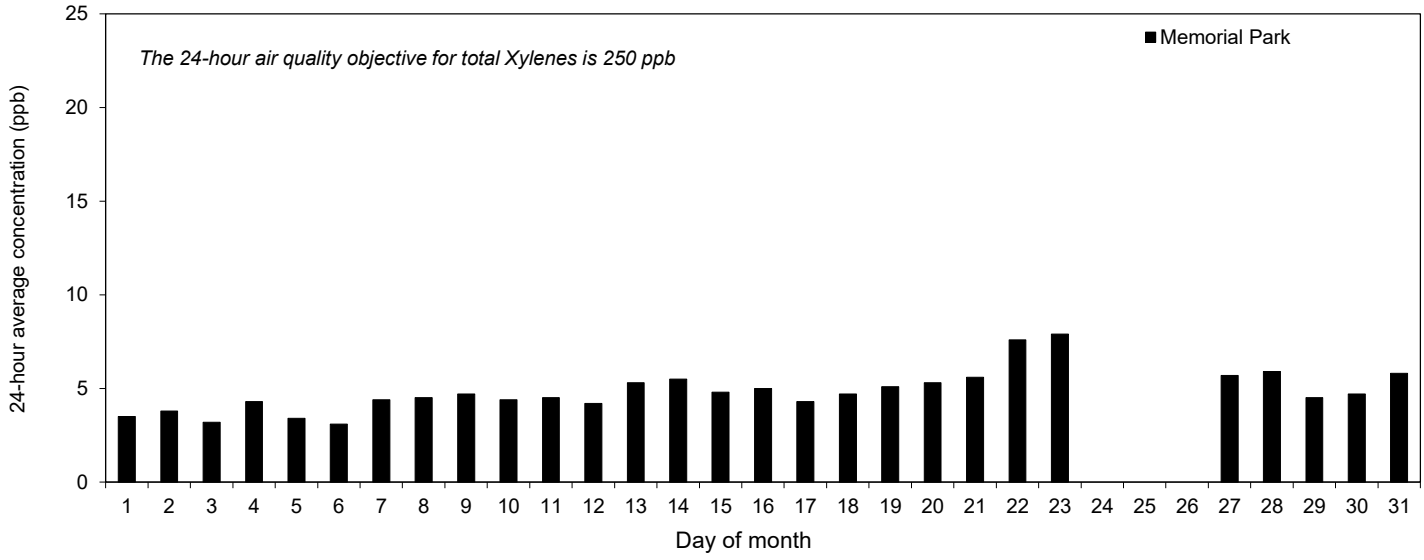


Table 10. Ambient concentrations of total xylenes. Annual average and monthly maximum 24-hour concentrations (ppb), January 2025 to December 2025.

Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Gladstone region													
Memorial Park													
Annual average:	5.1												
Maximum 24-hour		6.1	6.2	6.2	6.0	5.9	6.0	6.2	6.3	6.3	6.5	6.5	7.9
% I.A.		98	99	95	98	98	99	95	97	97	98	71	88

% I.A. indicates instrument availability. - indicates less than three-fifths of the data are available. n.d. indicates no data are available.

The EPP (AIr) air quality objectives for total xylenes are an annual average of 0.2 ppm (200 ppb) and a 24-hour average of 0.25 ppm (250 ppb).

Formaldehyde

Figure 12. Ambient concentrations of formaldehyde at Memorial Park site. Daily 24-hour average concentrations (ppb), December 2025.

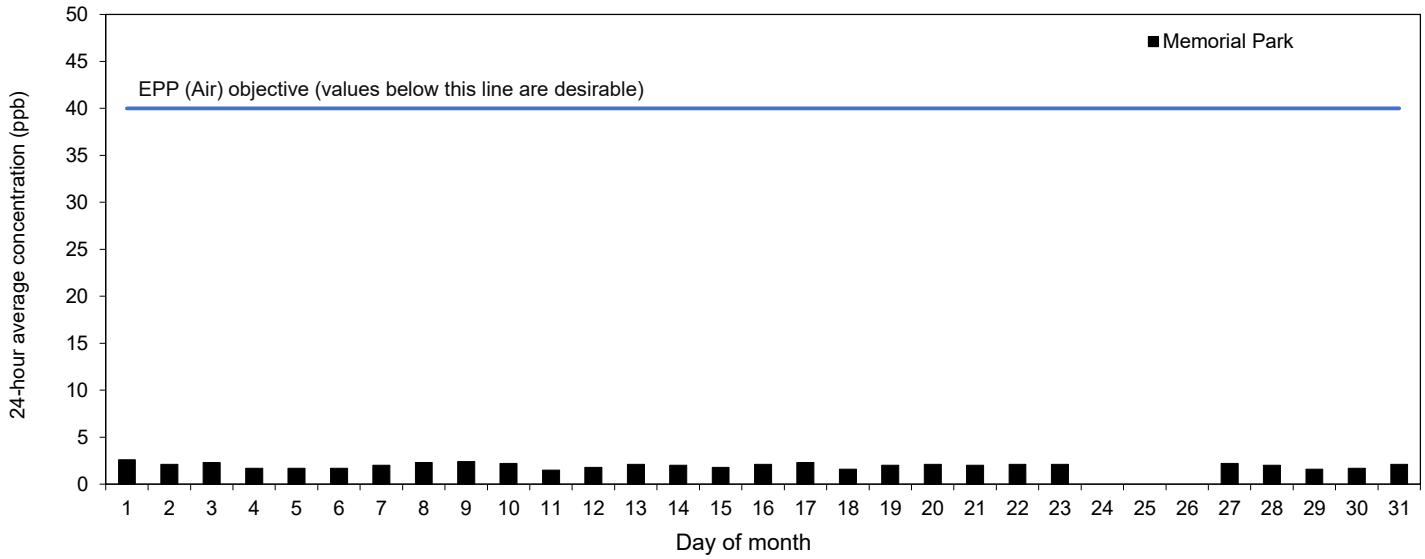


Table 11. Ambient concentrations of formaldehyde. Monthly maximum 24-hour concentrations (ppb), January 2025 to December 2025.

Site	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Gladstone region												
Memorial Park												
Maximum 24-hour	3.0	2.3	2.6	3.6	2.6	2.8	2.4	2.6	2.5	3.8	3.3	2.6
% I.A.	96	97	91	92	95	97	91	97	98	98	75	90

% I.A. indicates instrument availability. - indicates less than three-fifths of the data are available. n.d. indicates no data are available.

The EPP (AIr) air quality objective for formaldehyde is a 24-hour average of 0.04ppm (40ppb).

PM_{10}

Figure 13. Ambient concentrations of PM_{10} at Targinie, Boat Creek and Clinton sites. Daily 24-hour average concentrations (µg/m^3), December 2025.

