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## Appendix 1: Results of seafood analysis during Gippsland Lakes bloom – Dec 2011 to March 2012

All results in this appendix are from the Victorian Department of Health website (VicHealth, 2012). Non detections are only included where they provide useful information. Results in bold face exceed the health guideline value.

**Table 8: Black bream**

| Date of collection | Sample location | Nodularin toxin whole black bream µg/kg | Nodularin toxin G&G black bream µg/kg |
|---|---|---|---|
| 07/12/2011 | Point Turner | 16 | - |
| 07/12/2011 | Eagle Bay/ Split Jetties | **43** | - |
| 07/12/2011 | Tambo Bay | **47** | - |
| 21/12/2011 | Eagle Bay | **41** | < 16 |
| 21/12/2011 | Tambo Bay | **52** | < 16 |
| 16/01/2012 | Jones Bay | **111** | < 16 |
| 17/01/2012 | Wattle Point | 20 | < 16 |
| 17/01/2012 | Metung | **203** | < 16 |
| 25/01/2012 | Eagle Bay | 19 | < 16 |
| 30/01/2012 | Tambo Bay | 19 | < 16 |
| 30/01/2012 | Jones Bay | **30** | < 16 |
| 31/01/2012 | Metung | **27.4** | < 16 |
| 06/02/2012 | Wattle Point | **44.4** | - |
| 07/02/2012 | Metung | **54** | < 16 |
| 08/02/2012 | Eagle Bay | **40** | < 16 |
| 10/02/2012 | Waddy Point | **74** | < 16 |
| 13/02/2012 | Tambo Bay | **24** | < 16 |
| 13/02/2012 | Eagle Bay | **39** | < 16 |
| 14/02/2012 | Metung | **28** | < 16 |
| 15/02/2012 | Waddy Point | **145** | < 16 |
| 21/02/2012 | Tambo Bay | 17 | < 16 |
| 21/02/2012 | Jones Bay | **39** | < 16 |
| 27/02/2012 | Waddy Point | **42** | < 16 |
| 06/03/2012 | Bancroft Bay | **25** | < 16 |
| 06/03/2012 | Nungurner | **33** | < 16 |
| 07/03/2012 | Eagle Bay | **32** | < 16 |
| 08/03/2012 | Eagle Bay | 17 | < 16 |
| 13/03/2012 | Jones Bay | 18 | < 16 |

| Date of collection | Sample location | Nodularin toxin whole black bream µg/kg | Nodularin toxin G&G black bream µg/kg |
|---|---|---|---|
| 13/03/2012 | Eagle Bay | **30** | < 16 |
| 19/03/2012 | Jones Bay | 21 | < 16 |
| 19/03/2012 | Tambo Bay | **53** | < 16 |
| 26/03/2012 | Tambo Bay | 17 | < 16 |
| 26/03/2012 | Waddy Point | **28** | < 16 |
| 27/03/2012 | Waddy Point | **32** | - |
| 10/04/2012 | Tambo Bay | 20 | < 16 |
| 23/04/2012 | Tambo Bay | 17 | < 16 |

**Table 9: Black mussels**

| Date of collection | Sample location | Nodularin toxin whole black mussels µg/kg |
|---|---|---|
| 13/12/2011 | Metung Jetty | 36 |
| 13/12/2011 | Nungurner Jetty | **63** |
| 13/12/2011 | Kalimna Jetty | **740** |
| 18/12/2011 | Metung Jetty | **102** |
| 18/12/2011 | Nungurner Jetty | **107** |
| 18/12/2011 | Kalimna Jetty | **506** |
| 05/01/2012 | Metung Jetty | **168** |
| 05/01/2012 | Nungurner Jetty | **170** |
| 05/01/2012 | Kalimna Jetty | **189** |
| 11/01/2012 | Nungurner Jetty | **71** |
| 11/01/2012 | Metung Jetty | **126** |
| 11/01/2012 | Kalimna Jetty | **330** |
| 16/01/2012 | Metung Jetty | **183** |
| 16/01/2012 | Nungurner Jetty | **215** |
| 16/01/2012 | Kalimna Jetty | **338** |
| 30/01/2012 | Metung Jetty | **187** |
| 30/01/2012 | Nungurner Jetty | **306** |
| 30/01/2012 | Kalimna Jetty | **525** |
| 06/02/2012 | Metung Jetty | **149** |
| 06/02/2012 | Kalimna Jetty | **334** |
| 06/02/2012 | Nungurner Jetty | **351** |
| 13/02/2012 | Metung Jetty | **73** |

