

# Explanatory notes and instructions

## Drinking Water Quality: Quarterly Report

February 2011

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## Drinking Water Quality: Quarterly Report

### ***Water Supply (Safety and Reliability) Act 2008—section 630***

These explanatory notes are to assist in the completion of the paper based or the interactive PDF Drinking Water Quality: Quarterly Report Form.

Note—these instructions do not apply if you choose to use the Drinking Water Quality: Quarterly Reporting Application. This is an electronic version of the quarterly reporting form.

You are required to complete and submit this notification form in either format to provide information to the regulator summarising monitoring results for the reporting period under section 630 of the *Water Supply (Safety and Reliability) Act 2008* (the Act).

The terms and definitions, as defined in the Act and used in the notification form, are provided in Appendix A to these notes.

Before completing the notification form, you should familiarise yourself with the relevant sections of the legislation affecting your drinking water service. The legislation can be viewed at the Office of the Parliamentary Counsel website at <[www.legislation.qld.gov.au](http://www.legislation.qld.gov.au)>.

To access an electronic copy of the Act:

1. Go to the website (this can be done by holding down the control key and clicking on the hyperlink above or manually typing in the address in the web browser).
2. Click on the Acts, SL as in force heading.
3. Click on W and scroll down the list of Acts to *Water Supply (Safety and Reliability) Act 2008*.
4. Click on *Water Supply (Safety and Reliability) Act 2008* to open the document. Note—as the document is in PDF format, you will need to have Acrobat Reader installed on your computer to view it.
5. Follow steps (2) to (4) to access other legislation or regulations.

Copies of Queensland legislation are also available from the Queensland Government Bookshop—phone toll free 13 QGOV (13 74 68).

### **Purpose of the Drinking Water Quality: Quarterly Report Form**

**Use this form to provide the regulator with a summary of monitoring results for the quarter based on a defined list of parameters.**

Note—the Drinking Water Quality: Quarterly Reporting Form is required until an approved Drinking Water Quality Management Plan is in place.

## Instructions for completing the form

Note—you are required to complete a separate form for each drinking water scheme.

This notification form can be completed by hand or by using the interactive PDF.

If completing the notification form by hand, please:

- print neatly in BLOCK LETTERS
- use a black ballpoint pen only
- do not use correction fluid or tape
- initial any alterations
- ensure the relevant boxes are ticked and leave all other boxes blank
- complete all relevant sections of the notification form.

If additional information is provided, please use separate sheets and attach them to the form.

If completing the interactive PDF form, please:

- ensure the relevant boxes are ticked and leave all other boxes blank
- complete all relevant sections of the notification form.

Should you have any queries when completing this notification form, please contact the Office of the Water Supply Regulator on 07 3247 0375 during business hours Monday to Friday.

### 1. Quarterly reporting period

When completing this section, please indicate by putting  in the box provided next to the year and quarter you are reporting on. Note—a new form for each scheme must be completed for each quarter.

This report must be received by the regulator by the dates listed in the following table:

Period	Due date
1 January to 31 March	30 April (same year)
1 April to 30 June	31 July (same year)
1 July to 30 September	31 October (same year)
1 October to 31 December	31 January (following year)

### 2. Drinking water service provider details

#### Drinking water service provider

Please enter your registered service provider name as per the regulator's service provider register.

#### Service provider identification (SPID) number

Please enter your registered SPID number on the form in the boxes provided. Your SPID number can be obtained from the monitoring notice and/or previous correspondence.

#### Drinking water scheme

Please enter the name of the drinking water scheme to which this quarterly report relates. The definition of a drinking water scheme is available in Appendix A. Alternatively please refer to the Water Quality and Reporting Guideline for a Drinking Water Service available on the Department of Environment and Resource Management's (the department) website <[www.derm.qld.gov.au](http://www.derm.qld.gov.au)> for a more detailed explanation.

#### Name of town/s, communities or regions serviced by this scheme

Please enter the name of the town/s, communities or regions serviced by this scheme.

## Population served by this scheme

Please estimate the total population (i.e. number of people) supplied with drinking water from the scheme.

