Lachlan Region - Algae Alert Status

09 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

Amber Alerts

- Lake Brewster Inf wetland u/s eastern spillway
- Lake Cargelligo Boatshed
- Lake Cargelligo Town Water Supply
- Lake Cargelligo outlet @ Lake Creek
- Lachlan River at Corrong
- Carcoar Dam Station 1(Dam Wall)

Green Alerts

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

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	9/12/2025	48748	0.051	578	0.031	GREEN	No Alert	*Microcystis sp.*	Potentially toxic, taste & odour
DWYA02	Wyangala Junction Lachlan & Sandy Ck	9/12/2025	36261	0.235	4293	0.218	GREEN	GREEN	*Microcystis sp.*	Potentially toxic, taste & odour
DWYA05	Wyangala Abercrombie R	9/12/2025	16947	0.237	8496	0.231	GREEN	GREEN	*Phormidium sp.*	Potentially toxic, taste & odour
DWYA06	Wyangala Inland Waters Park	9/12/2025	16126	0.191	680	0.019	GREEN	No Alert	*Microcystis sp.*	Potentially toxic, taste & odour
DWYA08	Wyangala Dam Wall Station 1	9/12/2025	24693	0.032	476	0.013	No Alert	No Alert	*Microcystis sp.*	Potentially toxic, taste & odour
DWYA04	Wyangala Dam Downstream	9/12/2025	0	0.000	0	0.000	No Alert	No Alert		
N1168	Lachlan River at Cowra	4/12/2025	0	0.000	0	0.000	No Alert	No Alert		
Carcoar Dam										
DCAR01	Carcoar Dam Station 1 (Dam Wall)	9/12/2025	39126	0.684	4341	0.235	AMBER	GREEN	*Microcystis aeruginosa/botrys*	Potentially toxic, taste & odour
DCAR02	Carcoar Downstream (Belubula River)	9/12/2025	0	0.000	0	0.000	No Alert	No Alert		
N1022	Lachlan River at Cottons Weir (Forbes)	3/12/2025	0	0.000	0	0.000	No Alert	No Alert		
N1024	Lachlan River @ Condobolin Bridge	3/12/2025	0	0.000	0	0.000	No Alert	No Alert		
Lake Cargelligo										
DCRG04	Lake Cargelligo Weir	22/12/2025	4287	0.033	0	0.000	No Alert	No Alert		
DCRG06	Lachlan River downstream of Lake Cargelligo Weir	22/12/2025	1837	0.005	0	0.000	No Alert	No Alert		
DCRG05	Lake Cargelligo intake downstream of Curlew Waters	22/12/2025	7485	0.076	680	0.040	GREEN	No Alert	*Phormidium/Planktothrix sp.*	Potentially toxic
DCRG02	Lake Cargelligo Town Water Supply 41210042	22/12/2025	751428	1.431	1070	0.125	AMBER	GREEN	*Dolichospermum sp.*	Potentially toxic, taste & odour
DCRG03	Lake Cargelligo Boatshed	22/12/2025	552250	0.826	136	0.016	AMBER	GREEN	*Dolichospermum sp.*	Potentially toxic, taste & odour
DCRG01	Lake Cargelligo Outlet @ Lake Creek	22/12/2025	804850	0.935	0	0.000	AMBER	GREEN		
Lake Brewster										
DBRW01	Lake Brewster Inflow 412102	22/12/2025	0	0.000	0	0.000	No Alert	No Alert		
DBRW02	Lake Brewster Inf wetland u/s eastern spillway	10/11/2025	21970	6.072	1359	0.027	AMBER	AMBER	*Phormidium sp.*	Potentially toxic, taste & odour
DBRW03	Lake Brewster Regulator C	8/12/2025	21912383	31.306	0	0.000	RED	RED		
DBRW04	Lake Brewster Outlet Channel 412108	22/12/2025	1246	0.017	0	0.000	No Alert	AMBER		
DLOS06	Lachlan River @ Willandra Weir	22/12/2025	3266	0.027	0	0.000	No Alert	AMBER		
N1025	Lachlan River at Hillston	2/12/2025	264632	0.292	0	0.000	GREEN	AMBER		
N1023	Lachlan River at Booligal	2/12/2025	5926	0.006	0	0.000	No Alert	No Alert		
N1026	Lachlan River at Corrong	2/12/2025	119951	1.688	0	0.000	AMBER	No Alert		

*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 3rd of January (Figure 1). Subsequent imagery is constrained by cloud coverage.

