

# Murray and Sunraysia – Algae Alert Status

26 June 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

Lake Hume at Ebden and the Dam Wall are on **Amber** alert for blue-green algae. The Murray River at Union Bridge in Albury, Cobram, Moama, Barham, Euston, Mount Dispersion, Buronga, Merbein, Curlwaa, Fort Courage and Lake Victoria outlet regulator are on **Amber** alert for blue-green algae.

### Billabong Creek, Edward River & Wakool River

The Edward River at Moulamein, and the Wakool River at 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. The Great Darling Anabranche at the Silver City Highway crossing is also on **Red** alert for blue-green algae.

Lakes Tandure, Pamamaroo and Cawndilla at the outlet regulator are on **Amber** alert for blue-green algae.

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

### General Comments

The Great Darling Anabranche has ceased to flow along its entire length, and the Silver City Highway site currently on Red Alert is now part of a disconnected residual pool. These stagnant conditions likely contributed to the recently high concentrations of blue-green algae recorded at the site.

### Blue-green algal outlook over the next seven days

In the upper reaches of the catchment near Albury, partly cloudy and sunny days are expected. Maximum day air temperatures are forecast for 12 °C to 15 °C with minimum temperatures between -1 °C and 1 °C (Source -[BOM 7-day weather forecast](#)). These weather conditions are likely to create less favourable circumstances for blue-green algal growth.

At Menindee, partly cloudy days can be expected throughout the week. Maximum air temperatures are expected to be between 15 °C and 16 °C with minimum temperatures ranging from 0 °C to 2 °C. These environmental conditions are expected to create less favourable conditions for blue-green algal growth.

