Lachlan Region - Algae Alert Status

29 January, 2026

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

Red Alerts

- Lake Brewster Regulator C
- Lake Brewster Outlet Channel
- Lake Cargelligo Boatshed
- Lake Cargelligo Town Water Supply

Amber Alerts

- Lake Brewster Inflow
- Lachlan River at Willandra Weir
- Carcoar Dam Station 1(Dam Wall)
- Lake Cargelligo outlet @ Lake Creek
- Lachlan River at Hillston
- Lachlan River at Booligal
- Lachlan River at Coorong

Green Alerts

- Wyangala Junction Lachlan & Abercrombie
- Wyangala Junction Lachlan & Sandy Ck
- Wyangala Abercrombie River
- Lake Cargelligo intake downstream of Curlew Waters

General Comments: Weekly seasonal algal monitoring is currently being undertaken for the Lake Brewster and Lake Cargelligo systems.

Weather Forecast: The 3 monthly outlook from the Bureau is as follows:

- **Rainfall** is 50% - 60% likely to be above the long term median rainfall across most of New South Wales.
- **Daytime temperatures** are 65% – >80% likely to be above the long term median temperature across most of New South Wales.
- **Overnight temperatures** are 55% – >80% likely to be above the long term median temperature across most of New South Wales.

(Source: Bureau of Meteorology (BoM))

Algae Outlook: Algal risk remains elevated in particular where flows have reduced. Algal assemblages in the Lachlan system are dominated by excessive growth of non-potentially toxic taxa suggesting the potential for growth is high. Changes in environmental conditions may lead to a shift in taxa to more problematic species.

Satellite image observations start on page 3 of this report.

Results Table

Table 1: Current blue-green algal alerts in the catchment of the Lachlan River.

Site	Description	Latest Sample Date	Cyanobacteria Total Count (cells/mL)	Cyanobacteria Biovolume (mm^3/L)	Potentially Toxic Cyanobacterial Count (cells/mL)	Potentially Toxic Cyanobacterial Biovolume (mm^3/L)	Current Status (Based on Latest Sample)	Previous Status	Cyanobacteria Dominant Potentially Toxic Taxa	Comments on Dominant Potentially Toxic Cyanobacteria Taxa
Wyangala Dam										
DWYA01	Wyangala Junction Lachlan & Abercrombie	14/01/2026	112406	0.109	204	0.005	GREEN	GREEN	*Microcystis sp.*	Potentially toxic, taste & odour
DWYA02	Wyangala Junction Lachlan & Sandy Ck	14/01/2026	176182	0.230	255	0.032	GREEN	GREEN	*Aphanizomenonaceae sp.*	Potentially toxic, taste & odour
DWYA05	Wyangala Abercrombie R	14/01/2026	117197	0.322	952	0.105	GREEN	GREEN	*Aphanizomenonaceae sp.*	Potentially toxic, taste & odour
DWYA06	Wyangala Inland Waters Park	14/01/2026	6124	0.006	0	0.000	No Alert	GREEN		
DWYA08	Wyangala Dam Wall Station 1	14/01/2026	45516	0.030	0	0.000	No Alert	No Alert		
DWYA04	Wyangala Dam Downstream	14/01/2026	680	0.001	0	0.000	No Alert	No Alert		
N1168	Lachlan River at Cowra	8/01/2026	3402	0.005	0	0.000	No Alert	No Alert		
Carcoar Dam										
DCAR01	Carcoar Dam Station 1 (Dam Wall)	13/01/2026	8824	0.190	561	0.066	AMBER	AMBER	*Dolichospermum sp.*	Potentially toxic, taste & odour
DCAR02	Carcoar Downstream (Belubula River)	13/01/2026	0	0.000	0	0.000	No Alert	No Alert		
N1022	Lachlan River at Cottons Weir (Forbes)	8/01/2026	0	0.000	0	0.000	No Alert	No Alert		
N1024	Lachlan River @ Condobolin Bridge	8/01/2026	0	0.000	0	0.000	No Alert	No Alert		
Lake Cargelligo										
DCRG04	Lake Cargelligo Weir	19/01/2026	2858	0.001	0	0.000	No Alert	No Alert		
DCRG06	Lachlan River downstream of Lake Cargelligo Weir	19/01/2026	1088	0.002	0	0.000	No Alert	No Alert		
DCRG05	Lake Cargelligo intake downstream of Curlew Waters	19/01/2026	50033	0.263	1802	0.206	GREEN	GREEN	*Aphanizomenonaceae sp.*	Potentially toxic, taste & odour
DCRG02	Lake Cargelligo Town Water Supply 41210042	19/01/2026	521973	2.395	1376	0.164	RED	RED	*Dolichospermum sp.*	Potentially toxic, taste & odour
DCRG03	Lake Cargelligo Boatshed	19/01/2026	572431	2.162	6489	0.812	RED	RED	*Aphanizomenonaceae sp.*	Potentially toxic, taste & odour
DCRG01	Lake Cargelligo Outlet @ Lake Creek	19/01/2026	127176	0.331	204	0.029	AMBER	RED	*Anabaenopsis sp.*	Potentially toxic
Lake Brewster										
DBRW01	Lake Brewster Inflow 412102	19/01/2026	261633	0.306	1157	0.014	AMBER	AMBER	*Geitlerinema splendidum*	Potentially toxigenic
DBRW02	Lake Brewster Inf wetland u/s eastern spillway									
DBRW03	Lake Brewster Regulator C	19/01/2026	1421217	66.194	572407	48.388	RED	RED	*Dolichospermum circinale*	Potentially toxic, taste & odour
DBRW04	Lake Brewster Outlet Channel 412108	19/01/2026	93632	0.461	1274	0.034	RED	RED	*Oscillatoriaceae/Microcoleaceae sp.*	Potentially toxic, taste & odour
DLOS06	Lachlan River @ Willandra Weir	19/01/2026	68802	0.423	2051	0.135	AMBER	AMBER	*Microcystis sp.*	Potentially toxic, taste & odour
N1025	Lachlan River at Hillston	21/01/2026	75885	3.702	5852	1.425	AMBER	GREEN	*Oscillatoriaceae/Microcoleaceae sp.*	Potentially toxic, taste & odour
N1023	Lachlan River at Booligal	20/01/2026	91468	0.996	531	0.012	AMBER	No Alert	*Microcystis sp.*	Potentially toxic, taste & odour
N1026	Lachlan River at Corrong	20/01/2026	474594	2.678	9841	1.421	AMBER	AMBER	*Anabaenopsis sp.*	Potentially toxic

