

# Blue-Green Algae

Blue-green algae are a type of microscopic bacteria known as Cyanobacteria. Blue-green algae are a natural part of the freshwater environment. They are found in rivers and dams as well as irrigation channels and backyard pools.

Low levels of blue-green algae are present in freshwater all the time. However, when conditions are favourable blue-green algae can reproduce at very high rates, doubling in volume overnight. Blue-green algae can form 'blooms', depending on the blue-green algae species it can produce a toxic scum.

## Monitoring for blue-green algae

Murrumbidgee Irrigation (MI) has a proactive blue-green algae monitoring program that meets the recommendations of the Murrumbidgee Regional Algal Coordinating Committee (RACC) established by the NSW Government.

Samples are collected regularly, from September through to May from key monitoring sites. The samples are analysed by a NATA accredited laboratory for data integrity. The results of the analysis are published on our website in the Water Quality section. Blue-green algae levels can change significantly over short periods of time, particularly when temperatures increase and water movement is minimal.

Because of this, sample results can only ever be considered an indication of blue-green algae levels.

## Alert levels

Alerts are declared where algal cell numbers exceed the triggers identified in the Guidelines for Managing Risk in Recreational Waters (1.2MB PDF) published by the National Health and Medical Research Council (NHMRC 2010).

There are four alert levels:

1. **GREEN ALERT:** Low levels of BGA detected. Not considered a risk for human contact or stock consumption.
2. **AMBER ALERT:** Levels of BGA increasing. Not generally a risk for human contact or stock consumption.

3. **STOCK ALERT:** Elevated levels of BGA detected. Not suitable for stock use. Customers downstream of the detection point will be notified of this 'Stock Alert' via SMS or phone.
4. **RED ALERT:** High levels of BGA detected. Not suitable for stock use or human contact. Not suitable for stock use or human contact. Customers downstream of the detection point will be notified of a 'Domestic Alert' via SMS or phone.

**NOTE: Please note, that regardless of the presence of blue green algae, water supplied is not fit for human consumption. Water provided by MI is non-potable - i.e. not for human consumption as drinking water or related products (e.g. ice). Potable water (e.g. town supply) has been treated by local councils - please refer to their websites for further details.**

When a stock or red alert is triggered, the results are published on our website in the Water Quality section. Where possible, MI will issue SMS notifications to customers downstream of the detection points. The alert will be lifted when two consecutive samples are below the alert threshold.

Under the ANZECC-ARMCANZ 2000 Guidelines voll, no trigger values for cyanobacteria in irrigation waters are recommended at this time. The NSW Department of Primary Industries publishes information on water use suitability when blue-green algae are present. Customers are advised to obtain independent advice for the fitness of supplied water for their intended use.

## Managing BGA

It is not possible to eradicate blue-green algae from our supply network. However, we do take steps to minimise the likelihood and duration of blue-green algae blooms, which may include operational changes. We are also participating in research trials seeking to reduce blooms once they happen.

## Further Information on BGA

A range of information including fact sheets on BGA can be found on the Department of Primary Industries' Website: <https://www.dpi.nsw.gov.au/agriculture/irrigation/quality/pubs-and-info/blue-green-algae>