Table 1: Combined Murray and Sunraysia Alerts

Site	Description	Latest Sample Date	Cyanobacteria Total Count (cells/mL)	Cyanobacteria Biovolume (mm <sup>3</sup> /L)	Potentially Toxic Cyanobacterial Count (cells/mL)	Potentially Toxic Cyanobacterial Biovolume (mm <sup>3</sup> /L)	Current Status (based on Latest Sample)	Previous Status	Cyanobacteria dominant potentially toxic taxa	Cyanobacteria Comments
<b>MURRAY RIVER SYSTEM</b>										
	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	2/06/2025	0	0.000	0	0.000	No Alert	No Alert		
DLH003	Lake Hume, Ebden	16/06/2025	54,654	0.968	34,295	0.958	AMBER	GREEN	<i>Microcystis sp.</i>	Potentially toxic, taste & odour
DLH001	Lake Hume, Heywoods Bay nr Bethanga	16/06/2025	25,640	0.031	265	0.007	No Alert	GREEN	<i>Microcystis sp.</i>	Potentially toxic, taste & odour
DLH002	Lake Hume, Hume Dam Resort	16/06/2025	29,532	0.176	5,131	0.143	GREEN	GREEN	<i>Microcystis sp.</i>	Potentially toxic, taste & odour
DLH004	Lake Hume, Dam Wall	16/06/2025	51,646	0.477	16,378	0.457	AMBER	GREEN	<i>Microcystis sp.</i>	Potentially toxic, taste & odour
N1000	Murray R. Union Bridge Albury	4/06/2025	53,524	0.454	16,984	0.411	AMBER	GREEN	<i>Microcystis sp.</i>	Potentially toxic, taste & odour
N1001	Murray R. Corowa	4/06/2025	19,965	0.069	2,001	0.048	GREEN	GREEN	<i>Microcystis sp.</i>	Potentially toxic, taste & odour
	Yarrowonga Weir (outlet) GMW	2/06/2025	39,466	0.432	0	0.000	AMBER	GREEN		
N1008	Mulwala Canal Offtake	6/05/2025	42,241	0.151	1,048	0.025	GREEN	GREEN	<i>Microcystis sp.</i>	Potentially toxic, taste & odour
N1007	Murray R. @ below Yarrowonga	4/06/2025	38,487	0.069	817	0.019	GREEN	GREEN	<i>Microcystis sp.</i>	Potentially toxic, taste & odour
N1051	Murray R. Cobram (Barooga)	4/06/2025	56,342	0.428	3,009	0.166	AMBER	GREEN	<i>Microcystis sp.</i>	Potentially toxic, taste & odour
	Cobram WTP, raw water (GVW)	12/06/2025	19,536	0.131	418	0.030	GREEN	GREEN	<i>Microcystis sp.</i>	
N1013	Murray R. Tocumwal	4/06/2025	42,610	0.064	408	0.009	GREEN	GREEN	<i>Microcystis sp.</i>	Potentially toxic, taste & odour
N1052	Murray R. Picnic Point	2/06/2025	33,275	0.073	1,238	0.030	GREEN	GREEN	<i>Microcystis sp.</i>	Potentially toxic, taste & odour
	Barmah WTP raw water (GVW)	12/06/2025	18,162	0.142	498	0.034	GREEN	GREEN	<i>Aphanizomenonaceae family – straight</i>	
N1050	Murray R. Moama (Echuca)	2/06/2025	84,278	0.757	10,119	0.266	AMBER	GREEN	<i>Microcystis sp.</i>	Potentially toxic, taste & odour
	Torrumbarry Weir GMW	2/06/2025	18,142	1.723	0.000	0.000	AMBER	GREEN		
N1003	Murray R. Barham (Koondrook)	2/06/2025	18,645	0.458	170	0.020	AMBER	GREEN	<i>Aphanizomenonaceae sp.</i>	Potentially toxic, taste & odour
N1054	Murray R. Murray Downs (Swan Hill)	2/06/2025	28,715	0.041	0	0.000	GREEN	AMBER		
	Murray River U/S Woorinen pumps GMW	5/05/2025	235,850	1.245	0	0.000	AMBER	AMBER		
N1055	Murray R. Tooleybuc (Piangil)	2/06/2025	13,475	0.296	0	0.000	GREEN	GREEN		
N1064	Lake Benanee Rec Area	12/06/2025	120,524	0.176	0	0.000	GREEN	GREEN		
N1028	Murray R. Euston (Robinvale)	3/06/2025	43,080	5.711	0	0.000	AMBER	AMBER		
N1065	Murray R. Mount Dispersion	12/06/2025	45,019	5.778	0	0.000	AMBER	AMBER		
N1062	Murray R. Buronga	3/06/2025	28,153	3.545	6,973	0.440	AMBER	AMBER	<i>Umezakia ovalisporum</i>	Potentially toxic, taste & odour
	Merbein (LMW)	27/05/2025	33,444	5.526	8392	0.593	AMBER	GREEN	<i>Aphanizomenonaceae family – straight</i>	
N1027	414206 - Murray River at Merbein	10/06/2025	19,032	1.105	0	0.000	AMBER	RED		
N1063	Murray R. Curlwaa	2/06/2025	23,504	2.805	2,908	0.173	AMBER	AMBER	<i>Umezakia ovalisporum</i>	Potentially toxic, taste & odour
N1066	Murray R. Fort Courage	2/06/2025	254,547	1.026	85	0.012	AMBER	AMBER	<i>Anabaenopsis sp.</i>	Potentially toxic
N1077	Murray R. Lock 8	2/06/2025	150,643	0.246	255	0.030	GREEN	GREEN	<i>Aphanizomenonaceae sp.</i>	Potentially toxic, taste & odour
N1078	Lake Victoria Outlet Regulator	2/06/2025	524,174	3.713	5,444	0.301	AMBER	AMBER	<i>Raphidiopsis raciborskii</i>	Potentially toxic, taste & odour