*Indicates that sampling results show algal numbers have reduced, however another low sampling result is required to reduce the alert to a lower level.

Satellite Imagery

The key to the algae approximate concentrations using the Custom Algae (CA) Script is to provide a starting reference only (Table 2). 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. Therefore, these colours and descriptors are not the official **"**Algae Alert Level**"** but rather provides information on the potential risk on algae formation.

Table 2: Observed risk levels based on probable chlorophyll-a concentration 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

Note: Satellite images are usually more recent than the sampling data and therefore may contribute to not agreeing with sampled algae results. So please check dates when comparing.

Satellite Image Observations (Figures 1 through 4)

Wyangala Dam: Lower levels of photosynthetic activity were indicated by the satellite imagery on the 28th of January (Figure 1).

Carcoar Dam: Lower levels of photosynthetic activity were indicated by the satellite imagery on the 28th January (Figure 2) in the main body of the lake. Upstream does show significant levels of activity.

Lake Cargelligo: Low to moderate levels of photosynthetic activity were indicated by the satellite imagery on the 26th of January (Figure 3).

Lake Brewster: Significant photosynthetic activity is visible in one of the auxiliary cells as indicated by the satellite imagery on the 24th of January. Exposure of the lake bed due to planned drawdown is visible in the imagery (Figure 4). Subsequent imagery is constrained by cloud cover.