## 3. Contact details

### Contact person (for this quarterly report)

This is the first person who will be contacted by the regulator in relation to the information provided in your quarterly report. Details to be provided include:

- the name of the contact person
- the title of the position occupied by the contact person within your organisation
- phone, fax and mobile numbers and postal and email address details of the contact person to enable the regulator to contact them.

## 4. Quarterly monitoring results

### Defined list of parameters for quarterly reporting

The defined list of parameters applies to source water and drinking water. If a parameter from the defined list is included in your routine monitoring program you must include these results in your quarterly report for the drinking water service. There is no obligation to commence monitoring for parameters listed on the defined list if they do not form part of your routine monitoring unless this is a requirement of the Public Health Regulation 2005.

The defined list has been included in Appendix C.

### Scheme component key

This section lists the abbreviations that should be used when filling out the quarterly monitoring results table.

### Quarterly monitoring results table

Note—the results to be entered into this table apply only to your routine monitoring program. You do not have to include results from any additional follow-up samples (for example, investigative sampling resulting from an incident).

**Parameter**—please indicate the name of each parameter that has been tested in the quarter from the defined list.

**Scheme component**—please use the abbreviation from the scheme component key to indicate where monitoring occurred (for example, source water = SW).

**Source water (SW)**—results reported here should be representative of the untreated source water quality.

The actual location of sampling points will depend on the individual conditions of the scheme (for example, samples may be taken at the offtake from the water source or from the raw water entering the water treatment plant).

For schemes with more than one source water, if each source is monitored individually, results from each individual source should be reported.

**Water treatment plant (WTP)**—results reported here should be representative of the final treated water leaving the water treatment plant following satisfactory completion of all treatment, mixing and contact with disinfectant and other treatment chemicals

**Transmission (T)**—results reported here should be representative of water in the bulk transfer pipeline system which transmits water to the reticulation system.

The results reported should be a compilation of all locations at which water is sampled. It is not expected that the drinking water service provider would report on a single sampling point unless that point is the only one within the transmission system.

Sampling from the transmission may not be applicable to all drinking water service providers.

**Reticulation (R)**—results reported here should be representative of the quality of water supplied to customer's taps in a town, community or region.

The results reported should be a compilation of all the locations at which water is sampled. It is not expected that the drinking water service provider would report on a single sampling point unless that point is the only one within the reticulation system.

**Name of scheme component**—list the name of each scheme component within the drinking water service. For example, name of source water (Spring Creek Dam, Spring Creek Bore), water treatment plant (East Spring Creek WTP, West Spring Creek WTP) or reticulation system (Spring Creek Village, Upper Spring Creek and Spring Creek Region).

**Laboratory name**—please indicate where the testing of the parameter was performed (for example, in-house laboratory or name of external laboratory). An in-house laboratory can be located at your water treatment plant with testing being carried out by water treatment plant staff or it can be a dedicated water testing laboratory within your organisation staffed by qualified scientists. An external laboratory may, for example, be Queensland Health Forensic and Scientific Services.

**Unit of measure**—state the unit of measure. This is a way of describing a concentration of a substance in a volume of sample (for example, mg/L). The unit of measure is specified on the report you receive from the laboratory.

**Limit of reporting (LOR) for chemical parameters**—record the minimum concentration of a substance in a sample that can be reliably detected by a laboratory (for example, 0.1mg/L). The LOR is often specified on the report that is received from the laboratory. If unsure, please consult the laboratory where the testing was performed.

**Total number of samples taken**—record the total number of samples taken for each parameter in each individual scheme component over the quarterly reporting period. If data is from an online analyser, please write online in the space provided.

**Number of samples in which the parameter was detected**—for all samples taken over the quarterly reporting period, indicate the number of samples in which the parameter was detected (i.e. the number of samples in which the result was greater than the LOR).

**Number of samples exceeding health guideline value or in which pathogens were detected**—for all samples taken over the quarterly reporting period, calculate and record the number of samples that exceed the health guideline value specified in the Australian Drinking Water Guidelines (ADWG) for each individual parameter.

**Minimum concentration or count**—for all samples taken over the quarterly reporting period, calculate and record the lowest concentration or count for each individual parameter.

**Maximum concentration or count**—for all samples taken over the quarterly reporting period, calculate and record the highest concentration or count for each individual parameter.