Table 1: Continued

Site	Description	Latest Sample Date	Cyanobacteria Total Count (cells/mL)	Cyanobacteria Biovolume (mm <sup>3</sup> /L)	Potentially Toxic Cyanobacterial Count (cells/mL)	Potentially Toxic Cyanobacterial Biovolume (mm <sup>3</sup> /L)	Current Status (based on Latest Sample)	Previous Status	Cyanobacteria dominant potentially toxic taxa	Cyanobacteria Comments
<b>BILLBONG CREEK, EDWARD &amp; WAKOOL RIVERS</b>										
N1020	Billabong Ck. Walbundrie	4/06/2025	0	0.000	0	0.000	No Alert	No Alert		
N1015	Billabong Ck. Jerilderie	2/06/2025	2,858	0.001	0	0.000	No Alert	No Alert		
N1006	Gulpa Ck. Mathoura	2/06/2025	28,713	0.346	816	0.052	GREEN	GREEN	<i>Dolichospermum circinale</i>	Potentially toxic, taste & odour
N1002	Edward R Deniliquin	2/06/2025	11,688	0.121	0	0.000	GREEN	GREEN		
N1053	Edward R. Old Morago	2/06/2025	25,904	0.357	3,062	0.328	GREEN	GREEN	<i>Dolichospermum circinale</i>	Potentially toxic, taste & odour
N1005	Edward R. Moulamein	2/06/2025	23,272	1.573	0	0.000	AMBER	GREEN		
N1010	Wakool R. Wakool-Barham Road	2/06/2025	41,679	0.091	0	0.000	GREEN	AMBER		
N1004	Wakool R. @ Stoney Crossing	2/06/2025	19,104	3.361	272	0.006	AMBER	AMBER	<i>Microcystis sp.</i>	Potentially toxic, taste & odour
N1009	Wakool R. Kyalite	2/06/2025	14,827	0.515	0	0.000	AMBER	AMBER		
<b>MENINDEE LAKE SYSTEM &amp; LOWER DARLING RIVER</b>										
N1042	Darling River at Wilcannia	4/06/2025	0	0.000	0	0.000	No Alert	No Alert		
N1087	Lake Wetherell Site 1	26/05/2025	20,414	0.005	0	0.000	No Alert	No Alert		
N1089	Lake Wetherell Site 3	26/05/2025	60,153	0.065	0	0.000	GREEN	No Alert		
N1090	Lake Wetherell Site 4	26/05/2025	31,930	0.065	340	0.009	GREEN	No Alert	<i>Microcystis sp.</i>	Potentially toxic, taste & odour
N1091	Lake Tandure Site 8	26/05/2025	661,809	0.901	0	0.000	AMBER	AMBER		
N1092	Lake Pamamaroo Inlet (Site 9)	26/05/2025	36,159	0.074	204	0.005	GREEN	No Alert	<i>Microcystis sp.</i>	Potentially toxic, taste & odour
N1129	42510013 Centre Pamamaroo (Site 13)	26/05/2025	15,787	0.014	0	0.000	AMBER	AMBER		
N1093	Lake Pamamaroo Outlet (Site 10)	26/05/2025	11,704	0.065	0	0.000	GREEN	No Alert		
N1094	Menindee Lakes, Copi Hollow	26/05/2025	18,120	0.026	0	0.000	No Alert	AMBER		
N1130	Lake Menindee Site 19	10/03/2025	4,002,030	34.592	37,714	2.952	RED	AMBER	<i>Raphidiopsis raciborskii</i>	Potentially toxic, taste & odour
N1339	Lake Menindee outlet regulator	26/05/2025	1,720,354	5.643	0	0.000	RED	RED		
N1128	Lake Cawndilla Site 34 Outlet	27/05/2025	369,086	1.466	238	0.024	AMBER	AMBER	<i>Anabaenopsis sp.</i>	Potentially toxic
N1095	Darling R. Menindee bhwb pump	27/05/2025	6,805	0.006	0	0.000	No Alert	GREEN		
N1086	Darling R u/s Weir 32	27/05/2025	8,410	0.022	0	0.000	No Alert	No Alert		
N1043	Darling R. Tolarno	4/06/2025	10,370	0.085	0	0.000	GREEN	No Alert		
N1040	Darling R. Pooncarie	4/06/2025	18,236	0.025	0	0.000	No Alert	No Alert		
N1041	Darling R. Burtundy	3/06/2025	2,177	0.003	0	0.000	No Alert	No Alert		
N1074	Darling R. Ellerslie	3/06/2025	25,586	0.020	0	0.000	No Alert	No Alert		
N1075	Darling R. Tapio	3/06/2025	0	0.000	0	0.000	No Alert	GREEN		
<b>GREAT DARLING ANABRANCH</b>										
N1350	Silver City Hwy	17/06/2025	59,112,365	86.986	0	0.000	RED	AMBER		

## 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 mm <sup>3</sup> /L	No Alert
Green	Low	0.05 to 0.5 mm <sup>3</sup> /L	Green
Yellow	Medium	0.5 to 5.0 mm <sup>3</sup> /L	Amber
Red	High	5.0 to 20.0 mm <sup>3</sup> /L	Red
Dark red	Extreme	> 20 mm <sup>3</sup> /L	Red

## Observations about the satellite images

Cloud cover continues to block recent satellite imagery of the Hume Dam. The last image available from 5/06/2025 indicates mostly very low-level phytoplankton activity (Figure 1).