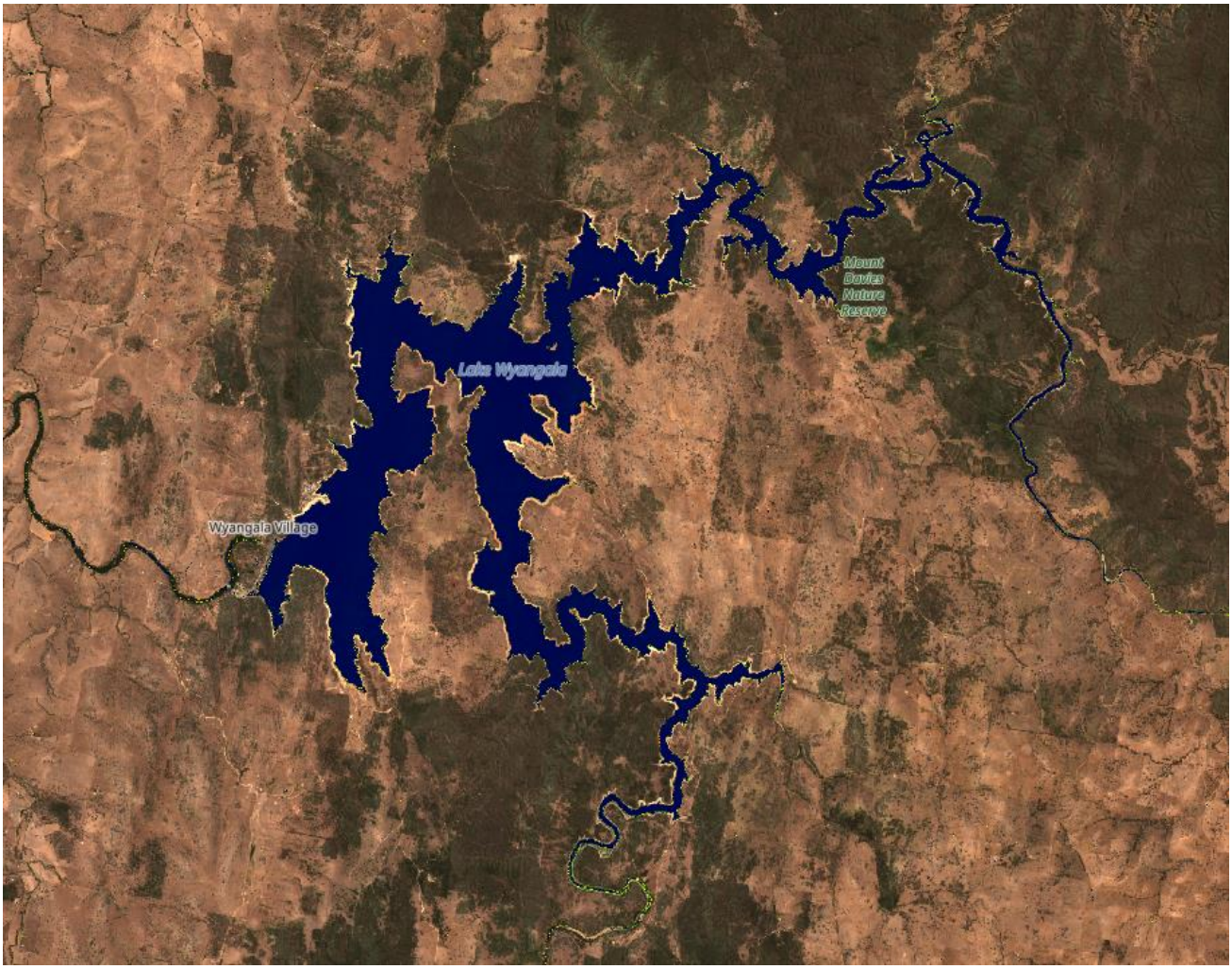

Figure 1. Wyangala Dam 28/01/2026 Sentinel Hub [CC BY-NC 4.0] NSW-Custom Algae Script - TF, WaterNSW

