

## SEPTEMBER 2014

This newsletter is sent to General Managers and to Water and Sewer Managers in 103 regional Councils in NSW and also to over 100 contacts in government departments and private industry across Australia.

### WATER DIRECTORATE'S LATEST PUBLICATION

In September we distributed two copies to each financial member council of our updated *Blue-Green Algae Action Flow Chart*. This 2014 poster also supersedes our original 2001 poster.

This poster complements our *Blue-Green Algae Management Protocols* publication distributed to member Councils in April 2014 and is an enlargement of the chart on page 60. This 2014 chart incorporates the alert level framework from Water Quality Research Australia's publication

titled *Management Strategies for Cyanobacteria (blue-green algae): a Guide for Water Utilities; Research Report 74*.

The poster contains a simplified sequence of actions for managing all stages and levels of alert as well as contact details for NSW Regional Algal Coordinating Committees.

A limited number of posters are for sale by downloading an order form from the website at [www.waterdirectorate.asn.au/Bookshop.aspx](http://www.waterdirectorate.asn.au/Bookshop.aspx)

### GOVERNMENT SKILLS AUSTRALIA SURVEY

As previewed in the last two newsletters, a national survey will be undertaken in October and November by Government Skills Australia (GSA) to help the water industry count the number of employees in each of 28 water occupations as defined in the Australian Water Occupations Framework (AWOF)

The purpose of this survey is to build an occupational profile of the water industry which can be used to establish water-specific occupational codes in future censuses of the Australian Bureau of Statistics.

It is imperative that as many councils as possible participate in this national survey. The collection of more accurate employment data will help ensure the water industry is not overlooked, particularly in the development of policies on employment and training, immigration and infrastructure development.

The Water Directorate strongly encourages our member Councils that have not responded to an earlier request to email the contact details of your nominated survey respondent ASAP to Sue Peisley at GSA [S.Peisley@govskills.com.au](mailto:S.Peisley@govskills.com.au)

**Blue-Green Algae ACTION FLOW CHART**  
Alert Level Framework for management of cyanobacteria in drinking water

**Detection of problem by:**

- Visual examination of raw water samples and/or
- Scum is reported on waterbody and/or
- Taste & odour customer complaint received

**Actions:**

- Sample taken for microscopic examination

**Detection levels:**

**LOW ALERT**  
= 500 & < 2,000 cells/mL. Microcystis aeruginosa or a total biovolume of all cyanobacteria < 0.05 & < 0.2 mm<sup>3</sup>/L. Individual species or combined total

**Alert Level 1: MEDIUM ALERT**  
= 2,000 & < 4,500 cells/mL. Microcystis aeruginosa or the total biovolume of all cyanobacteria > 0.2 & < 0.5 mm<sup>3</sup>/L

**Alert Level 2: HIGH ALERT**  
= 4,500 cells/mL. Microcystis aeruginosa or the total biovolume of all cyanobacteria > 0.5 mm<sup>3</sup>/L

**Alert Level 3: VERY HIGH ALERT**  
= > 4,500 cells/mL. Microcystis aeruginosa or the total biovolume of all cyanobacteria > 0.5 mm<sup>3</sup>/L

**Actions: Have another look**

- Regular monitoring is established
- Weekly sampling and cell counts
- Regular visual inspection of water surface for scum particularly adjacent to supply intake

**Actions: Implement integrated management response**

- Notify health authorities as appropriate e.g. Regional PHUs and RACCs
- Increase sampling frequency to 2x weekly at intake and at representative locations in reservoir to establish population growth and spatial variability in source water
- Decide on the issue and type of health assessment or toxin monitoring

**Actions: Assess the significance of the hazard with respect to the local guidelines for toxins (e.g. Australian Drinking Water Guidelines)**

- Obtain advice from health authorities on the potential risk to public health i.e. health risk assessment considering the toxin monitoring data, the sample type and variability of the effectiveness of treatment
- Consider requirement for advice to consumers if the supply is unfiltered
- Continue monitoring as per Alert Level 1
- Toxin monitoring of water supply (finished water) may be required depending upon the advice from health authorities

**Actions: Assess the potential risk immediately if you have not already done so**

- Further notification of health authorities to obtain advice on the health risk for this supply
- May require advice to consumers if the supply is unfiltered
- Toxicity assessment or toxin measurement required for the source water and drinking water supply
- Continue monitoring of cyanobacterial population in the source water as per Alert Level 1
- In the absence of treatment and subject to health risk assessment the implementation of alternative contingency water supply may be required
- Continue toxin monitoring after the cell numbers decline significantly (e.g. for 3 successive zero results)

