Algal Alerts in the Lachlan Catchment

22nd 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
09/01/07 AMBER	Lake Wyangala at Dam Wall (Stn 1)	25,666 (0.59 mm^3/L all sp. Comb.)	36,555	Microcystis flos-aquae
09/01/07 AMBER (adjusted for biovolume eq.)	Lake Wyangala at State Rec Area (Stn 7)	67,189 (2.0 mm^3/L all sp. Comb.)	35,397	Microcystis flos-aquae
9/01/07 AMBER	Lake Wyangala at Grabine (Stn 2)	49,539 (1.14 mm^3/L all sp. Comb.)	22,496	Microcystis flos-aquae
9/01/07 AMBER	Carcoar Dam (Stn 1)	34,430 (0.76 mm^3/L all sp. Comb.)	14,093	Microcystis flos-aquae
9/01/07 RED	Carcoar Dam (Stn 2)	35,530 (0.78 mm^3/L all sp. Comb.)	120,004	Microcystis flos-aquae
15/01/07 RED (adjusted for biovolume eq.)	Lake Cargelligo at Town Water Supply (41210042)	18,161 (10.8 mm^3/L all sp. comb.)	39,053	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)
09/01/07 GREEN	Lachlan River @ d/s Wyangala Dam	170	1,819	Microcystis
09/01/07 GREEN	Belubula River downstream Carcoar	1,075	None detected	Microcystis flos-aquae
08/01/07 Nil	Lachlan River @ Cowra	None detected		
09/01/07 Nil	Lachlan River @ Forbes	None detected	None detected	
28/11/06 GREEN	Lachlan River @Condobolin	None detected	875	

15/01/07 Nil	**Lachlan River at Lake Cargelligo Weir**	**None detected**	**0**	**No potentially toxic BGA detected**
15/01/07 GREEN	**Lachlan River at Lake Brewster Weir**	**4,135**	**2,265**	**Anabaena sp.**
15/01/07 GREEN	**Lachlan River at Willandra Weir**	**1,125**	**2,340**	**Anabaena sp.**
17/01/07 AMBER	**Lachlan River at Hillston Weir**	**94**	**926**	**Anabaena sp.**
4/01/07 AMBER	Lachlan River at Booligal Weir	22,722	7,481	A. circinalis

Key to alerts

Blue-Green Algal Level	Alert Definition
GREEN >500 – <5 000 cells/mL potentially toxic cyanobacteria (or calculated bio-volume equivalent)	Green Alert • 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). Action • Continue/increase routine sampling to measure cyanobacterial levels
AMBER ≥5 000 – <50 000 cells/mL potentially toxic cyanobacteria (or calculated bio-volume equivalent)	Amber Alert • 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. Action • 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
RED >50 000 cells/mL potentially toxic cyanobacteria (or calculated bio-volume equivalent)	Red Alert • High levels of potentially toxic species detected • cyanobacterial scums are consistently present 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 considered to be unsuitable for primary contact recreation

For further information contact Chris Knight (02) 6841 7473.

For toll free information contact the Central West Algal Information Hotline 1 800 999 457

For media enquiries contact Katie Ritchie on 02 6850 2808 or Mobile 0429 660 318