Murray and Sunraysia – Algae Alert Status

30 May 2025

This Blue-green algal (BGA) alert report is based on routine monitoring at sites in the Murray & Sunraysia Algae Reporting Area. The sites are monitored by WaterNSW and local water authorities. Satellite imagery may be used to supplement the monitoring data.

Table 1 shows the following red and amber, blue-green algal alerts:

Murray River
The Murray River at Merbein is on Red alert for blue-green algae.

The Murray River at Murray Downs, Euston, Mount Dispersion, Buronga, Curlwaa, Fort Courage and Lake Victoria outlet regulator are on **Amber** alert for blue-green algae.

Billabong Creek, Edward River & Wakool River
The Wakool River at the Wakool-Barham Road crossing, Stoney Crossing and Kyalite are on **Amber** alert for blue-green algae.

Menindee Lakes and lower Darling River
Lake Menindee and the lake Menindee outlet regulator are on Red alert for blue-green algae.

Lakes Tandure, Copi Hollow and Cawndilla outlet regulator are on **Amber** alert for blue-green algae. The Great Darling Anabranch at the Silver City Highway crossing is on **Amber** alert for blue-green algae.

Some satellite images are shown on page 4 of this report.

Blue-green algal outlook over the next seven days
In the upper reaches of the catchment near Albury will be mostly partly cloudy with some showers expected on Tuesday and Thursday. Some morning frost is expected on Sunday. Maximum day air temperatures will be between 15 °C and 18 °C with minimum temperatures ranging from 1 °C to 5 °C (Source -BOM 7-day weather forecast). These weather conditions are likely to create less favourable circumstances for blue-green algal growth.

At Menindee, sunny conditions are forecast for today and tomorrow followed by partly cloudy conditions for the remaining days. Some showers can be expected on Monday. Maximum day air temperatures are expected to be between 19 °C and 23 °C with minimum temperatures ranging from 3 °C to 9 °C. These environmental conditions are expected to create less favourable circumstances for blue-green algal growth.