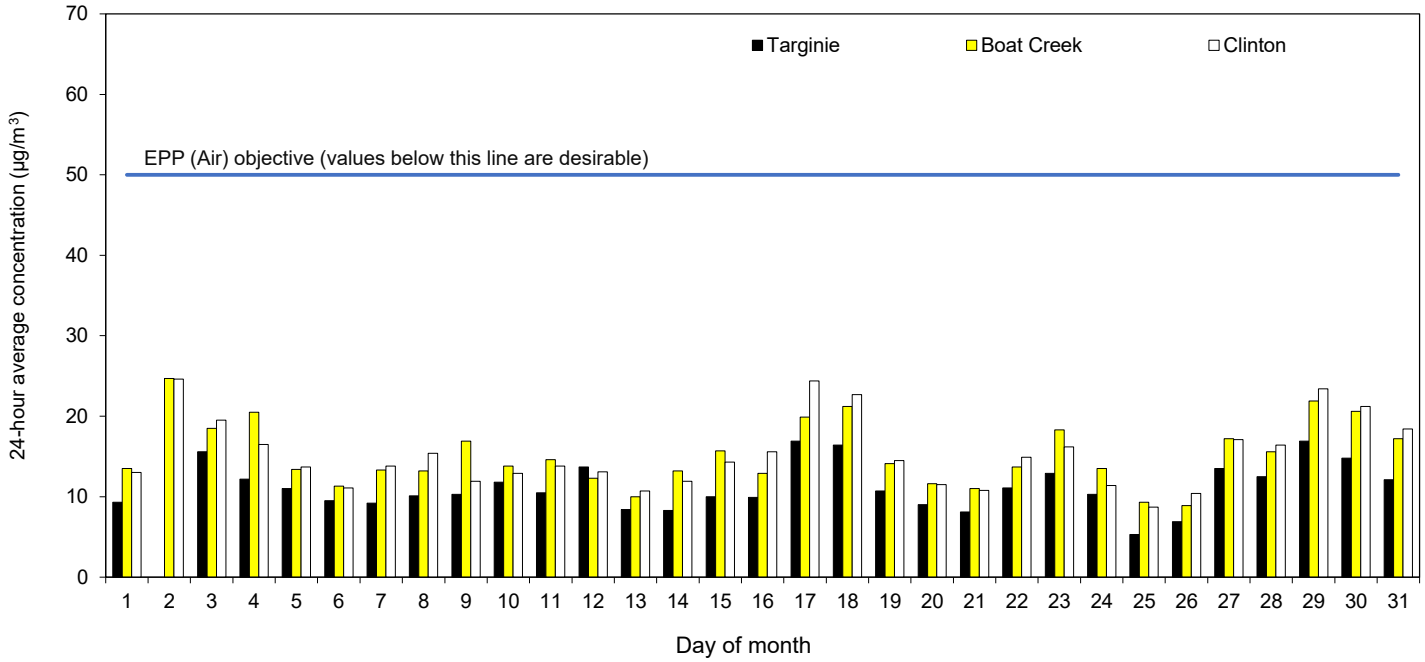


Figure 14. Ambient concentrations of PM_{10} at Auckland Point, South Gladstone, Boyne Island and West Rockhampton sites. Daily 24-hour average concentrations (µg/m^3), December 2025.

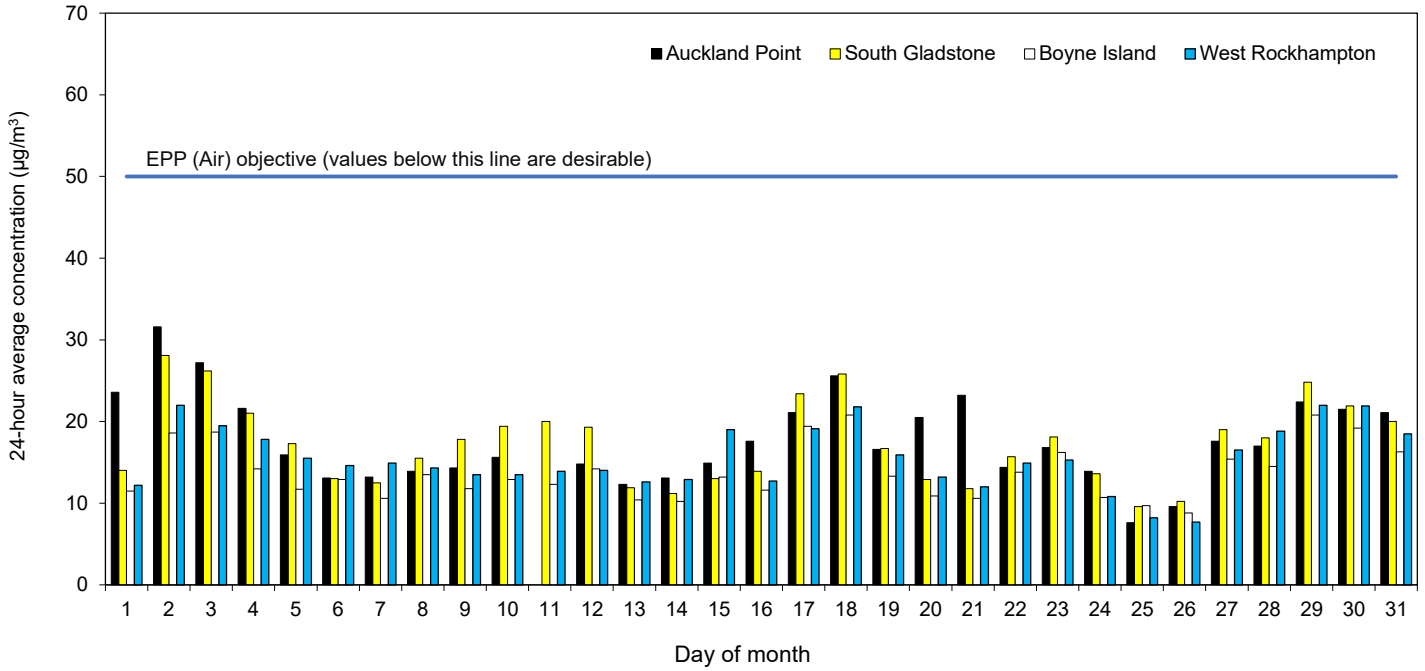


Table 12. Ambient concentrations of PM_{10}. Annual average and monthly maximum 24-hour concentrations ($\mu g/m^3$), January 2025 to December 2025.

Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Gladstone region													
Targinie													
Annual average:	12.6												
Maximum 24-hour		26.1	31.1	20.3	25.8	20.8	19.6	15.5	20.3	13.4	44.0	17.9	16.9
% I.A.		99	100	100	99	100	100	100	100	100	100	100	98
Boat Creek													
Annual average:	15.1												
Maximum 24-hour		28.1	29.0	21.6	39.4	24.7	18.0	25.5	25.8	21.5	45.0	26.4	24.7
% I.A.		99	100	93	100	100	98	75	100	99	99	100	100
Clinton													
Annual average:	14.3												
Maximum 24-hour		23.3	24.3	17.9	48.7	21.3	22.3	16.5	32.1	23.3	47.2	26.0	24.6
% I.A.		100	99	100	99	100	99	100	99	100	100	100	100
Auckland Point													
Annual average:	16.0												
Maximum 24-hour		n.d.	n.d.	n.d.	-	24.1	24.2	20.4	27.6	24.0	36.5	29.5	31.6
% I.A.		0	0	0	2	74	100	99	100	99	100	99	99
South Gladstone													
Annual average:	16.0												
Maximum 24-hour		39.1	43.3	29.8	92.2	32.8	26.9	16.7	29.8	24.7	42.1	27.1	28.1
% I.A.		100	100	100	100	100	99	100	100	100	100	99	100
Boyne Island													
Annual average:	13.2												
Maximum 24-hour		24.8	25.1	16.8	73.8	18.8	20.7	13.9	42.1	20.9	33.5	22.2	20.8
% I.A.		98	100	100	99	100	99	100	100	100	100	100	100
Rockhampton													
West Rockhampton[†]													
Annual average:	-												
Maximum 24-hour		n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	-	60.4	25.9	22.0
% I.A.		0	0	0	0	0	0	0	0	45	100	100	100

% I.A. indicates instrument availability. - indicates less than three-fifths of the data are available. n.d. indicates no data are available.