| Date of collection | Sample location | Nodularin toxin whole black mussels µg/kg |
|---|---|---|
| 13/02/2012 | Kalimna Jetty | **100** |
| 13/02/2012 | Nungurner Jetty | **130** |
| 20/02/2012 | Metung Jetty | **77** |
| 20/02/2012 | Kalimna Jetty | **135** |
| 20/02/2012 | Nungurner Jetty | **249** |
| 27/02/2012 | Kalimna Jetty | **111** |
| 27/02/2012 | Metung Jetty | **241** |
| 27/02/2012 | Nungurner Jetty | **642** |
| 05/03/2012 | Kalimna Jetty | **152** |
| 05/03/2012 | Nungurner Jetty | **274** |
| 05/03/2012 | Metung Jetty | **328** |
| 13/03/2012 | Kalimna Jetty | **88** |
| 13/03/2012 | Nungurner Jetty | **133** |
| 13/03/2012 | Metung Jetty | **188** |
| 19/03/2012 | Metung Jetty | **62** |
| 19/03/2012 | Nungurner Jetty | **121** |
| 19/03/2012 | Kalimna Jetty | **144** |
| 27/03/2012 | Metung Jetty | 34 |
| 27/03/2012 | Kalimna Jetty | 39 |
| 27/03/2012 | Nungurner Jetty | 39 |
| 02/04/2012 | Kalimna Jetty | **64** |
| 02/04/2012 | Metung Jetty | **150** |
| 10/04/2012 | Nungurner Jetty | 34 |
| 16/04/2012 | Nungurner Jetty | 31 |
| 16/04/2012 | Metung Jetty | 40 |
| 16/04/2012 | Kalimna Jetty | **83** |

**Table 10: Prawns collected within the Gippsland Lakes**

| Date of collection | Species | Sample location | Nodularin toxin prawns from within the lakes µg/kg |
|---|---|---|---|
| 13/01/2012 | School Prawns | Gippsland Lakes | **88** |
| 29/01/2012 | School and King Prawns | Nungurner | **299** |
| 06/02/2012 | School Prawns | Nungurner | **102** |
| 13/02/2012 | King Prawns | Cunningham Arm | **75** |
| 13/02/2012 | King Prawns | Bell's Point | **91** |
| 27/02/2012 | King Prawns | Barrier Landing | **111** |
| 06/03/2012 | King Prawns | Nungurner | **77** |
| 06/03/2012 | King Prawns | Cunningham Arm | **77** |
| 14/03/2012 | King Prawns | Nungurner | **56** |

**Table 11: Prawns collected outside of Lakes Entrance**

| Date of collection | Species | Sample location | Nodularin toxin prawns from ocean outside the lakes µg/kg |
|---|---|---|---|
| 30/12/2011 | School Prawns | 6.5 Nautical miles west of Lakes Entrance | 30 |
| 10/01/2012 | School Prawns | Eastern Beach | **124** |
| 15/01/2012 | School Prawns | Eastern Beach | **137** |
| 17/01/2012 | School Prawns | Eastern Beach | **270** |
| 29/01/2012 | School and King Prawns | Eastern Beach Channel | **224** |
| 30/01/2012 | School Prawns | Off Lake Bunga | **81** |
| 30/01/2012 | School Prawns | 2 Nautical miles east of Lake Tyers | **107** |
| 02/02/2012 | School Prawns | Between 0.5 and 2.2 nautical miles east of Lake Tyers | **119** |
| 04/02/2012 | School Prawns | 7 Nautical miles west of Lakes Entrance | **77** |
| 04/02/2012 | King Prawns | 1.5 miles straight out from Lakes Entrance | **107** |
| 04/02/2012 | School Prawns | 11 Nautical Miles east of Lakes Entrance 3.5 fathoms | **130** |
| 06/02/2012 | School Prawns | Lakes Entrance | **98** |
| 16/02/2012 | King Prawns | 2 Nautical miles east of Lakes Entrance | **35** |
| 16/02/2012 | King Prawns | 0.5 Nautical miles east of Lakes Entrance | **55** |
| 16/02/2012 | King Prawns | 5 Nautical miles east of Lakes Entrance | **110** |
| 26/02/2012 | King Prawns | 6.5 Nautical miles east of Lakes Entrance | **44** |
| 27/02/2012 | King Prawns | Eastern Beach Channel | **99** |
| 27/03/2012 | King Prawns | 6 Nautical miles east of Lakes Entrance | **44** |

