

Algal Alerts in the Lachlan Catchment

9th January 2007



NSW Government

DEPARTMENT OF NATURAL RESOURCES

Lachlan Storages

Table 1 – Total potentially toxic blue-green algal counts in Lachlan Catchment Storages

Date Alert	Storage Sites	Current count (cells/mL)	Previous count (cells/mL)	Potentially Toxic Algae
18/12/06 AMBER	Lake Wyangala at Dam Wall (Stn 1)	36,555	7,701	Microcystis flos-aquae
18/12/06 AMBER	Lake Wyangala at State Rec Area (Stn 7)	35,397	7,697	Microcystis flos-aquae
18/12/06 AMBER	Lake Wyangala at Grabine (Stn 2)	22,496	3,364	Microcystis flos-aquae
2/01/07 AMBER	Carcoar Dam (Stn 1)	14,093	20,444	Microcystis flos-aquae
2/01/07 RED	Carcoar Dam (Stn 2)	120,004	13,497	Microcystis flos-aquae
3/01/07 RED	Lake Cargelligo at Town Water Supply (41210042)	117,705	662	Anabaena circinalis.
Nil	Lake Creek (Lake Cargelligo Outlet)	No results	0	No potentially toxic BGA detected
Nil	Lake Brewster Outlet	DNS	DNS	No outflows from Lake Brewster

*DNS = Did not sample

Lachlan River Sites

Table 2 – Potentially toxic blue-green counts in the Lachlan River

Date Alert	River Sites	Current Level (cells/mL)	Previous Level (cells/mL)	Potentially Toxic Algae (cells/mL)
18/12/06 GREEN	Lachlan River @ d/s Wyangala Dam	1,819	None detected	Microcystis
Nil	Belubula River downstream Carcoar	None detected	None detected	-
Nil	Lachlan River @ Cowra	None detected		
6/12/06 Nil	Lachlan River @ Forbes	None detected	None detected	
28/11/06 GREEN	Lachlan River @ Condobolin	None detected	875	

3/01/07 Nil	Lachlan River at Lake Cargelligo Weir	None detected	0	No potentially toxic BGA detected
3/01/07 Nil	Lachlan River at Lake Brewster Weir	None detected	nil	Anabaena sp.
3/01/07 Nil	Lachlan River at Willandra Weir	458	nil	Anabaena sp.
12/12/06 AMBER	Lachlan River at Hillston Weir	5624	471	Anabaena sp.
3/01/07 AMBER	Lachlan River at Booligal Weir	7,418	10,189	Anabaena sp.

Key to alerts

Blue-Green Algal Level	Alert Definition
<p>GREEN</p> <p>>500 – <5 000 cells/mL potentially toxic cyanobacteria</p>	<p>Green Alert</p> <ul style="list-style-type: none"> Low levels of potentially toxic species detected – suggesting base population may be on the increase This also applies where high cell densities or scums of ‘non-toxic’ cyanobacteria are present, ie where the cyanobacterial population has been tested and shown not to contain known toxins (microcystin, nodularin, cylindrospermopsin or saxitoxins). <p>Action</p> <ul style="list-style-type: none"> Continue/increase routine sampling to measure cyanobacterial levels
<p>AMBER</p> <p>≥5 000 – <50 000 cells/mL potentially toxic cyanobacteria</p>	<p>Amber Alert</p> <ul style="list-style-type: none"> Cell numbers increasing This refers to a situation where scums might be observed when conditions are calm, particularly in the morning. Note that it is not likely that scums are always present and visible when there is a high population, as the cells may mix down with wind and turbulence and then reform later when conditions become stable. <p>Action</p> <ul style="list-style-type: none"> Water supply authorities to commence 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
<p>RED</p> <p>>50 000 cells/mL potentially toxic cyanobacteria</p>	<p>Red Alert</p> <ul style="list-style-type: none"> High levels of potentially toxic species detected cyanobacterial scums are consistently present <p>Action</p> <ul style="list-style-type: none"> 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 considered to be unsuitable for primary contact recreation

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