[†] PM_{10} monitoring commenced at West Rockhampton in September 2025.

The EPP (AIr) air quality objectives for PM_{10} are an annual average of $25\mu g/m^3$ and a 24-hour average of $50\mu g/m^3$.

$PM_{2.5}$

Figure 15. Ambient concentrations of $PM_{2.5}$ at Targinie, Boat Creek and Clinton sites. Daily 24-hour average concentrations (µg/m^3), December 2025.

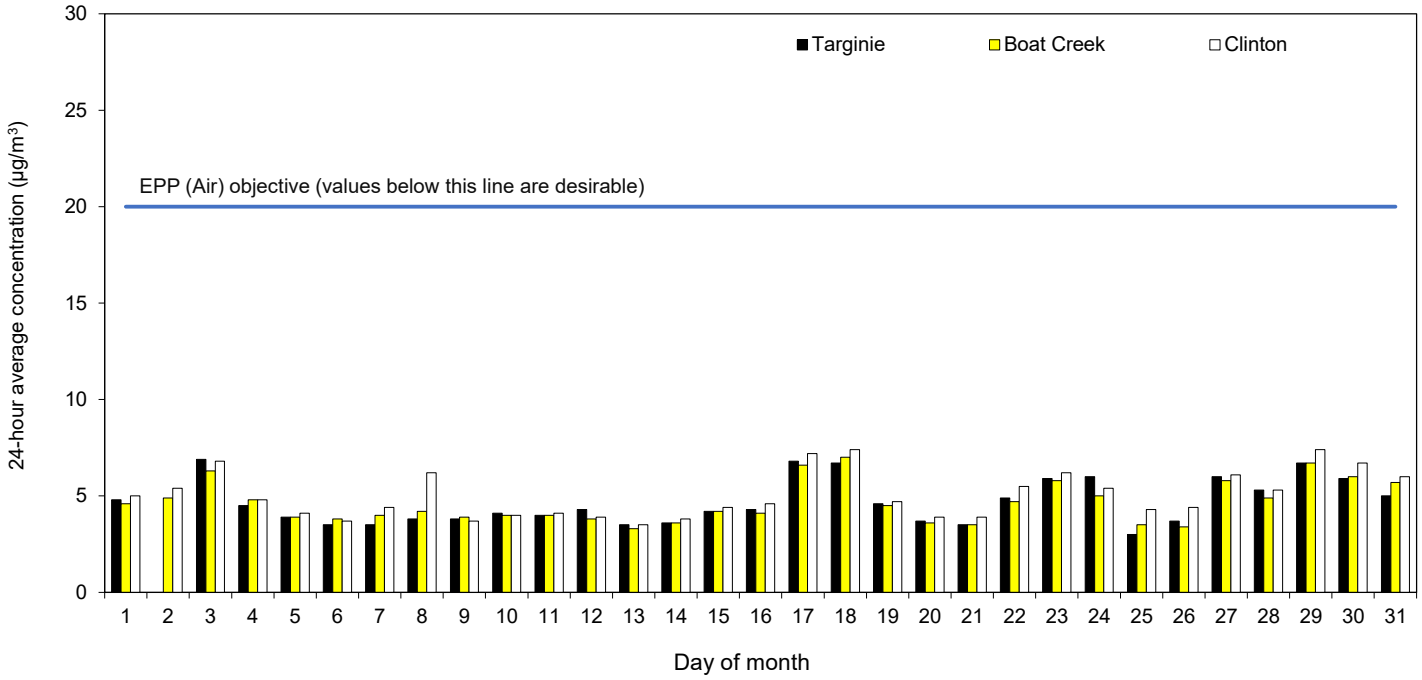


Figure 16. Ambient concentrations of $PM_{2.5}$ at South Gladstone, Boyne Island and West Rockhampton sites. Daily 24-hour average concentrations (µg/m^3), December 2025.

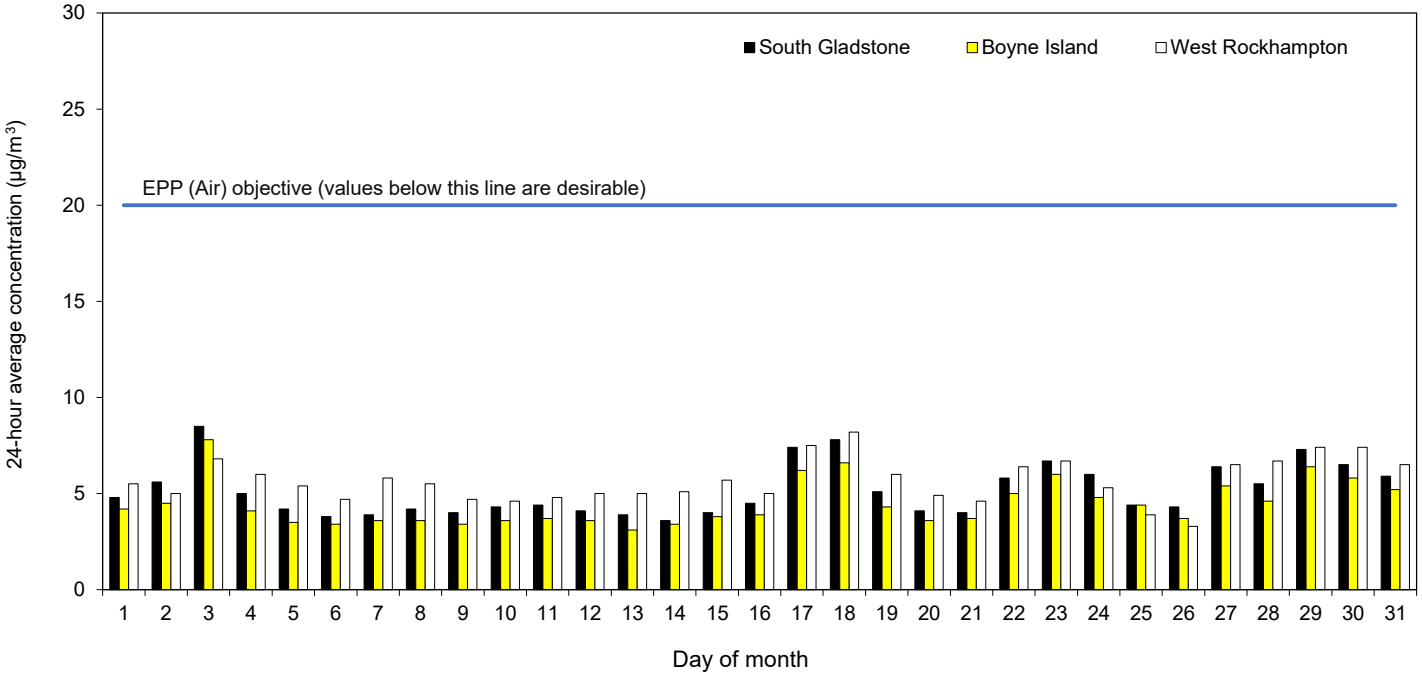


Table 13. Ambient concentrations of $PM_{2.5}$. Annual average and monthly maximum 24-hour concentrations (µg/m^3), January 2025 to December 2025.

Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Gladstone region													
Targinie													
Annual average:	5.0												
Maximum 24-hour		8.9	10.1	7.1	18.7	9.0	8.8	5.7	8.3	8.0	35.9	9.0	6.9
% I.A.		99	100	100	99	100	100	100	100	100	100	100	98
Boat Creek													
Annual average:	5.2												
Maximum 24-hour		9.1	9.7	7.2	32.5	8.5	8.4	21.0	14.6	9.0	31.2	9.7	7.0
% I.A.		99	100	93	100	100	98	75	100	99	99	100	100
Clinton													
Annual average:	5.5												
Maximum 24-hour		7.8	8.3	5.8	40.0	10.7	12.1	12.2	22.3	9.9	34.5	11.6	7.4
% I.A.		100	99	100	99	100	99	100	99	100	100	100	100
South Gladstone													
Annual average:	5.3												
Maximum 24-hour		8.1	9.3	6.7	65.0	10.4	15.6	5.6	16.7	8.0	31.6	10.6	8.5
% I.A.		100	100	100	100	100	99	100	100	100	100	99	100
Boyne Island													
Annual average:	4.9												
Maximum 24-hour		7.7	8.1	5.6	65.9	9.9	11.1	5.5	31.3	7.3	25.2	9.4	7.8
% I.A.		98	100	100	99	100	99	100	100	100	100	100	100
Rockhampton													
West Rockhampton[†]													
Annual average:	-												
Maximum 24-hour		n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	-	49.5	14.2	8.2
% I.A.		0	0	0	0	0	0	0	0	45	100	100	100

% I.A. indicates instrument availability. - indicates less than three-fifths of the data are available. n.d. indicates no data are available.

[†] $PM_{2.5}$ monitoring commenced at West Rockhampton in September 2025.

The EPP (Air) air quality objectives for $PM_{2.5}$ are an annual average of 7µg/m^3 and a 24-hour average of 20µg/m^3.

Visibility-reducing particles

Figure 17. Ambient concentrations of visibility-reducing particle levels at Targinie, Boat Creek and Clinton sites. Daily maximum 1-hour average light scattering coefficient (Bsp) values (Mm^{-1}), December 2025.

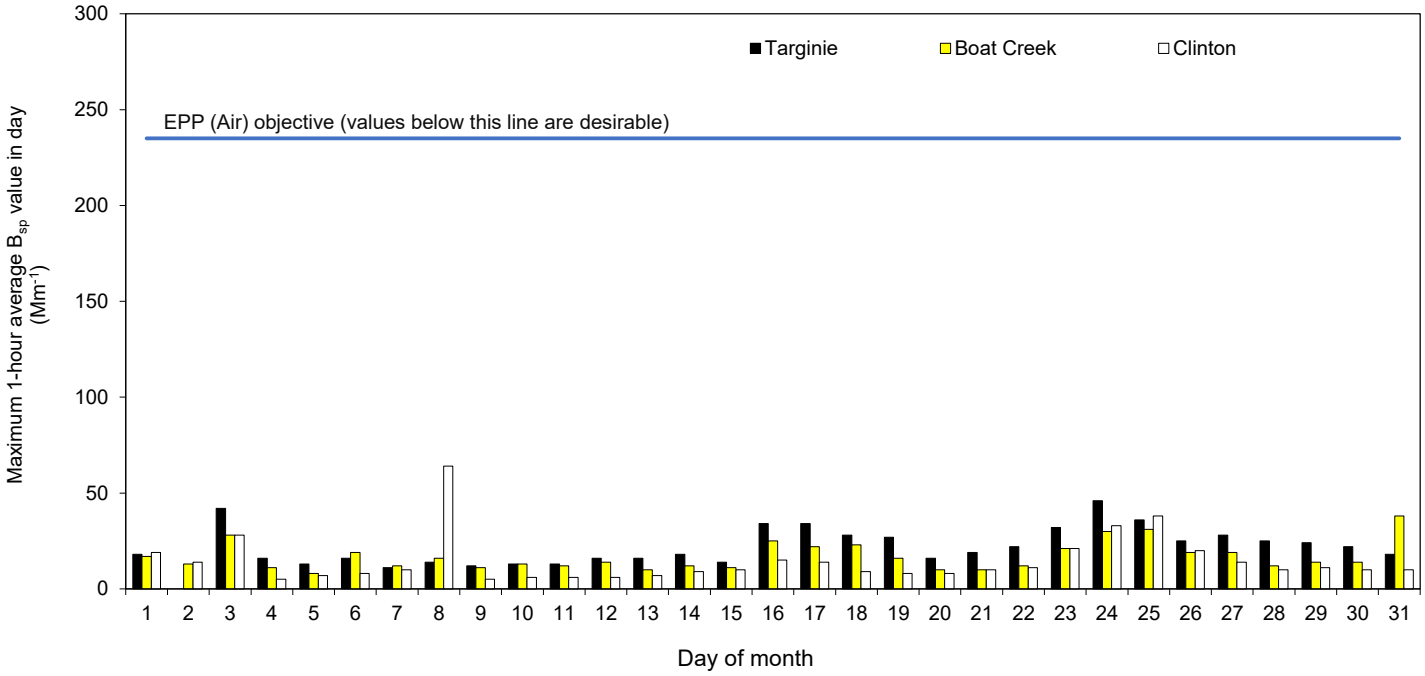


Figure 18. Ambient concentrations of visibility-reducing particle levels at South Gladstone, Boyne Island and West Rockhampton sites. Daily maximum 1-hour average light scattering coefficient (Bsp) values (Mm^{-1}), December 2025.