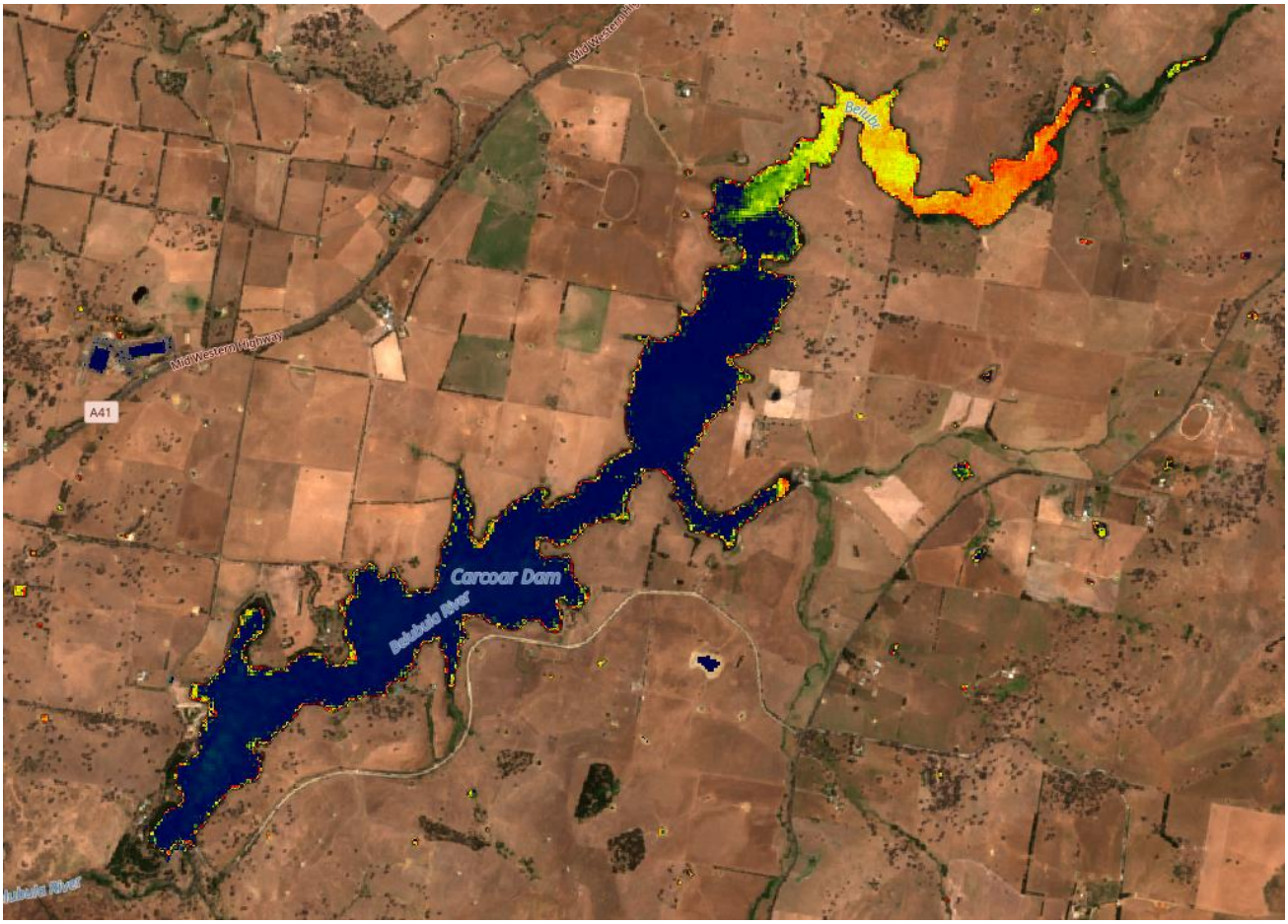

Figure 2. Carcoar Dam 28/01/2026 Sentinel Hub [CC BY-NC 4.0] NSW-Custom Algae Script - TF, WaterNSW

Figure 3. Lake Cargelligo 26/01/2026 Sentinel Hub [CC BY-NC 4.0] NSW-Custom Algae Script - TF, WaterNSW