**Regional Algal Coordinating Committees in NSW**

**Barron Regional Algal Coordinating Committee**  
Technical Coordinator: Warwick Mackenzie - 051 4701 9566 or 0487 791 143 (HomeMoz)  
Phone Liaison: Brian Deane - 020 4641 4032 or 0277 841 118

**Central West Regional Algal Coordinating Committee**  
Technical Coordinator: Simon Hillier - 07 4442 0200  
Coordinator: Mike Lister - Brian Deane - 020 4641 4032 or 0277 841 118  
Phone Liaison: Brian Deane - 020 4641 4032 or 0277 841 118

**Far West Regional Algal Coordinating Committee**  
Technical Coordinator: Tracy Palmer - 081 9331 5624 or 0487 714 988 (HomeMoz)  
Phone Liaison: Brian Deane - 020 4641 4032 or 0277 841 118

**Water Regional Algal Coordinating Committee**  
Technical Coordinator: Stephen James - 081 4974 2571 or 0487 744 414 (HomeMoz)  
Phone Liaison: James Peisley - 020 4744 1392 or 0487 132 511

**Metropolitan and South Coast Regional Algal Coordinating Committee**  
Technical Coordinator: Graham Martin - 02 9426 4079 or 0487 953 016 (HomeMoz)  
Phone Liaison: James Peisley - 020 4744 1392 or 0487 132 511

**Murray Regional Algal Coordinating Committee**  
Technical Coordinator: Graham Martin - 020 4624 9820 (HomeMoz)  
Phone Liaison: Bruce Green - 020 4624 9877  
Coordinator: Sarah McGeach - 020 4624 9116 (Maggie)

**Murrumbidgee Regional Algal Coordinating Committee**  
Technical Coordinator: Graham Martin - 020 4624 9820 or 0487 953 016 (HomeMoz)  
Phone Liaison: Bruce Green - 020 4624 9877 or 0487 482 234  
Coordinator: Sarah McGeach - 020 4624 9116 (Maggie)

**North Coast Regional Algal Coordinating Committee**  
Technical Coordinator: Mike Peisley - 020 4423 0120 (Gail's HomeMoz)  
Phone Liaison: Brian Deane - 020 4641 4032 or 0277 841 118

**Southern Regional Algal Coordinating Committee**  
Technical Coordinator: Graham Martin - 020 4624 9820 (HomeMoz)  
Phone Liaison: Bruce Green - 020 4624 9877 or 0487 482 234  
Coordinator: Sarah McGeach - 020 4624 9116 (Maggie)

**Statewide Algal Technical Advisory Group (Technical expert)**  
Principal Consultant: Dr Lisa Bowling - 020 4142 0279 or 0487 01 963 19 (HomeMoz)

**Statewide Algal Advisory Group (Policy and management)**  
Coordinator/Consultant: Dr Lisa Bowling - 020 4142 0279 or 0487 01 963 19 (HomeMoz)  
Phone Liaison: Bruce Green - 020 4624 9877 or 0487 482 234

\* Alternative threshold definitions for Alert Level 1, 2, 3 have been developed for barron councils, cyanobacterium outbreaks and Murray area - see 2014, 144 MDC (2014) 2011. Reproduced with permission by Water Research Australia from Research Report 74 - Strategies for Cyanobacteria (Blue-green algae) a Guide for Water Utilities (2014) Page 12 and Figure 12 page 20. Blue-green Algae images provided courtesy of Adelaide Damkeeper Council and Tweed Shire Council. Image of Cylindrocapsa provided courtesy of Chester Heights, NSW Office of Water.

Jennifer James, Executive Officer of the NSW Public Sector ITAB has been engaged to assist us with identifying suitable contact people for completing the survey. Please direct your questions to Jennifer James on 02 9499 3168 or to Sue Peisley at GSA on 08 8100 7426.

The survey will take small councils about 10 minutes to complete and large councils approximately 20 minutes.

### **INNOVATION IN WATER SUPPLY AND WASTEWATER AWARD AT THE IPWEA (NSW DIVISION) ANNUAL STATE CONFERENCE, COFFS HARBOUR, 15-17 OCTOBER**

This award is the longest running of the four awards that the Water Directorate sponsors throughout the year and was first presented in 2000.