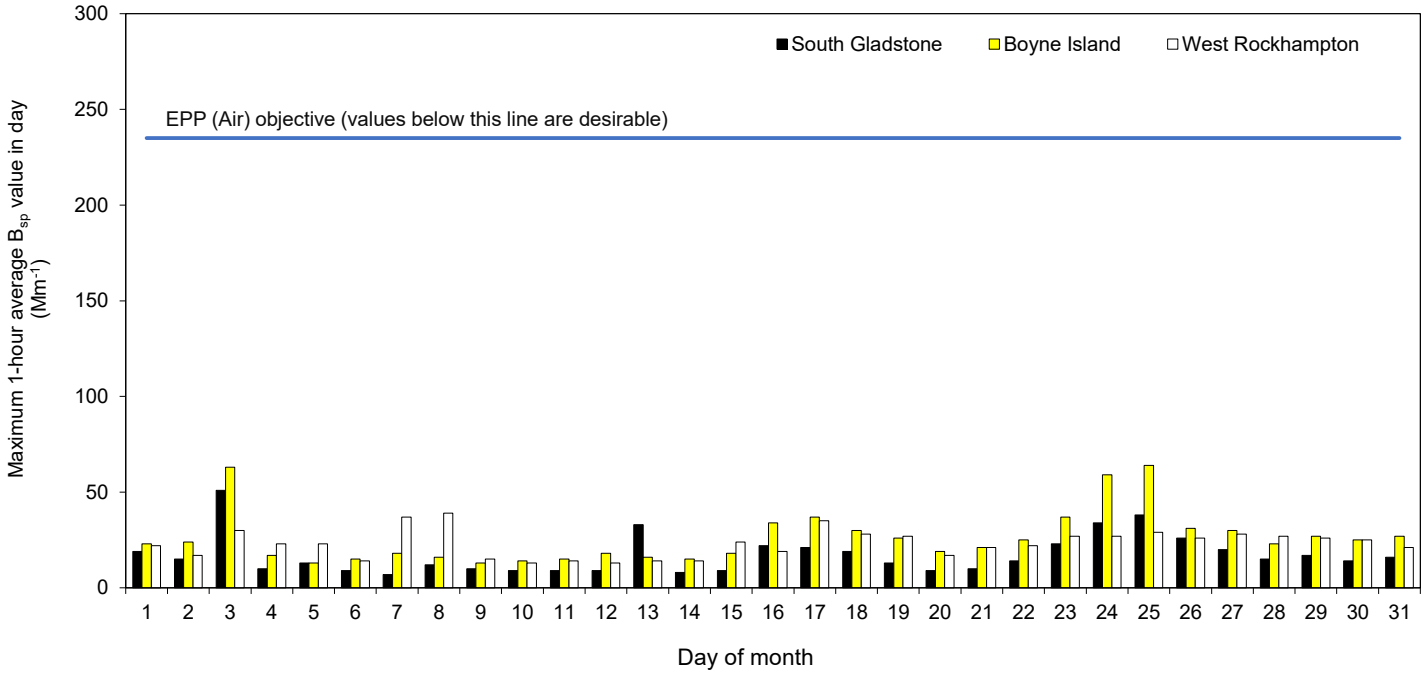


Table 14. Ambient visibility-reducing particle levels. Monthly maximum 1-hour average light scattering coefficient (Bsp) values (Mm^{-1}), January 2025 to December 2025.

Site	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Gladstone region												
Targinie												
Maximum 1-hour	38	33	n.d.	n.d.	-	146	98	95	78	589	55	46
% I.A.	100	62	0	0	37	100	100	100	100	100	100	98
Boat Creek												
Maximum 1-hour	36	30	34	416	68	176	428	135	158	328	130	38
% I.A.	99	100	99	100	100	98	75	100	99	99	100	100
Clinton												
Maximum 1-hour	54	24	36	302	73	223	219	259	156	336	55	64
% I.A.	99	99	100	99	100	99	100	99	100	100	100	100
South Gladstone												
Maximum 1-hour	53	36	33	959	76	247	54	235	38	344	51	51
% I.A.	99	100	100	100	100	99	100	100	100	100	99	100
Boyne Island												
Maximum 1-hour	48	79	37	907	154	262	227	542	172	355	83	64
% I.A.	98	100	100	99	100	99	100	100	100	99	99	100
Rockhampton												
West Rockhampton†												
Maximum 1-hour	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	-	711	153	39
% I.A.	0	0	0	0	0	0	0	0	45	100	100	99

% I.A. indicates instrument availability. - indicates less than three-fifths of the data are available. n.d. indicates no data are available.

† Visibility-reducing particle monitoring commenced at West Rockhampton in September 2025.

The EPP (AIr) air quality objective for visibility-reducing particles is 20km visibility. This equates to light scattering coefficient values of $235Mm^{-1}$ or less.

Measured ambient concentrations - Mackay, Moranbah, Emerald, Blackwater and Bluff

PM_{10}

Figure 19. Ambient concentrations of PM_{10} at West Mackay, Moranbah (East) and Moranbah (West) sites. Daily 24-hour average concentrations ($\mu g/m^3$), December 2025.

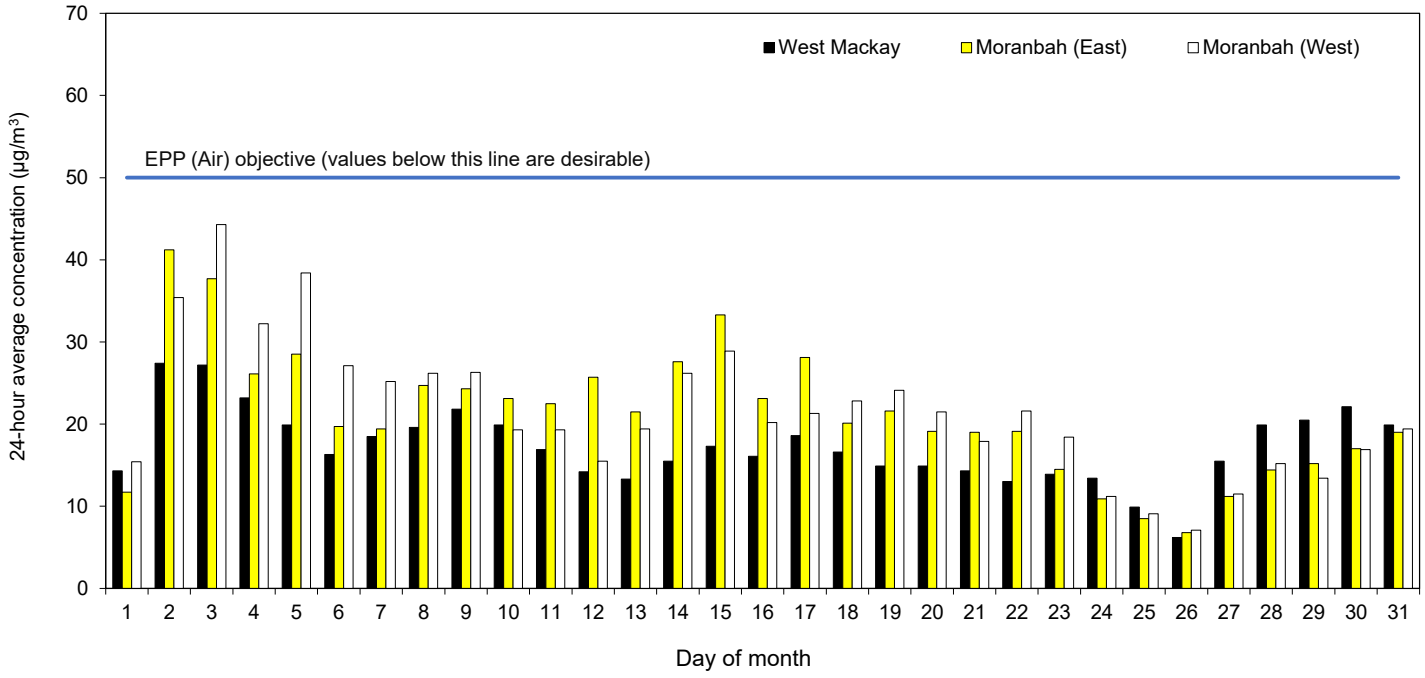


Figure 20. Ambient concentrations of PM_{10} at Emerald, Blackwater and Bluff sites. Daily 24-hour average concentrations (µg/m^3), December 2025.

