

Gippsland Lakes Blue-green algae update

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Factsheet No 11

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 water in Lake Wellington and Lake Victoria has detected levels of blue-green algae that are high enough to warrant the installation of signs warning people not to come into contact with the affected water.

The Department of Health advises that contact with affected water could result in skin irritation and respiratory or hayfever-like symptoms. Toxin produced by the blue-green algae can affect liver function if ingested through affected water or seafood. The water can also affect animals, so pets should not be allowed to swim in it.

Warning signs will be installed at Loch Sport, Marlay Point, Hollands Landing and other locations around Lake Wellington and Lake Victoria.

Signs remain in place at Metung, Paynesville, Eagle Point, Bunga Arm, Ocean Grange and Steamer Landing, where the levels of algae are still well above the trigger levels that can affect human health.

The Department of Health advises that contact with the water in these areas should be avoided, particularly where floating scums, discoloured water or clumps of algae are evident.

Lakes Entrance and Jones Bay remain at low levels and are safe for recreational water use. Lake Tyers is unaffected by the algal bloom.

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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.

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, except in Lake Tyers 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 and seafood landed by commercial fishers at Lakes Entrance are caught in the ocean in areas unaffected by this algal bloom.

How else might the algae in Gippsland Lakes affect me?

There are now high levels of blue-green in Lake King, Lake Victoria and Lake Wellington. 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 installed in the following locations, where swimming and watersports are not recommended:

Loch Sport
Marlay Point
Hollands Landing
Metung
Paynesville

Eagle Point
Bunga Arm
Ocean Grange
Steamer Landing

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Lakes Entrance and Jones Bay remain at low levels of algae and Lake Tyers is not affected by the algal bloom.

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

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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.

- 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.