Many of the locations listed in these tables may be found at:

http://maps.google.com.au/?ll=-37.907908,147.790489&spn=0.197202,0.491638&om=1&t=m&z=12

## Appendix 2: Algal management in New South Wales

These extracts from the NSW Office of Water website provide information on algal management in NSW (http://www.water.nsw.gov.au/Home/default.aspx ).

### Algal management strategy

*In response to the occurrence of the largest recorded blue–green algal bloom in the Darling River in 1991, the NSW Blue–Green Algal Task Force was formed. The Task Force was made up of representatives from a number of key NSW government agencies. In 1992, the Task Force made 30 recommendations to the government which were developed into a comprehensive integrated Algal Management Strategy to minimise the occurrence and impact of algal blooms in New South Wales.*

*The NSW Algal Management Strategy integrated a large number of measures into five key elements: State Algal Contingency Plan; Management of Blooms; Land and Water Management; Education and Awareness Raising; and Research. The Strategy included Algal Contingency Plans to minimise the effects of blue–green algal blooms, and short to medium term measures to control the factors leading to algal bloom development. It also covered short to long term nutrient and water management measures to minimise nutrient inputs to waterways. These measures were strengthened by education and research, and by increasing community awareness. The Strategy involves Catchment Management Authorities, NSW Office of Water and other state government agencies, local government, communities, industry, researchers and landholders.*

*The NSW Algal Management Strategy forms the basis of the work of the Regional Algal Coordinating Committees.*

### NSW State Algal Advisory Group

*The NSW Algal Management Strategy is administered by the NSW State Algal Advisory Group (SAAG) and the nine regional algal coordinating committees.*

*The State Algal Advisory Group provides the over arching policy advice and framework for the management of fresh water and marine blooms. Membership of the State Algal Advisory Group is made up of the relevant NSW State agencies, NSW local government and the Murray Darling Basin Authority.*

*While each member is responsible for a specific area of management and technical information, the NSW Office of Water is the lead agency for water management in NSW and coordinates both the State Algal Advisory Group and the Regional Algal Coordinating Committees*

### Technical Advisory Group

*The Technical Advisory Group (TAG) of the SAAG is a panel of scientists who have expertise in various aspects of the ecology and management of nuisance phytoplankton blooms, in both freshwater and marine environments.*

*Current TAG membership comprises staff from several key NSW government agencies that have roles in the management of nuisance phytoplankton blooms and in protecting the public from the adverse health effects of these blooms: NSW Department of Primary Industries (Office of Water and NSW Food Authority), NSW Health, Office of Environment and Heritage and Sydney Catchment Authority, plus external expertise from universities and local government (University of New South Wales, Macquarie University, Port Macquarie–Hastings Council).*

*The TAG reports its findings to the SAAG, who can incorporate its findings into strategic responses to algal blooms. The TAG will also respond to questions from and report back to the nine Regional Algal Coordinating Committees (RACCs) and their stakeholders on technical issues confronting these RACCs and stakeholders. By these avenues, the TAG aspires to provide relevant and transparent advice to inform algal bloom management across NSW fresh and marine waters.*

**Regional Algal Coordinating Committees (RACC)**

RACC details are available on the NSW Office of Water webpage http://www.water.nsw.gov.au/Water-Management/Water-quality/Algal-information/Algal-contacts/default.aspx#racc .

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