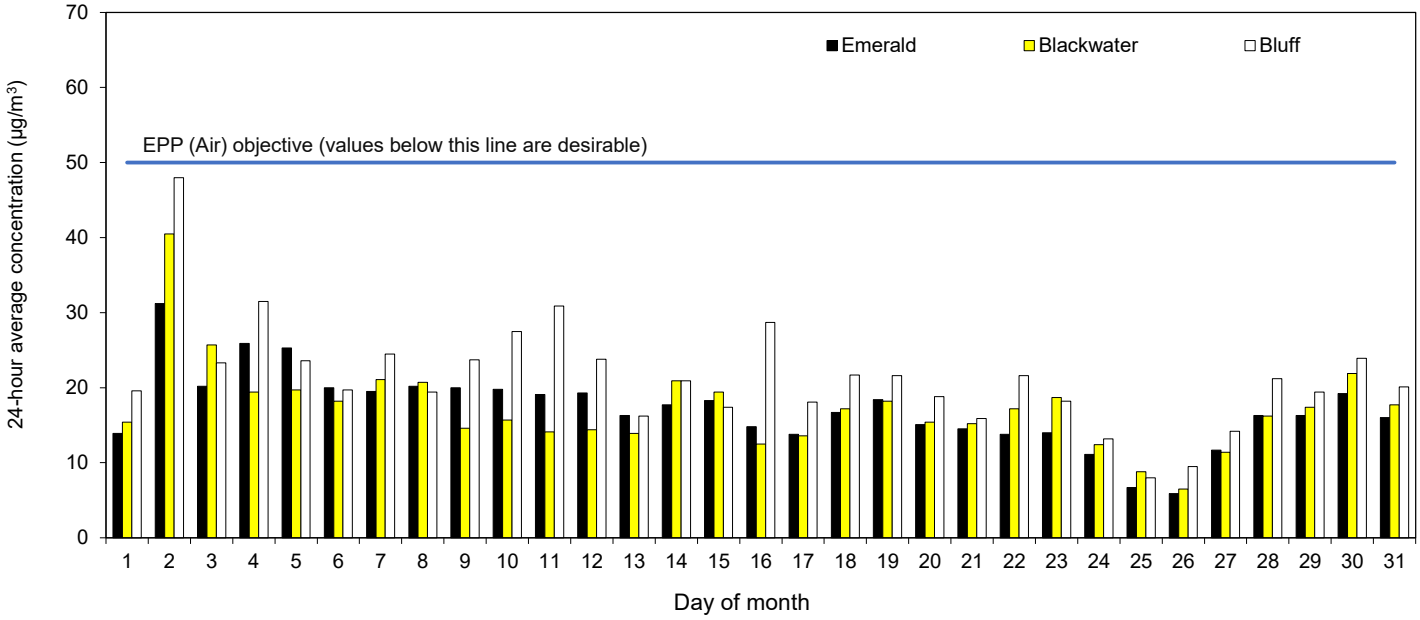


Table 15. Ambient concentrations of PM_{10}. Annual average and monthly maximum 24-hour and 1-hour average concentrations (µg/m^3), January 2025 to December 2025.

Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mackay													
West Mackay													
Annual average:	17.9												
Maximum 24-hour		23.5	26.9	21.7	28.6	29.3	23.0	23.2	29.7	42.0	53.5	36.1	27.4
% I.A.		99	98	100	100	100	100	100	100	98	100	99	99
Inland Central Queensland													
Moranbah (East)													
Annual average:	19.6												
Maximum 24-hour		39.0	20.8	29.6	29.4	38.0	31.1	33.8	42.3	49.2	62.2	34.1	41.2
% I.A.		100	100	100	100	100	100	100	99	100	100	99	100
Moranbah (West)													
Annual average:	25.6												
Maximum 24-hour		51.0	32.2	46.9	41.9	42.7	46.0	39.8	49.7	73.5	123.7	35.2	44.3
% I.A.		100	100	68	100	100	100	100	100	99	100	100	100
Emerald													
Annual average:	16.1												
Maximum 24-hour		21.5	24.5	21.5	24.0	34.4	19.7	22.7	28.2	53.7	76.7	28.1	31.2
% I.A.		100	100	92	100	100	100	100	100	100	100	99	100
Blackwater													
Annual average:	16.6												
Maximum 24-hour		20.9	20.3	46.7	22.9	20.2	-	32.9	37.0	40.8	48.0	33.1	40.5
% I.A.		97	100	100	100	86	15	99	100	100	100	99	100
Bluff													
Annual average:	19.5												
Maximum 24-hour		41.9	31.3	43.7	n.d.	48.7	31.0	38.5	-	n.d.	-	45.1	48.0
% I.A.		87	100	98	0	82	98	99	2	0	27	98	98

% I.A. indicates instrument availability. - indicates less than three-fifths of the data are available. n.d. indicates no data are available.

The EPP (AIr) air quality objectives for PM_{10} are an annual average of 25µg/m^3 and a 24-hour average of 50µg/m^3.

$PM_{2.5}$

Figure 21. Ambient concentrations of $PM_{2.5}$ at West Mackay, Moranbah (East) and Moranbah (West) sites. Daily 24-hour average concentrations (µg/m^3), December 2025.