Table 1: Combined Murray and Sunraysia Alerts

Site	Description	Latest Sample Date	Cyanobacteria Total Count (cells/mL)	Cyanobacteria Biovolume (mm3/L)	Potentially Toxic Cyanobacterial Count (cells/mL)	Potentially Toxic Cyanobacterial Biovolume (mm3/L)	Current Status (based on Latest Sample)	Previous Status	Cyanobacteria dominant potentially toxic taxa	Cyanobacteria Comments
MURRAY RIVER SYSTEM										
	Corryong Supply - Raw Water Inlet to Corryong TP (NE Water)	5/05/2025	450	0.002	0	0.000	No Alert	No Alert		
	Manus Lake (SVC) Lake pontoon	5/05/2025	413	0.023	0	0.000	No Alert	GREEN		
DLH003	Lake Hume, Ebden	19/05/2025	47,448	0.297	9,526	0.266	GREEN	GREEN	*Microcystis sp.*	Potentially toxic, taste & odour
DLH001	Lake Hume, Heywoods Bay nr Bethanga	19/05/2025	72,558	0.125	1,633	0.045	GREEN	AMBER	*Microcystis sp.*	Potentially toxic, taste & odour
DLH002	Lake Hume, Hume Dam Resort	19/05/2025	44,235	0.351	7,857	0.307	GREEN	AMBER	*Microcystis sp.*	Potentially toxic, taste & odour
DLH004	Lake Hume, Dam Wall	19/05/2025	88,304	0.229	4,328	0.121	GREEN	GREEN	*Microcystis sp.*	Potentially toxic, taste & odour
N1000	Murray R. Union Bridge Albury	6/05/2025	100,952	0.246	5,410	0.131	GREEN	GREEN	*Microcystis sp.*	Potentially toxic, taste & odour
N1001	Murray R. Corowa	6/05/2025	62,807	0.117	2,382	0.057	GREEN	GREEN	*Microcystis sp.*	Potentially toxic, taste & odour
	Yarrawonga Weir (outlet) GMW	6/05/2025	53,900	0.282	0	0.000	GREEN	AMBER		
N1008	Mulwala Canal Offtake	6/05/2025	42,241	0.151	1,048	0.025	GREEN	GREEN	*Microcystis sp.*	Potentially toxic, taste & odour
N1007	Murray R. @ below Yarrawonga	6/05/2025	71,823	0.170	2,654	0.079	GREEN	AMBER	*Radiocystis sp.*	Potentially toxic
N1051	Murray R. Cobram (Barooga)	6/05/2025	48,245	0.077	0	0.000	GREEN	GREEN		
	Cobram WTP, raw water (GVW)	20/05/2025	22,902	0.178	136	0.009	GREEN	GREEN	*Aphanizomenonaceae family – straight*	
N1013	Murray R. Tocumwal	6/05/2025	53,592	0.080	272	0.006	GREEN	GREEN	*Microcystis sp.*	Potentially toxic, taste & odour
N1052	Murray R. Picnic Point	5/05/2025	73,150	0.085	204	0.004	GREEN	GREEN	*Microcystis sp.*	Potentially toxic, taste & odour
	Barmah WTP raw water (GVW)	20/05/2025	35,576	0.755	1094	0.073	AMBER	AMBER	*Microcystis sp*	
N1050	Murray R. Moama (Echuca)	5/05/2025	26,588	0.064	136	0.003	GREEN	GREEN	*Microcystis sp.*	Potentially toxic, taste & odour
	Torrumbarry Weir GMW	5/05/2025	31,968	0.231	0.000	0.000	GREEN	AMBER		
N1003	Murray R. Barham (Koondrook)	6/05/2025	40,956	0.229	0	0.000	GREEN	AMBER		
N1054	Murray R. Murray Downs (Swan Hill)	6/05/2025	28,506	0.596	136	0.003	AMBER	No Alert	*Microcystis sp.*	Potentially toxic, taste & odour
	Murray River U/S Woorinen pumps GMW	5/05/2025	235,850	1.245	0	0.000	AMBER	AMBER		
N1055	Murray R. Tooleybuc (Piangil)	6/05/2025	20,226	0.051	476	0.011	GREEN	GREEN	*Microcystis sp.*	Potentially toxic, taste & odour
N1064	Lake Benanee Rec Area	7/05/2025	114,073	0.163	0	0.000	GREEN	GREEN		
N1028	Murray R. Euston (Robinvale)	6/05/2025	49,891	1.994	898	0.021	AMBER	GREEN	*Microcystis sp.*	Potentially toxic, taste & odour
N1065	Murray R. Mount Dispersion	7/05/2025	57,611	6.980	3,262	0.285	AMBER	GREEN	*Umezakia ovalisporum*	Potentially toxic, taste & odour
N1062	Murray R. Buronga	20/05/2025	56,095	1.818	1,835	0.216	AMBER	AMBER	*Aphanizomenonaceae sp.*	Potentially toxic, taste & odour
N1027	414206 - Murray River at Merbein	20/05/2025	121,596	17.098	0	0.000	RED	AMBER		
N1063	Murray R. Curlwaa	20/05/2025	51,083	1.404	2,549	0.258	AMBER	AMBER	*Aphanizomenonaceae sp.*	Potentially toxic, taste & odour
N1066	Murray R. Fort Courage	20/05/2025	260,590	1.514	2,738	0.152	AMBER	AMBER	*Microcystis sp.*	Potentially toxic, taste & odour
N1077	Murray R. Lock 8	5/05/2025	162,153	0.174	0	0.000	GREEN	AMBER		
N1078	Lake Victoria Outlet Regulator	20/05/2025	227,013	4.442	24,388	1.346	AMBER	AMBER	*Raphidiopsis raciborskii*	Potentially toxic, taste & odour