The award will be presented at the IPWEA NSW Engineering Excellence Awards dinner on Thursday 16 October and we look forward to the announcement of the winner on the night.

The IPWEA conference features an extensive program, including an exhibition space, presentations, concurrent streams of technical papers, peer presentations and workshop sessions. In addition, the Water Directorate will also facilitate a Water Stream at the IPWEA NSW conference on Friday 17 October.

For more information please contact Dina Bonke on 02 8267 3013 or [dina.bonke@ipwea.org](mailto:dina.bonke@ipwea.org).

### **NSW BEST-PRACTICE SEMINARS, SYDNEY, ORANGE, COFFS HARBOUR AND WAGGA WAGGA, STARTING 20 NOVEMBER**

Recently Check Lists for the preparation of the IWCM Strategy and the Strategic Business Plan were released. These Check Lists follow on from the streamlining of the *NSW Best Practice Management of Water Supply and Sewerage* requirements.

The development of the Check Lists, in addition to NSW Government announcements regarding new initiatives for Regional Water Security and a proposed \$1000M Regional Water Fund, means that a series of NSW best-practice seminars are being held in regional centres.

These seminars commence with a half day Overview Session recommended for Mayors, councillors, general managers and finance directors. The full seminars are recommended for engineering directors, water and sewerage managers, engineers and staff involved with urban water.

The seminars are structured as a forum so as to engage urban water industry leaders in regional NSW, to drive productivity improvement and to continue NSW leadership in developing and implementing appropriate, affordable and cost-effective water supply and sewerage services.

The seminars will also address the streamlined requirements of the Best-Practice Management Framework and the tools, systems and processes developed to achieve best practice in total asset management, including sound financial planning and pricing.

The Overview Session is free and includes lunch. The full 2-day seminar costs \$590 per person and includes lunch and dinner. It is strongly recommended that you attend these sessions by registering early.

The strategic benefits and the insights provided are highly valuable for LWUs to continue achieving sound and affordable water supply and sewerage services for their communities. For details please contact Roshan Iyadurai on [Roshan.Iyadurai@dpi.nsw.gov.au](mailto:Roshan.Iyadurai@dpi.nsw.gov.au)

### **STAKEHOLDER REVIEW WORKSHOP GUIDANCE AND INFORMATION FOR RECYCLED WATER MANAGEMENT, WAGGA WAGGA, 23 OCTOBER**

NOW approves recycled water schemes for LWUs under s60 of the *Local Government Act 1993* or s292 of the *Water Management Act 2000*. Since 2007, NOW has required that LWUs undertaking recycled water schemes produce a recycled water management plan that addresses the 12 elements of the framework in the *Australian Guidelines for Water Recycling 2006*.

NOW in consultation with NSW Health, is developing a series of documents to streamline the approval process, support the implementation of the AGWR and promote the safe and reliable management of recycled water.

These documents include *Guidelines for Recycled Water Management Systems*, similar in format and substance

to *Guidelines for Drinking Water Management Systems 2013*, plus a series of information sheets.

NOW is seeking stakeholder feedback on the draft guidance and information sheets. A second workshop on 25 November at Orange will be held if there is sufficient interest. There is no charge and lunch and refreshments will be provided.

NOW invite persons closely involved with seeking approvals or in the planning, operation or maintenance of recycled water schemes such as water and wastewater engineers and managers, environmental health officers or operational and technical staff. For details please contact Nanda Altavilla [nanda.altavilla@dpi.nsw.gov.au](mailto:nanda.altavilla@dpi.nsw.gov.au)

### **REGISTRATIONS ARE NOW OPEN FOR AWA NORTHERN REGIONAL CONFERENCE, TAMWORTH, 9 OCTOBER**

This year's conference examines the complexities and challenges in planning and managing water systems during droughts, floods and changing regulatory environments.

A focused program covers advances in Cyanobacteria knowledge management, implementing drinking water management plans, experiences in emergency management and technological advances, and recycled water regulation and projects. Delegates can also tour Westdale STP.

An operator training workshop will be held on 10 October based upon the National Water Training Package subject NWP279 – Risk Management Principles of the ADWG which is a compulsory unit of competency in the proposed National Certification Framework for Water Treatment.

### **EXECUTIVE COMMITTEE**

The remaining meeting dates in 2014 are 12 and 13 November to hold a Workshop, AGM and Executive Committee Meeting. All members are welcome to attend the AGM. An AGM notice and proxy form will be mailed out soon.

Gary Mitchell  
Executive Officer

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