



NSW Government

## DEPARTMENT OF NATURAL RESOURCES

Far West Region, PO Box 1840, Dubbo NSW 2830  
Phone: (02) 6883 3000, Fax: (02) 6883 3099**Algae Alerts for the Barwon-Darling River System for December 22<sup>nd</sup> 2005**

This blue-green algal alert report is based on routine monitoring undertaken by Bourke Shire Council, Central Darling Shire Council, Brewarrina Shire Council and the Department of Natural Resources Far West and Barwon region staff

LOCATION	CURRENT ALERT LEVEL	Count and predominant (potentially toxic) cyanobacteria Genera <sup>#</sup>	Previous Alert Level
Barwon River @ Mungindi	17 Nov 05 nil	No current information	nil
Barwon River @ Collarenebri	12/12/05 No alert	428 C/ml/Anabaena sp	Low – 246 nil
Barwon River @ Walgett Dangar Bridge	12/12/05 GREEN	1422 C/ml / Anabaena sp	Low - 474
Namoi River @ Walgett	21/12/05 AMBER	8011 C/ml / Anabaena sp.	High - 4729
Barwon River @ Brewarrina	12/12/05 No alert	300 C/ml / Anabaena	Low - 1284
Darling River @ Bourke	20 DEC 05 GREEN	1199 C/ml / Anabaena sp	1849 c/ml
Darling River @ 'Rose Isle' 30km north east of Louth NSW	20 DEC 05 GREEN	4345 C/ml / Anabaena sp	Low - 1438
Darling River @ Louth	20 DEC 05 No alert	411 C/ml / Anabaena sp	nil
Darling River @ Tilpa	13 DEC. 05 Nil	No blue green alge detected	
Darling River @ 'Trevallyn' 70km south west of Tilpa NSW	Nil	No blue green alge detected	
Darling River @ 'Atley' 10km east of Wilcannia NSW	Nil	No current information	
Darling River @ Wilcannia	Nil	No current information	
Darling River @ 'Culpaulin' 25km south west of Wilcannia NSW	Nil	No current information	

<sup>#</sup> Only the predominant POTENTIALLY TOXIC observed cyanobacteria genera that contribute to the current alert level are presented above. *There may also have been other cyanobacteria genera present.* These data are presented for information only. We recommend that water treatment and stock management responses should not be altered according to the observed cyanobacteria genera. All Cyanobacteria should be considered as potentially harmful to human and animal health when present in blooms.

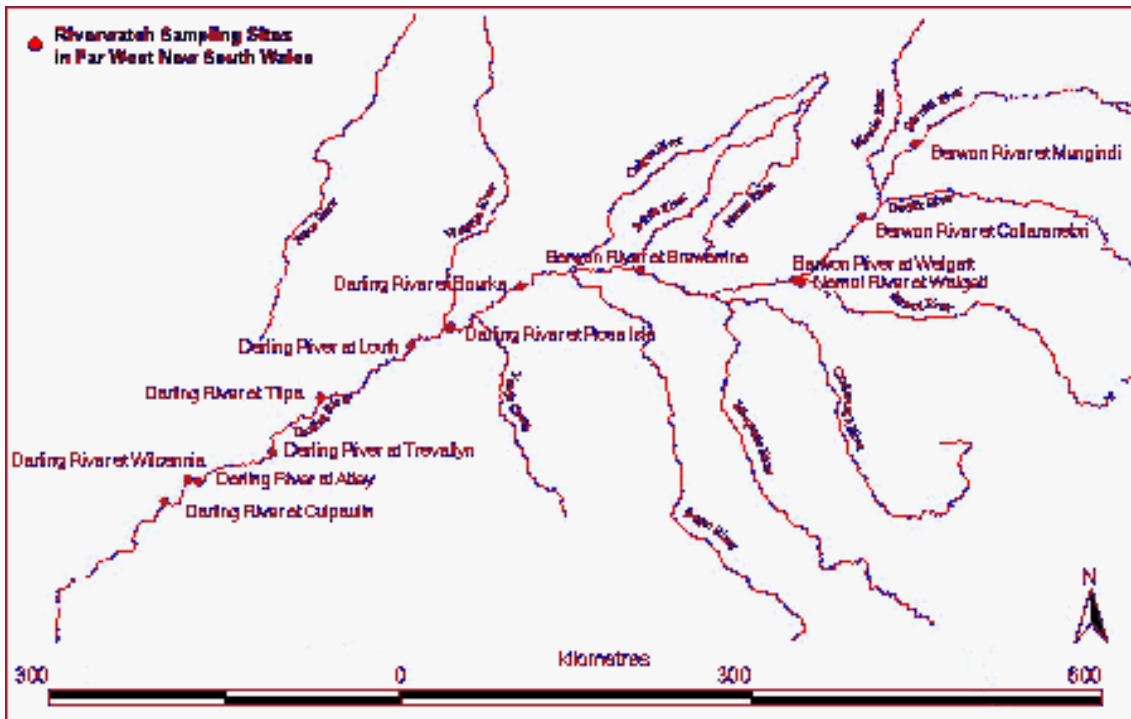
For all media enquiries concerning this report contact: Richard Hicks (02 6883 3000 or 0419 842 587) or Geoff Wise (02 6883 3000 or 0429 822 591)