Table 1: Continued

BILLBONG CREEK, EDWARD & WAKOOL RIVERS										
N1020	Billabong Ck. Walbundrie	6/05/2025	14,017	0.024	0	0.000	No Alert	No Alert		
N1015	Billabong Ck. Jerilderie	5/05/2025	1,286	0.001	0	0.000	No Alert	No Alert		
N1006	Gulpa Ck. Mathoura	5/05/2025	30,763	0.061	959	0.023	GREEN	GREEN	*Microcystis sp.*	Potentially toxic, taste & odour
N1002	Edward R Deniliquin	5/05/2025	22,560	0.096	3,092	0.074	GREEN	AMBER	*Microcystis sp.*	Potentially toxic, taste & odour
N1053	Edward R. Old Morago	6/05/2025	16,014	0.061	0	0.000	GREEN	GREEN		
N1005	Edward R. Moulamein	6/05/2025	32,413	0.120	425	0.030	GREEN	GREEN	*Aphanizomenonaceae sp.*	Potentially toxic, taste & odour
N1010	Wakool R. Wakool-Barham Road	20/05/2025	40,773	4.188	0	0.000	AMBER	AMBER		
N1004	Wakool R. @ Stoney Crossing	20/05/2025	116,571	1.898	0	0.000	AMBER	AMBER		
N1009	Wakool R. Kyalite	20/05/2025	50,606	1.187	2,245	0.080	AMBER	AMBER	*Raphidiopsis raciborskii*	Potentially toxic, taste & odour
MENINDEE LAKE SYSTEM & LOWER DARLING RIVER										
N1042	Darling River at Wilcannia	6/05/2025	0	0.000	0	0.000	No Alert	No Alert		
N1087	Lake Wetherell Site 1	22/04/2025	544	0.000	0	0.000	No Alert	No Alert		
N1088	Lake Wetherell Site 2	22/04/2025	0	0.000	0	0.000	No Alert	No Alert		
N1089	Lake Wetherell Site 3	22/04/2025	6,532	0.001	0	0.000	No Alert	GREEN		
N1090	Lake Wetherell Site 4	23/04/2025	7,622	0.030	0	0.000	No Alert	GREEN		
N1091	Lake Tandure Site 8	22/04/2025	10,295	0.004	0	0.000	AMBER	AMBER		
N1092	Lake Pamamaroo Inlet (Site 9)	22/04/2025	1,089	0.000	0	0.000	No Alert	GREEN		
N1093	Lake Pamamaroo Outlet (Site 10)	22/04/2025	0	0.000	0	0.000	No Alert	GREEN		
N1094	Menindee Lakes, Copi Hollow	22/04/2025	280,932	0.391	0	0.000	AMBER	AMBER		
N1130	Lake Menindee Site 19	10/03/2025	4,002,030	34.592	37,714	2.952	RED	AMBER	*Raphidiopsis raciborskii*	Potentially toxic, taste & odour
N1339	Lake Menindee outlet regulator	23/04/2025	7,850,382	18.722	204	0.025	RED	RED	*Anabaenopsis sp.*	Potentially toxic
N1128	Lake Cawndilla Site 34 Outlet	22/04/2025	3,024,382	7.047	8,618	0.457	AMBER	AMBER	*Raphidiopsis raciborskii*	Potentially toxic, taste & odour
N1095	Darling R. Menindee bhwb pump	23/04/2025	19,870	0.056	0	0.000	GREEN	GREEN		
N1085	Darling River at Menindee Town									
N1086	Darling R u/s Weir 32	23/04/2025	19,352	0.010	0	0.000	No Alert	AMBER		
N1043	Darling R. Tolarno	6/05/2025	0	0.000	0	0.000	No Alert	GREEN		
N1040	Darling R. Pooncarie	6/05/2025	14,034	0.016	0	0.000	No Alert	GREEN		
N1041	Darling R. Burtundy	6/05/2025	2,313	0.022	136	0.019	No Alert	AMBER	*Anabaenopsis sp.*	Potentially toxic
N1074	Darling R. Ellerslie	6/05/2025	31,301	0.025	0	0.000	No Alert	AMBER		
N1075	Darling R. Tapio	6/05/2025	108,468	0.183	85	0.012	GREEN	GREEN	*Anabaenopsis sp.*	Potentially toxic
GREAT DARLING ANABRANCH										
N1350	Silver City Hwy	20/05/2025	4,022,957	6.195	1,517	0.117	AMBER	AMBER	*Raphidiopsis raciborskii*	Potentially toxic, taste & odour