Carcoar Dam: Lower levels of photosynthetic activity were indicated by the satellite imagery on the 3rd of January (Figure 2). Subsequent imagery is constrained by cloud coverage.

Lake Cargelligo: Increasing levels of photosynthetic activity were indicated by the satellite imagery on the 4th of January (Figure 3). Subsequent imagery is constrained by cloud cover.

Lake Brewster: Significant photosynthetic activity is visible across the main cell as indicated by the satellite imagery on the 4th 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.

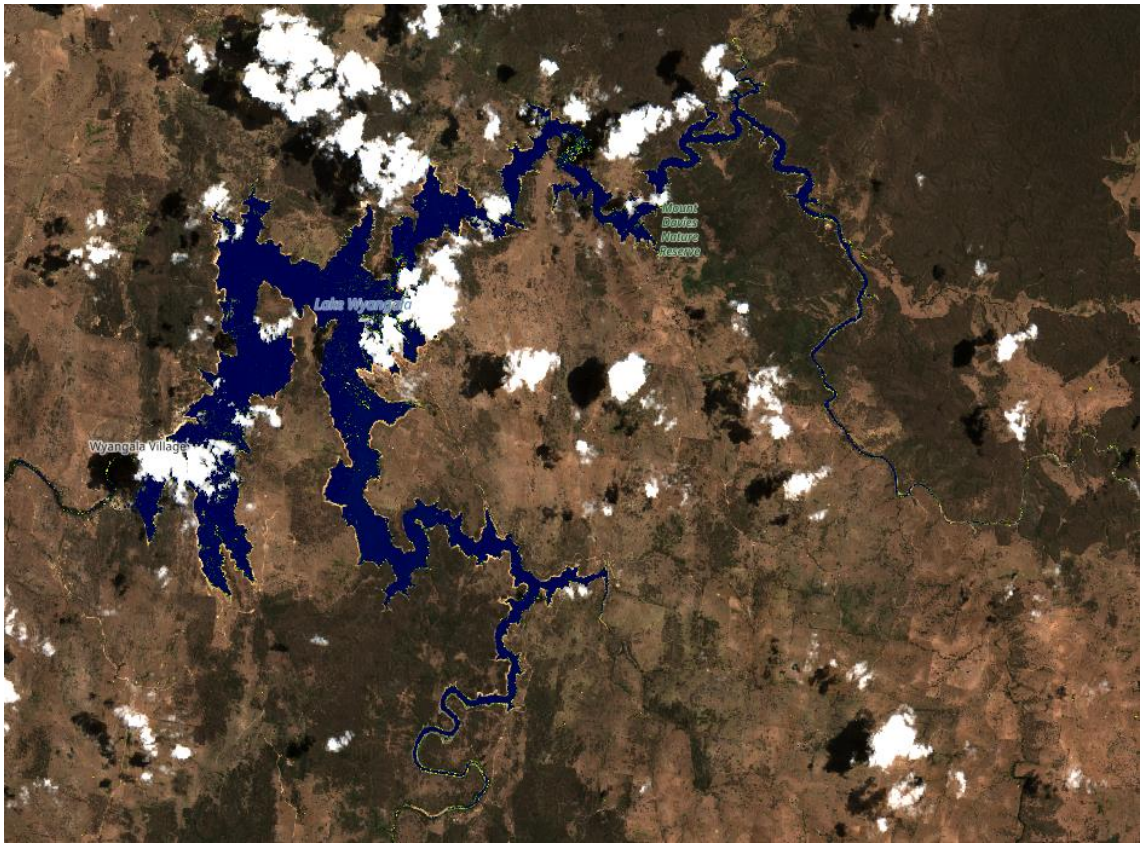

Figure 1. Wyangala Dam 03/01/2026 Sentinel Hub [CC BY-NC 4.0] NSW-Custom Algae Script - TF, WaterNSW