For further information about this report contact Chris Knight on 02 6841 7473

For toll free information on blue-green algae in upstream water storages ring **1800 999 457**

For further information on blue-green algae in the Barwon-Darling River ring **1800 999 457(then dial 1-,2-,3)**

River users and landholders are advised to avoid waters in areas subject to RED (High) alert levels or with visible algae scums. They should also consider either alternative sources of water or treatment of river water supply to remove algae and algae by-product. NSW Health advises that any domestic use of surface water without treatment should be avoided.



#### ALERT DEFINITIONS AS SPECIFIED BY THE NEW INTERIM GUIDELINES FOR CYANOBACTERIA IN NEW SOUTH WALES (RECREATIONAL WATERS)

##### **RED (High) Alert (>50000 cells/ml)**

These alert levels represent 'bloom' conditions. The water will appear green and may have strong, musty or organically polluted odours. The cyanobacteria will be visible as clumps or as scums. Cyanobacteria 'blooms' may be toxic to humans and animals. Toxicity should be assumed. People should avoid reaches where cyanobacteria can be seen or which have a strong odour as previously described. Contact with or consumption of untreated water from the river should be avoided because of the risk of eye and skin irritations and stomach upsets. Boiling is not a suitable way of treating water containing cyanobacteria and in fact may release more toxins. Filtration in conjunction with activated carbon is a more effective means of water treatment. Dogs and stock are particularly at risk from toxic cyanobacteria blooms. Owners should keep dogs away from high alert areas and provide alternative watering points for stock.

##### **AMBER (Medium) Alert (5,000 - 50,000 cells/ml)**

Cyanobacteria may be multiplying in numbers. The water may have a green tinge and musty or organic taste and odour. Alternative supplies of raw water for domestic purposes should be considered. Domestic water suppliers should institute taste and odour removal systems where available. The water may be suitable for recreational use, however people should be cautious as algal concentrations can increase rapidly.

##### **Low Alert (>500 to <5,000 cells/ml)**

Cyanobacteria occur naturally at low numbers. At this concentration, algae do not pose a threat for recreational, stock or domestic use.

#### Drinking Water Guidelines

This guideline should be used when water is used for drinking water purposes. The only toxin concentration based guideline is that of 1.3 µg/L microcystin-LR toxicity equivalents. If blooms of other toxicogenic cyanobacteria are detected, relevant health authorities should be contacted and warnings issued.

In terms of algal cell concentration based warnings, the following are suggested;

> 500 cells/mL \* increase monitoring;

>2000 cells/mL \* consider need for toxicity testing (seek expert advice)

>6500 cells/mL \* seek advice from health authority

It should be noted that the presence and location of cyanobacteria in the Barwon-Darling river system could vary considerably, according to water and weather conditions.

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