Satellite imagery

The key to the approximate total algae (blue green and non-blue green) concentrations using the Custom Algae Script can be found in Table 3. The actual values can potentially vary by a significant margin due to the geology of the waterbody, species of algae, turbidity, aquatic plants, time of day of the image capture, aerosols in the atmosphere, etc. This variability is a result of the nature of satellite imagery being a large-scale remote sensing format and is not function of the technology or the script itself. For this reason, these colours and descriptors are not the official ***"Algae Alert Level"*** *but rather provides information on the* ***potential risk on algae formation.***

Table 3: Observed risk levels based on the estimated photosynthetic activity for Custom Algae Script

Map Colour	Risk Level -	Starting concentration guide range	RACC recreational alert values approx. equivalence
Blue	Very low	<0.05 mm3/L	No Alert
Green	Low	0.05 to 0.5 mm3/L	Green
Yellow	Medium	0.5 to 5.0 mm3/L	Amber
Red	High	5.0 to 20.0 mm3/L	Red
Dark red	Extreme	> 20 mm3/L	Red

Observations about the satellite images

Figure 1 indicates that Hume Dam had mostly very low-level phytoplankton activity on 23/05/2025. The later image on 26/05/2025 shows extensive cloud cover.

The satellite image of the Menindee Lakes on 27/05/2025 (Figure 2) indicates that Lakes Tandure, Pamamaroo and Copi Hollow had very low phytoplankton activity. Lakes Menindee and Cawndilla had very low to low phytoplankton activity. Very low phytoplankton activity was noted at lake Wetherell sites 4 and 3 as well as the Weir 32 weir pool.

Figure 3 indicates that the Murray River near Wentworth had very low to low phytoplankton activity on 27/05/2025, while the anabranch had low to high phytoplankton activity. The Darling River branch had mostly very low phytoplankton activity.

Lake Victoria had very low to high phytoplankton activity on 30/05/2025 (Figure 4).

Figure 1: Hume Dam 23/05/2025 SentinelHub [CC BY-NC 4.0] NSW-Custom Algae Script - TF, WaterNSW.