The satellite image of the Menindee Lakes on 26/06/2025 (Figure 2) indicates that Lakes Tandure, Pamamaroo, Copi Hollow, Menindee and Cawndilla had mostly very 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 phytoplankton activity on 26/06/2025, while the anabranch had mostly medium phytoplankton activity. The Darling River branch had mostly very low phytoplankton activity.

Lake Victoria had mostly very low phytoplankton activity on 26/06/2025 (Figure 4).

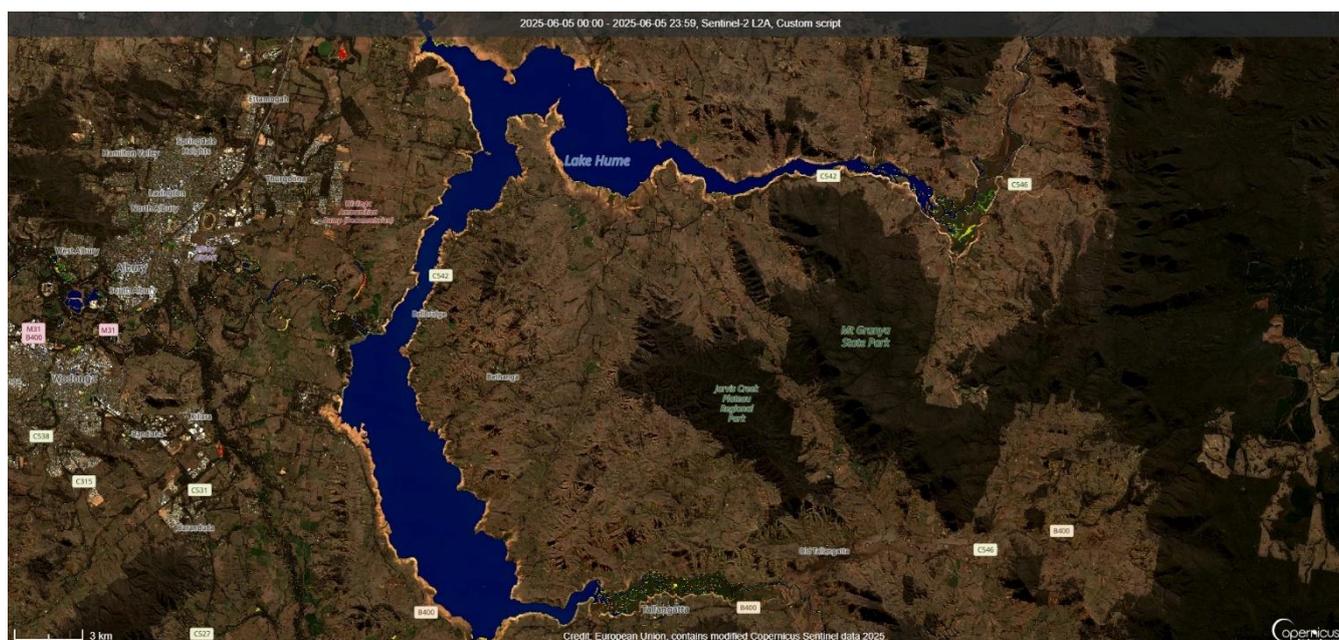


Figure 1: Hume Dam 05/06/2025 SentinelHub [CC BY-NC 4.0] NSW-Custom Algae Script - TF, WaterNSW.