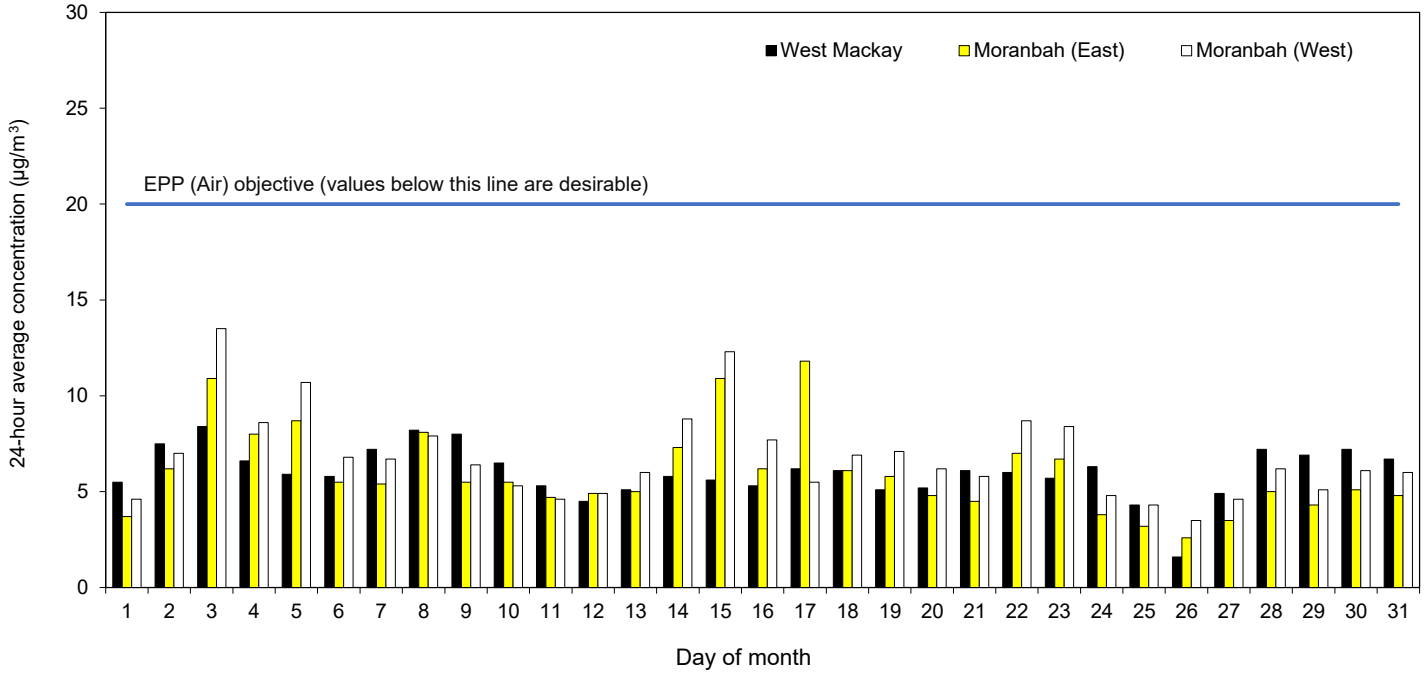


Figure 22. Ambient concentrations of $PM_{2.5}$ at Emerald and Blackwater sites. Daily 24-hour average concentrations (µg/m^3), December 2025.

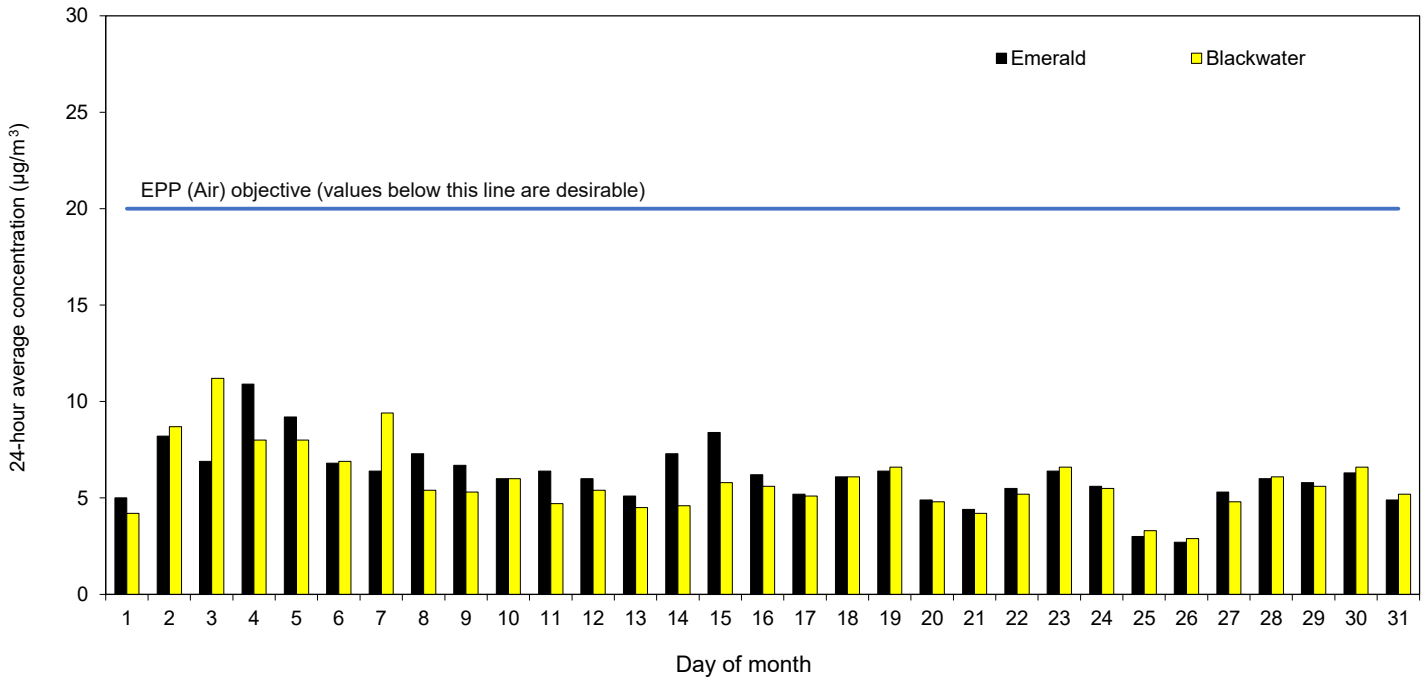


Table 16. Ambient concentrations of $PM_{2.5}$. Annual average and monthly maximum 24-hour concentrations (µg/m^3), January 2025 to December 2025.

Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mackay													
West Mackay													
Annual average:	6.6												
Maximum 24-hour		9.2	9.1	8.6	15.8	8.4	10.0	10.4	13.7	23.8	33.4	14.5	8.4
% I.A.		99	98	100	100	100	100	100	100	98	100	99	99
Inland Central Queensland													
Moranbah (East)													
Annual average:	5.3												
Maximum 24-hour		9.2	5.6	6.5	10.7	6.7	5.4	6.5	8.0	17.5	21.8	10.8	11.8
% I.A.		100	100	100	100	100	100	100	99	100	100	99	100
Moranbah (West)													
Annual average:	6.7												
Maximum 24-hour		10.1	7.5	8.8	11.6	8.9	6.7	8.8	10.9	18.3	31.6	12.6	13.5
% I.A.		100	100	68	100	100	100	100	100	99	100	100	100
Emerald													
Annual average:	5.9												
Maximum 24-hour		6.4	8.0	5.9	6.1	25.0	8.7	6.1	11.5	36.1	58.2	14.0	10.9
% I.A.		100	100	92	100	100	100	100	100	100	100	99	100
Blackwater													
Annual average:	5.6												
Maximum 24-hour		8.9	6.9	13.0	4.6	5.4	-	5.2	7.7	31.4	32.2	20.5	11.2
% I.A.		97	100	100	100	86	15	99	100	100	100	99	100

% I.A. indicates instrument availability. - indicates less than three-fifths of the data are available. n.d. indicates no data are available.

The EPP (AIr) air quality objectives for $PM_{2.5}$ are an annual average of 7µg/m^3 and a 24-hour average of 20µg/m^3.

Visibility-reducing particles

Figure 23. Ambient concentrations of visibility-reducing particle levels at West Mackay site. Daily maximum 1-hour average light scattering coefficient (Bsp) values (Mm^{-1}), December 2025.