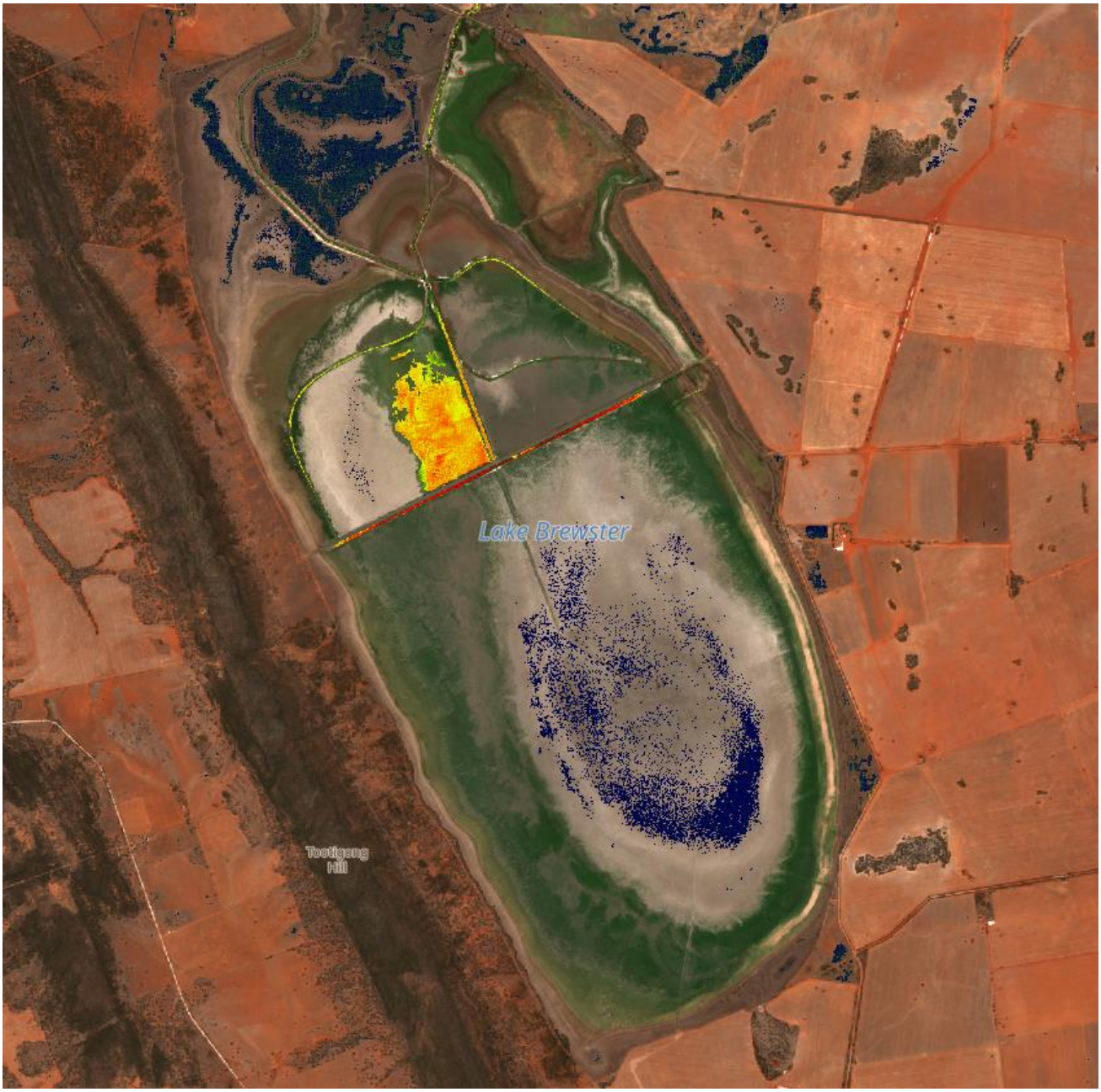

Figure 4. Lake Brewster 24/01/2026 Sentinel Hub [CC BY-NC 4.0] NSW-Custom Algae Script - TF, WaterNSW.

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 ≥10 µg/L total Microcystins OR ≥50 000 cells/mL toxic *M. aeruginosa* OR biovolume equivalent of ≥4 mm3/L for the combined total of all cyanobacteria where a known toxin producer is dominant in the total biovolume. OR ≥10 mm3/L for total biovolume of all cyanobacterial material where known toxins are not present. 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 ≥5000 to <50 000 cells/mL *M. aeruginosa* OR biovolume equivalent of ≥0.4 to <4 mm3/L for the combined total of all cyanobacteria where a known toxin producer is dominant in the total biovolume OR ≥0.4 to <10 mm3/L for the combined total of all cyanobacteria where known toxin producers are not present.	• 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 <5000 cells/mL *M. aeruginosa* OR biovolume equivalent of >0.04 to <0.4 mm3/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.

*The definition of 'dominant' is where the known toxin producer comprises 75% or more of the total biovolume of cyanobacteria in a representative sample.

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

Water NSW Algal Websites
Algal Information: **http://www.waternsw.com.au/algae**
Water Insights (Lachlan Catchment)**:** **https://waterinsights.waternsw.com.au/**
Algae Alerts NSW Map: **https://www.waternsw.com.au/water-services/water-quality/algae-alerts**

Department of Primary Industries Algal Websites
https://www.dpi.nsw.gov.au/agriculture/water/quality/pubs-and-info/blue-green-algae

BOM Websites
7 Day Forecasts: **http://www.bom.gov.au/nsw/forecasts/map7day.shtml**
BOM: **http://www.bom.gov.au/**

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