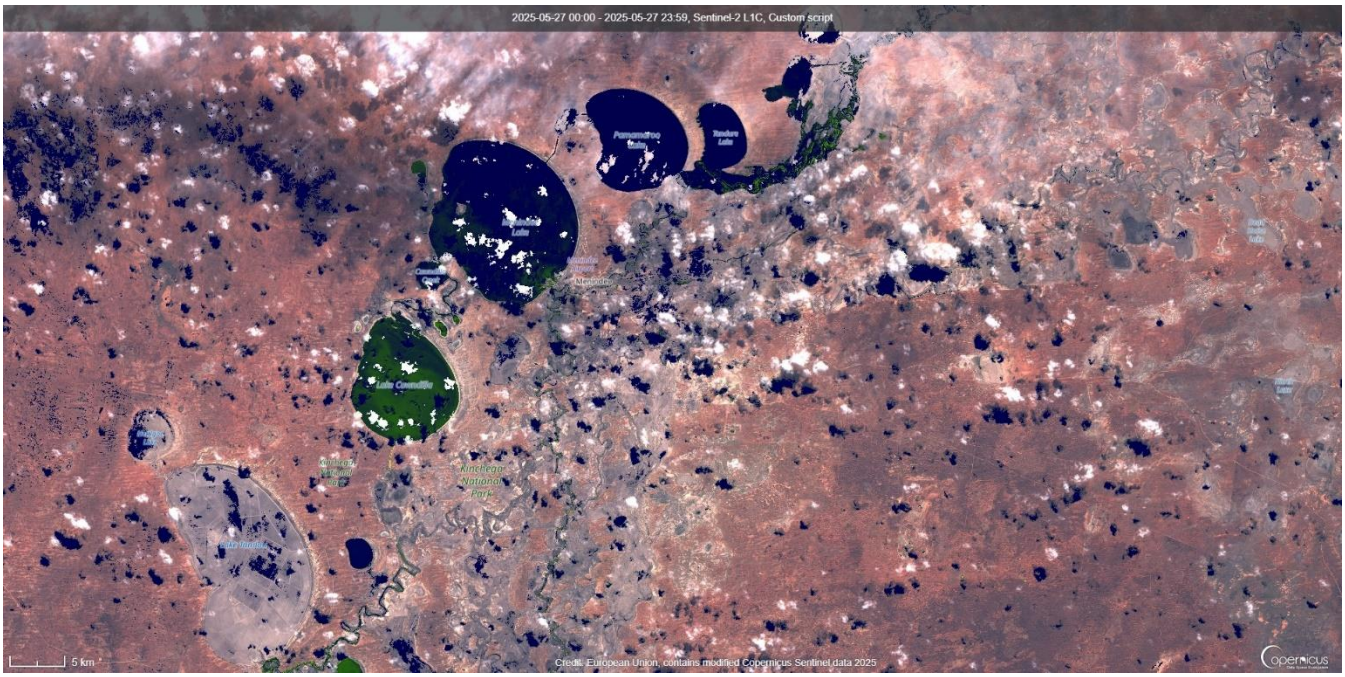

Figure 2: Menindee Lakes 27/05/2025 SentinelHub [CC BY-NC 4.0] NSW-Custom Algae Script - TF, WaterNSW.

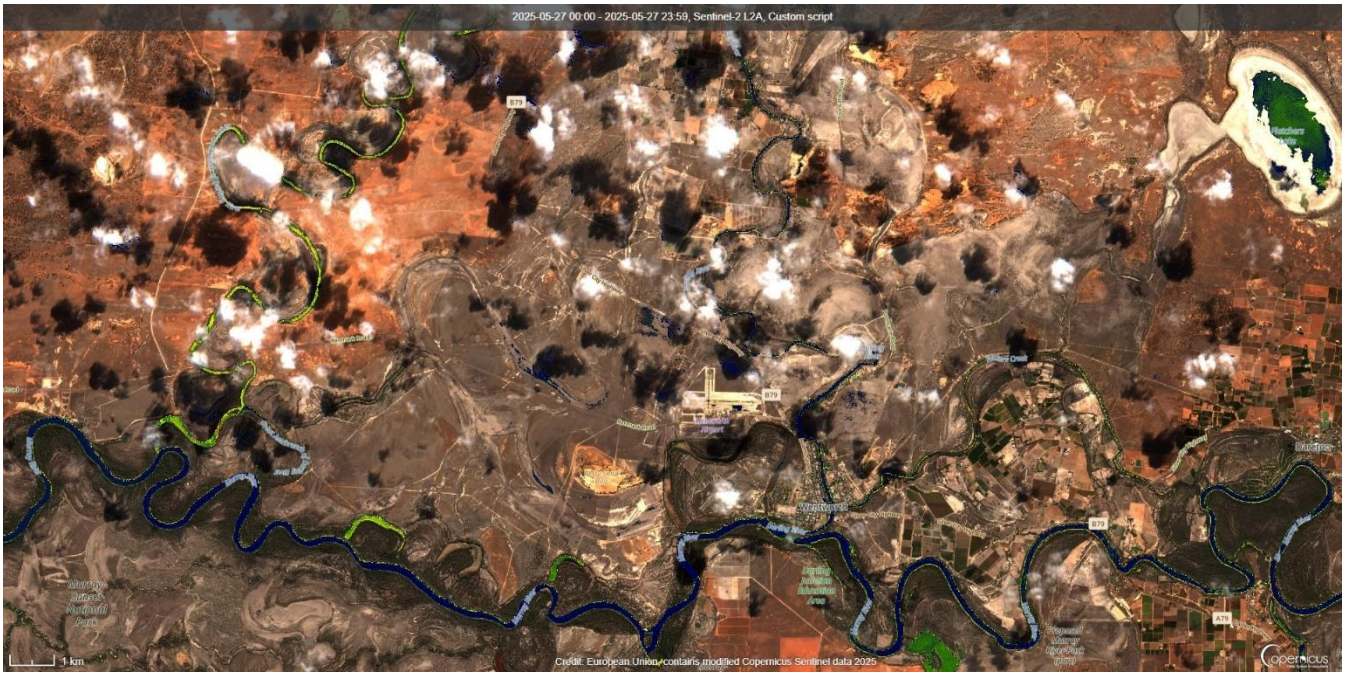

Figure 3: Murray River near Wentworth, Lower Darling River and Great Darling Anabranch 27/05/2025 SentinelHub [CC BY-NC 4.0] NSW-Custom Algae Script - TF, WaterNSW.