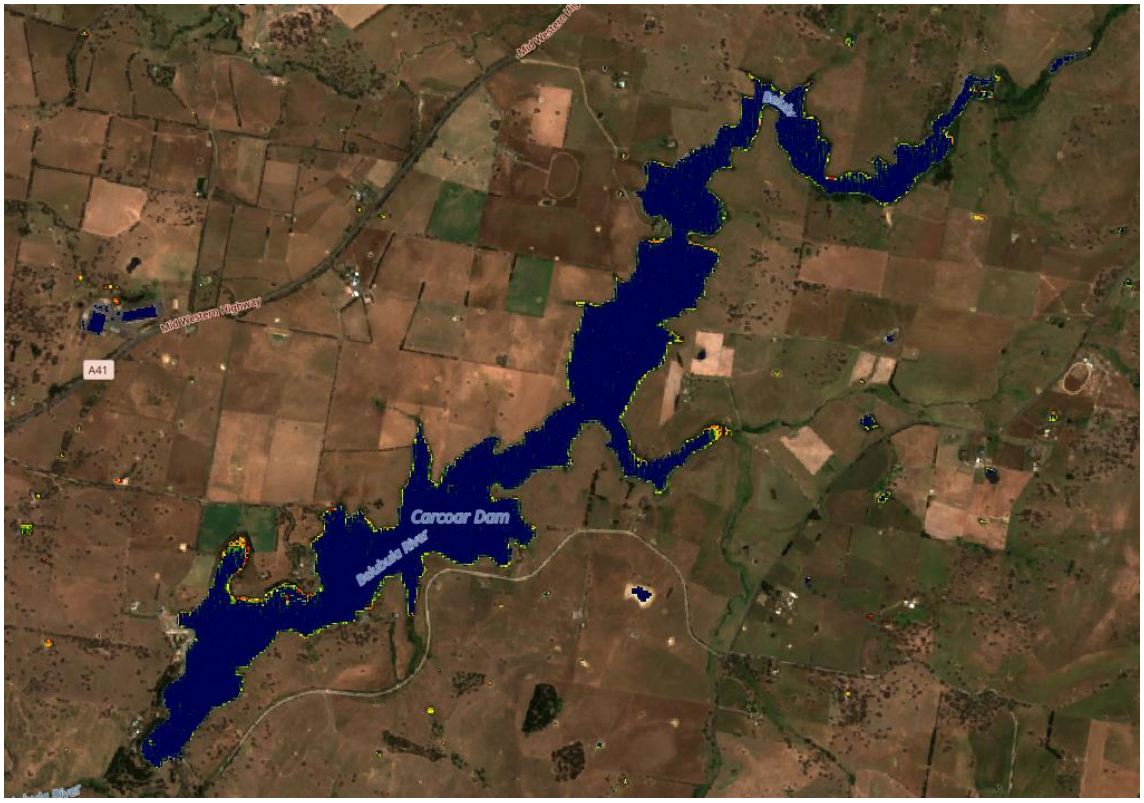

Figure 2. Carcoar Dam 03/01/2026 Sentinel Hub [CC BY-NC 4.0] NSW-Custom Algae Script - TF, WaterNSW

