

Gippsland Lakes Blue-green algae update

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Factsheet No 10

What is the current situation?

A blue-green algal bloom of the species *Nodularia spumigena* is still affecting some parts of the Gippsland Lakes.

Recent testing of blue-green algae in the **Paynesville and Eagle Point** areas shows the concentration of algae there has returned to levels that could adversely affect human and animal health on contact with the water.

Signs warning against swimming and other contact with the water have been installed at the following locations:

Paynesville
Eagle Point
Metung
Bunga Arm
Ocean Grange
Steamer Landing

The Lakes Entrance and Jones Bay areas and areas west of Paynesville currently remain at low levels and are safe for recreational water use. Lake Tyers remains free of blue-green algae.

Mussels, prawns and crabs caught anywhere in the Gippsland Lakes are not safe for human consumption. The signs warning people not to eat mussels, prawns or crabs caught in the Lakes will stay in place until testing shows that levels of the toxins in seafood have declined enough to lift the advisory.

The Department of Health has advised that the toxin can affect liver function.

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Can I eat fish caught in the Gippsland Lakes?

Test results show that the toxin is concentrated in the internal organs of fish and that fish which have had gills and guts removed are safe to eat.

Recreational anglers are advised to remove and discard guts and gills from fish prior to cooking.

Fish should not be cooked whole as this will re-distribute toxins from the guts to the fish flesh, making it unsafe for consumption.

Can I eat mussels, prawns or crabs caught in the Gippsland Lakes?

Mussels, prawns and crabs caught in the Gippsland Lakes system continue to remain unsafe for human consumption.

Can I buy and eat seafood from the Lakes?

Licensed commercial fish suppliers are being advised to process fish from affected areas to remove guts and gills prior to sale to consumers.

Most fish landed by commercial fishers at Lakes Entrance are caught out at sea in areas unaffected by this algal bloom.

How else might the algae in Gippsland Lakes affect me?

There are still high levels of blue-green algae at Bunga Arm, Ocean Grange and Steamer Landing. If you come into contact with the water in these areas, you could get skin irritations, respiratory or hayfever-like symptoms. Ingestion of water through swimming may lead to symptoms related to liver function.

The Department of Health advises that contact with the water in these areas should be avoided, particularly in areas where scums and discoloured water are evident. There are signs in place in areas affected by the blue-green algae.

Can I swim and undertake other watersports?

Advisory signs warning against contact with the water have been reinstalled in the Metung, Paynesville and Eagle Point areas and will remain in place until levels of algae there decline. Many other areas across the Lakes are now showing levels of algae that will not affect human health on contact, so swimming and any water sport or activity, including skiing and inflatable tubes and 'donuts' are now safe in those areas (eg. Lakes Entrance, Jones Bay and west of Paynesville). Lake Tyers remains free of blue- green algae.

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What should I do if I come into contact with affected water?

If contact with affected water is made, users should remove any affected clothing and wash themselves thoroughly with clean water after coming ashore. Wetsuits should be thoroughly rinsed before being worn again to remove any traces of algae.

Users who experience any health effects following recreational use of the Lakes should seek medical advice. For further information on health issues contact Department of Health's Environmental Health Unit on 1300 761 874.

Can my dog swim in the Gippsland Lakes?

Dogs and other pets can also be affected, so it is safer not to let them enter the water in areas where there are warning signs in place or discoloured water is evident.

What is being done?

Toxin levels in seafood will continue to be monitored. As soon as testing shows that seafood in affected areas is safe for human consumption, the public will be informed.

The levels of algae in the water will also continue to be monitored on a regular basis. It is still early in the summer season, so the bloom could again return to levels high enough to prevent the recreational use of water in some areas. The public will continue to be informed about any changes in those levels.

The Department of Sustainability and Environment (DSE) is working with a multi-agency Incident Management Team to monitor the situation. Signs have been erected at key sites around the Lakes to advise the public about the health implications of the blue-green algal bloom.

How long will the bloom last?

Tests are being conducted on a regular basis to monitor the type, amount and extent of algae present. There is no definite length of time that the bloom will remain. Once the testing shows the bloom has cleared the message will be relayed to the public.

What other places can I visit in Gippsland?

Contact local Visitor Information Centres at Bairnsdale on 0351 523444 or Lakes Entrance on 0351 552966 or visit www.inspiredbygippsland.com.au for information about areas to visit and activities to pursue in Gippsland.

General information about Blue-green algae

- Blue-green algae (cyanobacteria) are bacterial organisms that undergo photosynthesis, and have some of the characteristics of bacteria and of algae. They can appear singularly or in colonies, and are present in almost all aquatic ecosystems, including creeks, rivers, lakes and wetlands. Individual cells are very small, so blue-green algae can be present in a water-body without being visible.

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- Under certain environmental conditions, numbers can increase rapidly and blooms, or scums, become easily visible across the water surface. The blooms range in colour from dark-green to yellowish brown.
- Blue-green algae rely on sunlight for energy, with their growth rate determined by the level of nutrients available in the water. Unlike other algae they also contain pockets of gas called “vacuoles” which allow them to control their buoyancy. This ability to move within the water column gives blue-green algae an advantage over other organisms in competing for nutrients. However, as soon as the water becomes turbulent, they cannot remain afloat, and this lessens their advantage and so reduces the growth rate.
- Waters that flow slowly with low turbulence are at a particularly high risk of algal blooms. Blooms are likely to form when the water is relatively still, nutrient levels are high and temperatures are warm. When conditions remain favourable, blooms can last weeks to months especially if nutrient levels are high. Cooler, windy weather or increased flow may reduce or stop them fairly quickly.
- When blooms die, the decomposition of the algal cells consumes the oxygen in the water. Breakdown of large blooms can deplete water oxygen levels to the point where fish suffocate. Fish that are dead, dying or swimming erratically should not be handled or consumed. You can report a fish death event to the EPA on 1300 EPA VIC (1300 372 842).
- Blue-green algal blooms typically occur during the summer/autumn period. They have been recorded in the Gippsland Lakes in 1965, 1971, 1974, 1987-88, 1995-96, 1996-97, 1999, 2001, 2002 and 2008/9.

For further information please contact the Department of Sustainability and Environment Customer Service Centre on 136 186 or visit the DSE website:

www.water.vic.gov.au

Useful resources:

NHMRC, 2008, *Guidelines for Managing Risks in Recreational Water*. National Health and Medical Research Council.