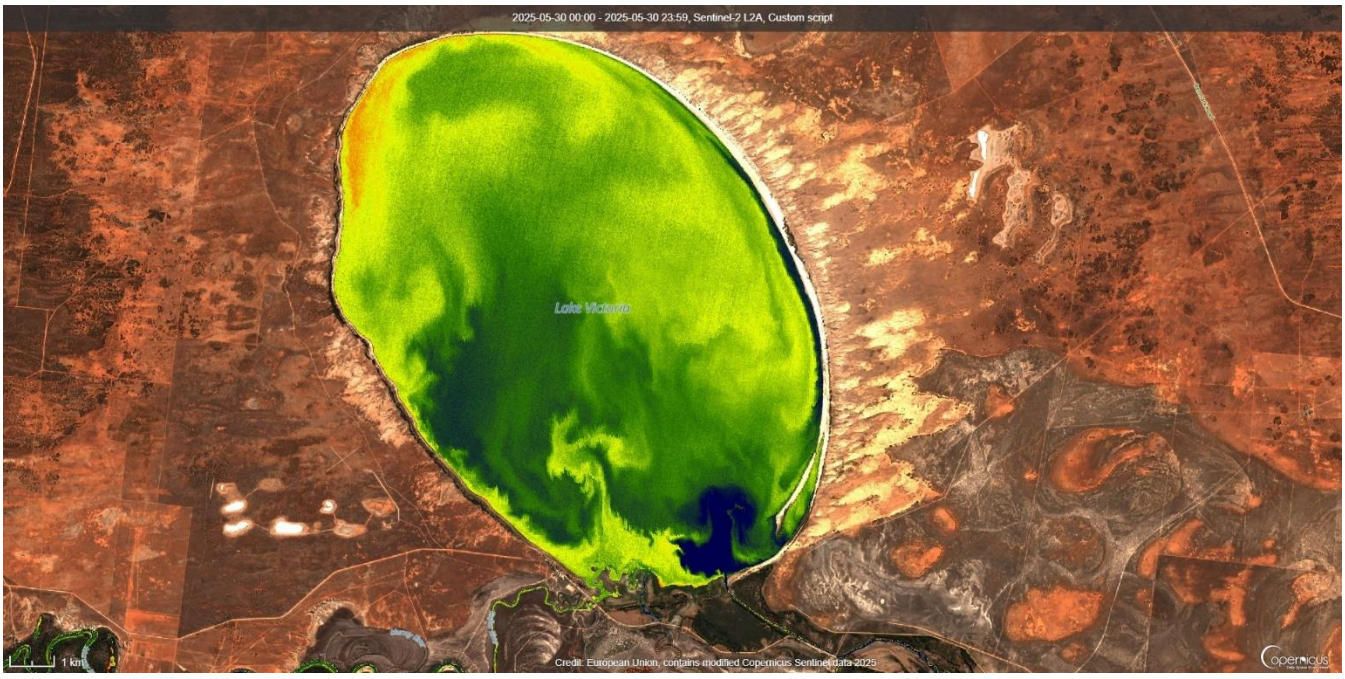

Figure 4: Lake Victoria 30/05/2025 SentinelHub [CC BY-NC 4.0] NSW-Custom Algae Script - TF, WaterNSW.

Alert Definitions for Recreational Waters

Alert Definitions as specified in The National Health and Medical Research Council (NHMRC) *Guidelines for Managing Risks in Recreational Water* 2008.

The interim use of these guidelines is endorsed by the Scientific Subcommittee of the NSW Algal Advisory Group.

RED ALERT

These alert levels represent 'bloom' conditions. Water will appear green or discoloured and clumps or scums could be visible. It can also give off a strong musty or organic odour.
Algae may be toxic to humans and animals. Contact with or use of water from red alert areas should be avoided due to the risk of eye and skin irritation. Drinking untreated or boiled water from these supplies can cause stomach upsets.
Alternative water supplies should be sought or activated carbon treatment employed to remove toxins. People should not fish when an algal scum is present. Owners should keep dogs away from high alert areas and provide alternative watering points for stock.