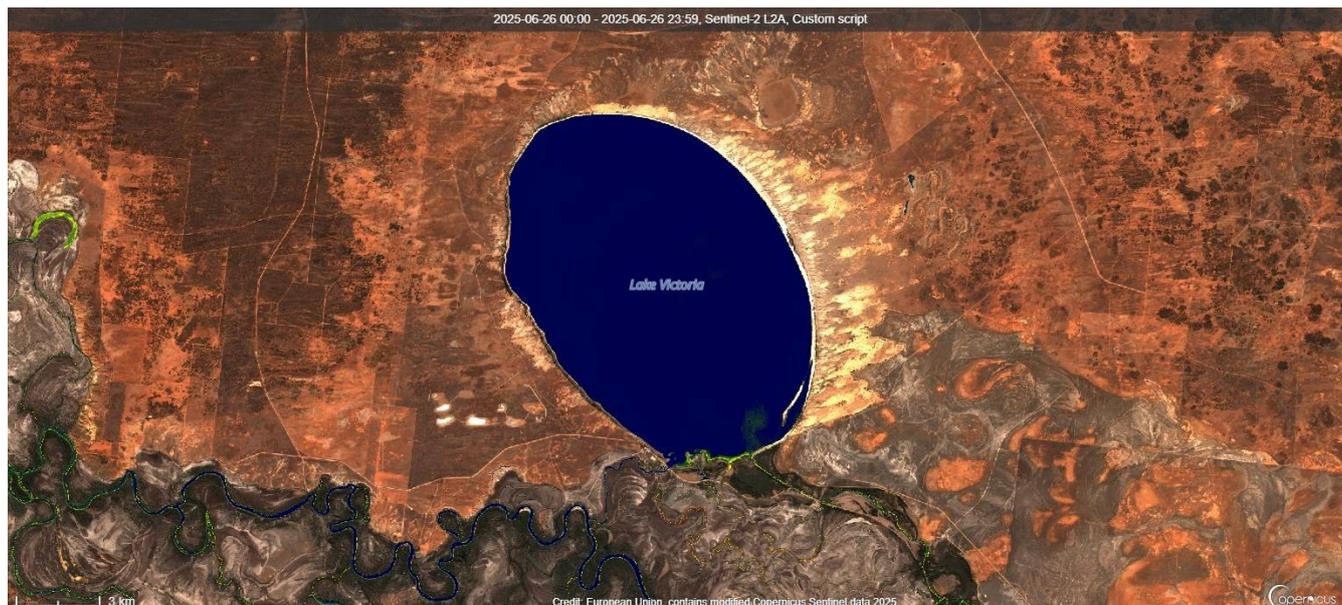


Figure 4: Lake Victoria 26/06/2025 SentinelHub [CC BY-NC 4.0] NSW-Custom Algae Script - TF, WaterNSW.

## 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

<p><b>RED Alert</b>  <math>\geq 50\,000</math> cells/mL toxic <i>M. aeruginosa</i>  OR  biovolume equivalent of <math>\geq 4</math> mm<sup>3</sup>/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 <math>\geq 10</math> mm<sup>3</sup>/L  OR  Cyanobacterial scums are consistently present</p>	<ul style="list-style-type: none"> <li>• High levels of Blue Green Algae detected</li> <li>• Indicates “bloom” conditions</li> <li>• Toxicity should be presumed</li> <li>• Water will appear green or brownish and may have a strong musty taste and odour</li> <li>• Surface scums could occur</li> <li>• <b>Extreme care should be exercised, and contact with the water should be avoided</b></li> </ul> <p><b>Action</b></p> <ul style="list-style-type: none"> <li>• Issue Media Release</li> <li>• Water supply authorities to increase filtering with activated carbon as appropriate</li> <li>• Local authority and health authorities to warn the public that the water body is unsuitable for primary contact recreation</li> </ul>
<p><b>AMBER Alert</b>  <math>\geq 5\,000</math> to <math>&lt; 50\,000</math> cells/mL <i>M. aeruginosa</i>  OR  biovolume equivalent of <math>\geq 0.4</math> to <math>&lt; 4</math> mm<sup>3</sup>/L for the combined total of all cyanobacteria where known toxin producers are dominant in the total biovolume  OR  <math>\geq 0.4</math> to <math>&lt; 10</math>mm<sup>3</sup>/L combined total for all blue-green algae where known toxin producers are not dominant</p>	<ul style="list-style-type: none"> <li>• Indicates blue-green algae are multiplying</li> <li>• Water may have a green tinge and musty taste and odour</li> </ul> <p><b>Action</b></p> <ul style="list-style-type: none"> <li>• Water supply authorities to consider filtering with activated carbon</li> <li>• Investigations into the causes of the elevated levels and increased sampling to enable the risks to recreational users to be more accurately assessed.</li> </ul>
<p><b>GREEN Alert</b>  <math>&gt; 500</math> to <math>&lt; 5\,000</math> cells/mL <i>M. aeruginosa</i>  OR  biovolume equivalent of <math>&gt; 0.04</math> to <math>&lt; 0.4</math> mm<sup>3</sup>/L for the combined total of all cyanobacteria</p>	<ul style="list-style-type: none"> <li>• Low levels of potentially toxic species detected – suggesting base crop of blue green algae may be on the increase</li> </ul> <p><b>Action</b></p> <ul style="list-style-type: none"> <li>• Continue/increase routine sampling to measure cyanobacterial levels</li> </ul>

**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<sup>3</sup>/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](http://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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