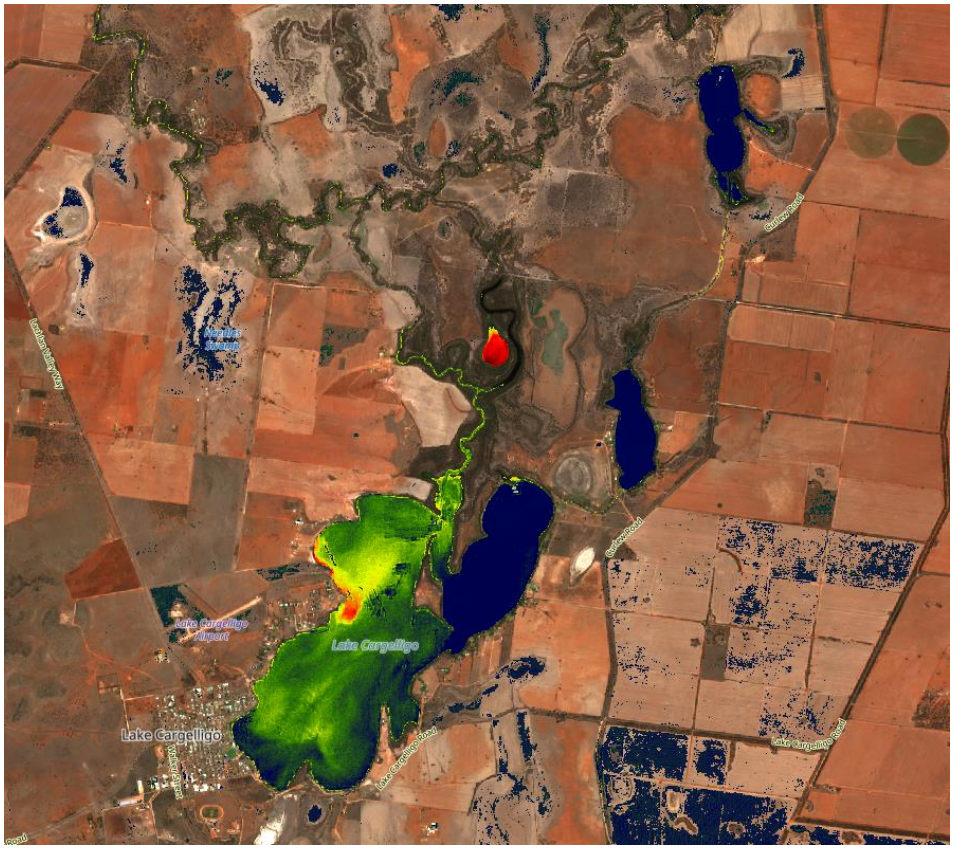

Figure 3. Lake Cargelligo 04/01/2026 Sentinel Hub [CC BY-NC 4.0] NSW-Custom Algae Script - TF, WaterNSW

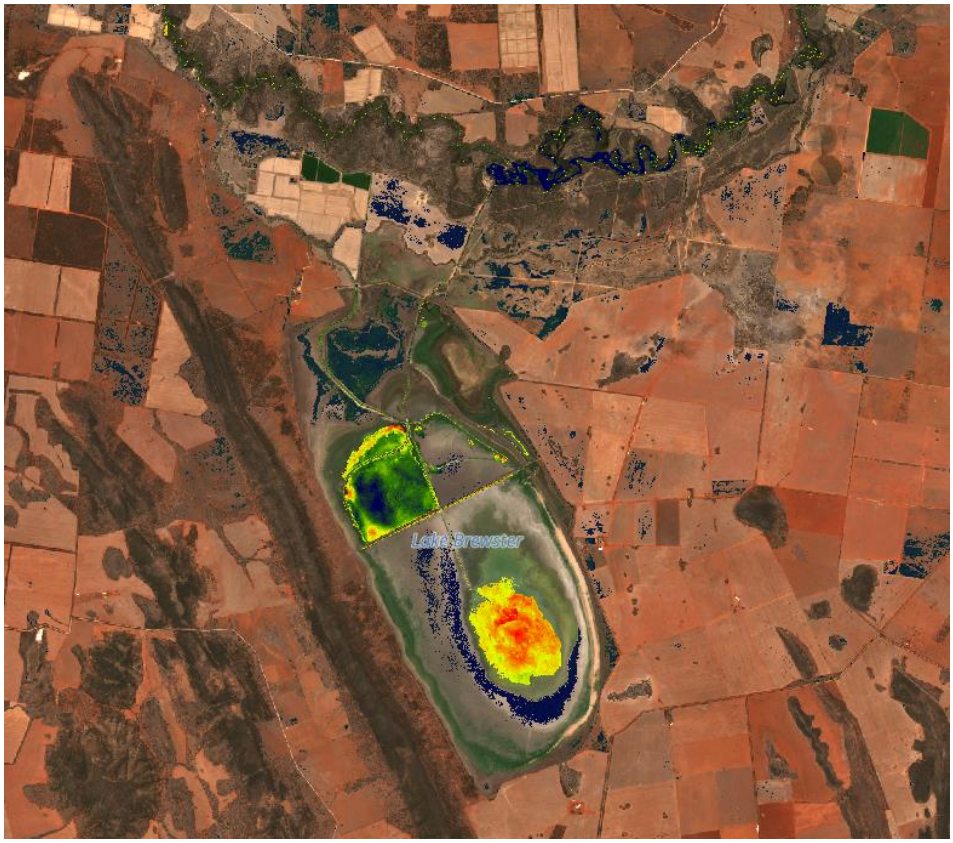

Figure 4. Lake Brewster 04/01/2026 Sentinel Hub [CC BY-NC 4.0] NSW-Custom Algae Script - TF, WaterNSW.

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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