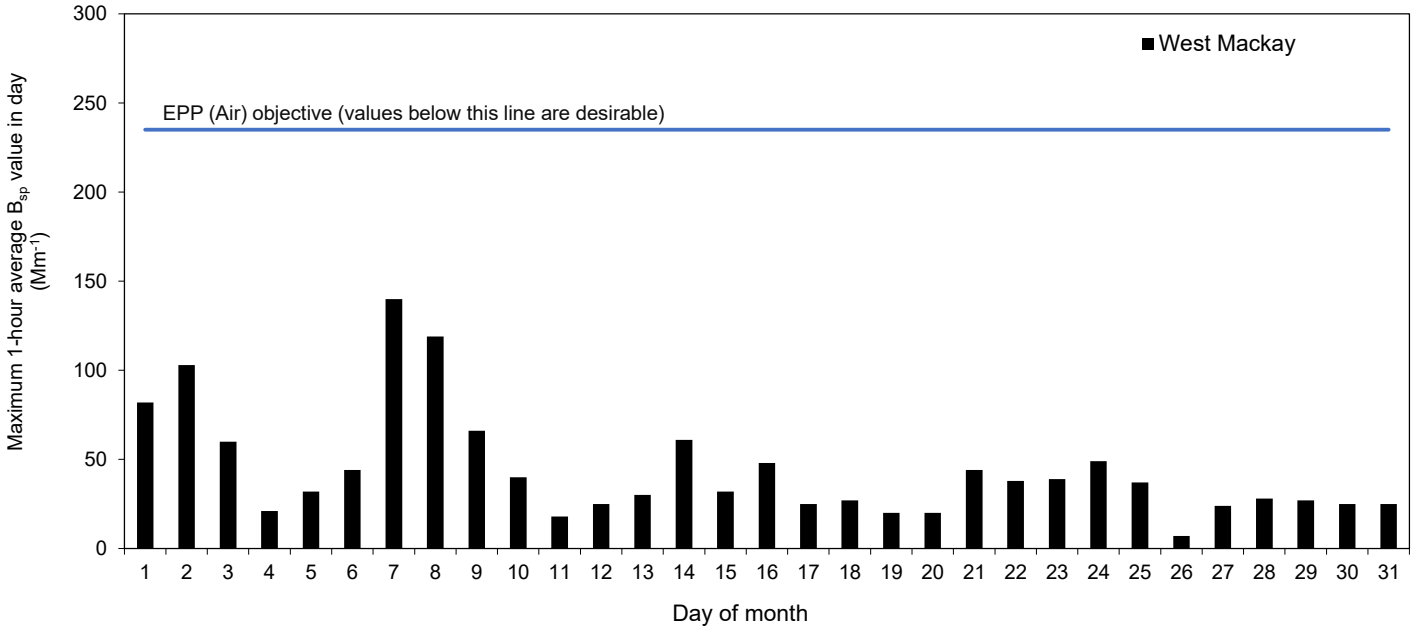


Table 17. Ambient visibility-reducing particle levels. Monthly maximum 1-hour average light scattering coefficient (Bsp) values (Mm^{-1}), January 2025 to December 2025.

Site	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mackay												
West Mackay												
Maximum 1-hour	33	45	35	181	77	141	237	125	209	484	181	140
% I.A.	99	98	100	99	100	100	100	100	87	100	99	99

% I.A. indicates instrument availability. - indicates less than three-fifths of the data are available. n.d. indicates no data are available.

The EPP (AIr) air quality objective for visibility-reducing particles is 20km visibility. This equates to light scattering coefficient values of $235Mm^{-1}$ or less.

Data availability

When required, Table 18 summarises the reasons for data availability below the minimum criteria for reporting at Central Queensland monitoring sites.

Table 18. Reasons for low data availability at Central Queensland ambient air monitoring sites during December 2025.

Station	Air Pollutant	Cause
Nil		

Related air quality information

Current hourly air quality data is available online at https://apps.des.qld.gov.au/air-quality/.

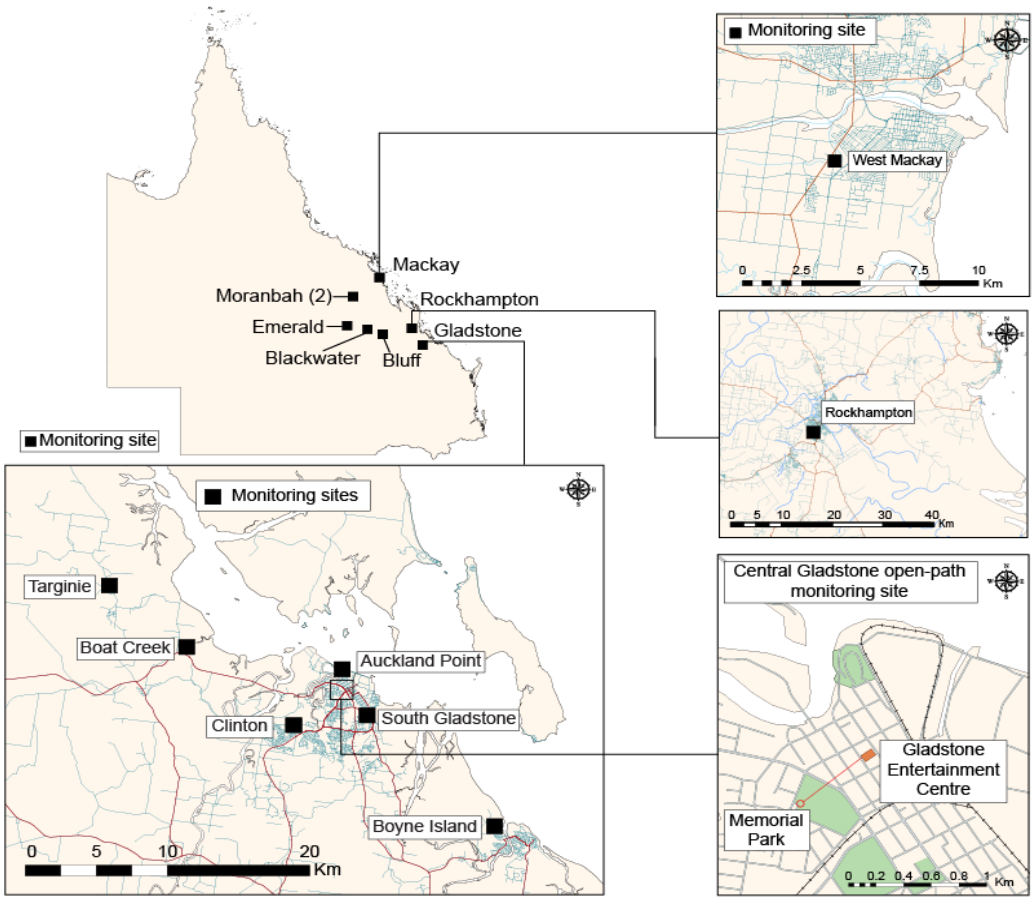
Additional information on air quality monitoring and related issues is also available from the above website.

Further information

For further information about the data presented in this bulletin or related publications, contact:

Air Quality Monitoring
Coastal and Air Unit
Science Division
Department of the Environment, Tourism, Science and Innovation
Ecosciences Precinct
41 Boggo Rd
DUTTON PARK QLD 4102
Telephone (07) 3170 5477
Email: air.sciences@detsi.qld.gov.au

Figure 24. Central Queensland ambient air quality monitoring station locations.



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