AMBER ALERT

Blue-green algae may be multiplying, and the water may have a green tinge and musty or organic taste and odour. The water should be considered as unsuitable for potable use and alternative supplies or prior treatment of raw water for domestic purposes should be considered. The water may also be unsuitable for stock watering. Generally suitable for water sports, however people are advised to exercise caution in these areas, as blue-green algal concentrations can rise to red alert levels quickly under warm, calm weather conditions.

GREEN ALERT

Blue-green algae occur naturally at low numbers. At these concentrations, algae would not normally be visible, however some species may affect taste and odour of water even at low numbers and does not pose any problems for recreational, stock or household use.

Key to Alerts for Recreational Waters

RED Alert ≥ 50 000 cells/mL toxic *M. aeruginosa* OR biovolume equivalent of ≥4 mm^3/L for the combined total of all cyanobacteria where a known toxin producer is dominant in the total biovolume OR The total biovolume of all cyanobacteria ≥10 mm^3/L OR Cyanobacterial scums are consistently present	• High levels of Blue Green Algae detected • Indicates "bloom" conditions • Toxicity should be presumed • Water will appear green or brownish and may have a strong musty taste and odour • Surface scums could occur • **Extreme care should be exercised, and contact with the water should be avoided** **Action** • Issue Media Release • Water supply authorities to increase filtering with activated carbon as appropriate • Local authority and health authorities to warn the public that the water body is unsuitable for primary contact recreation
AMBER Alert ≥5 000 to <50 000 cells/mL *M. aeruginosa* OR biovolume equivalent of ≥ 0.4 to < 4 mm^3/L for the combined total of all cyanobacteria where known toxin producers are dominant in the total biovolume OR ≥ 0.4 to < 10mm^3/L combined total for all blue-green algae where known toxin producers are not dominant	• Indicates blue-green algae are multiplying • Water may have a green tinge and musty taste and odour **Action** • Water supply authorities to consider filtering with activated carbon • Investigations into the causes of the elevated levels and increased sampling to enable the risks to recreational users to be more accurately assessed.
GREEN Alert > 500 to < 5 000 cells/mL *M. aeruginosa* OR biovolume equivalent of > 0.04 to < 0.4 mm^3/L for the combined total of all cyanobacteria	• Low levels of potentially toxic species detected – suggesting base crop of blue green algae may be on the increase **Action** • Continue/increase routine sampling to measure cyanobacterial levels

Livestock Drinking Water Guidelines Based on ARMCANZ (2000), Orr and Schneider (2006) and WQRA (2010)

This guideline should be used when water is used for livestock drinking water purposes.

- If visual scums are present, then a High alert should be declared. This would be applicable for both farm dams and publicly managed water bodies (streams, rivers, etc). Such advice should also be given to farmers who phone the department seeking information on managing blooms in their dams.
- Where blooms dominated by ***Microcystis aeruginosa*** are present, then the ANZECC/ARMCANZ (2000) guideline of 11,500 cells/mL should be used. Excess of this cell count will constitute a High alert.
- Where blooms dominated by ***Dolichospermum circinale*** are present, then the Orr and Schneider (2006) guideline of 25,000 cells/mL should be used. Excess of this cell count will constitute a High alert.
- **Blooms of blue-green algae other** than *M. aeruginosa* and *D. circinale* are also common in NSW. These can be of either known potentially toxic species, or of species not considered to be toxin producers. When these blooms are present, a total blue-green algal biovolume in excess of 6 mm^3/L will constitute a High alert. (These are based on Very High alert recommendations for raw water sourced for potable human supply published by WQRA (2010), in lieu of there being nothing else available).

Further Information and Contacts

Links to websites of VIC and other agencies

Link to Snowy Valleys Council
Link to North East Water
Link to Goulburn-Murray Water blue-green algal alerts
Link to Goulburn Valley Water blue-green algal information
Link to Lower Murray Water blue-green algal alerts

NSW DPI blue-green-algae information for landholders

Go to the WaterNSW Algal Website

www.waternsw.com.au/algae **or at WaterInsights (links below):**
Murray regulated river - https://waterinsights.waternsw.com.au/11904-new-south-wales-murray-regulated-river/updates
Lower-Darling regulated river - https://waterinsights.waternsw.com.au/12104-lower-darling-regulated-river/updates

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