**Average (mean) concentration or count**—for all samples taken over the quarterly reporting period, calculate and record the average (mean) for each individual parameter. When calculating the average (mean) assume that any result that is less than the LOR (for example, <1) to be zero.

The table below provides examples of minimum, maximum, average and the number of samples exceeding health guideline value.

Name of scheme component:		Spring Creek Village			
Quarter 1					
	Date of sample taken	Parameter	Unit of measure	Result	Australian Drinking Water Guidelines (ADWG) Health guideline value = 2mg/L
1	2/01/2009	Copper	mg/L	<0.1	
2	9/01/2009	Copper	mg/L	1.5	
3	16/01/2009	Copper	mg/L	<0.1	
4	23/01/2009	Copper	mg/L	<0.1	
5	1/02/2009	Copper	mg/L	0.8	
6	8/02/2009	Copper	mg/L	1.2	
7	15/02/2009	Copper	mg/L	2.5	Exceeds ADWG
8	22/02/2009	Copper	mg/L	0.6	
9	1/03/2009	Copper	mg/L	3.1	Exceeds ADWG
10	8/03/2009	Copper	mg/L	<0.1	
11	15/03/2009	Copper	mg/L	<0.1	
12	22/03/2009	Copper	mg/L	<0.1	
13	29/03/2009	Copper	mg/L	1.9	

Total number of samples = 13

Number of samples in which the parameter was detected = 7

Minimum (concentration or count) = <0.1 mg/L

Maximum (concentration or count) = 3.1 mg/L

Average (mean) = 0.9 mg/L =  $\frac{(0 \times 6) + 1.5 + 0.8 + 1.2 + 2.5 + 0.6 + 3.1 + 1.9}{13}$

Number of samples exceeding ADWG health guideline value = 2

## 5. Compliance with Public Health Regulation 2005 for *Escherichia coli* (*E. coli*) monitoring in the reticulation system

This table is used to record specific details in relation to your monthly monitoring during the quarterly reporting period for *E. coli* in the reticulation system only.

Section 5.1—record the month and year for when the monitoring took place (for example, Feb/09).

Section 5.2—record the total number of samples taken in that month.

Section 5.3—if *E. coli* was detected in any samples, record the number of samples in which it was detected.

Note—for *E. coli*, refer to the *Escherichia coli* (*E. coli*) monitoring guidance notes page 8, Table 1 for the minimum requirements for routine testing in a reticulation system.

## 6. Comments

This section can be used to provide any additional comments relating to the scheme's monitoring and reporting for the quarter.

## 7. Declaration

This notification form is to be signed and dated on the day of completion by an officer with appropriate authority to sign on behalf of the drinking water service provider, prior to submitting it to the regulator. In signing this form you are declaring that the information is true and accurate.

## 8. Submission

The notification form is to be submitted to the regulator by post, fax or email by close of business of the due date for the reporting period—refer to section 1 of these explanatory notes for the due dates. The return post, fax and email details are located on the form.

Paper based notification form—the paper notification form can be submitted either by post, fax or emailed as an attachment.

Interactive PDF notification form—the PDF must be printed for signing. To submit the completed form electronically, the hard copy must be scanned and emailed as an attachment.

## Appendix A

### Definitions from the *Water Supply (Safety and Reliability) Act 2008 (the Act)* and terms used in the *Water Quality and Reporting Guideline for a Drinking Water Service*

**approved drinking water quality management plan** means a drinking water quality management plan approved by the regulator under Chapter 2, part 4, division 3.

**Australian Drinking Water Guidelines (ADWG)** provides advice on the types of parameters, monitoring methodology, sampling locations and sampling frequency that should be considered.

**current monitoring program** means a routine monitoring program for your drinking water scheme.

**drinking water—**

1. Drinking water means water, for human consumption, intended primarily as water for drinking, whether or not the water is used for other purposes.
2. Drinking water does not include—
  - (a) water that is food as defined under the *Food Act 2006*; or
  - (b) water taken or supplied for domestic purposes under the *Water Act 2000*.

**drinking water scheme** means infrastructure owned by a drinking water service provider for single or multiple combinations of the individual components of treatment, transmission, reticulation, or the storage of recycled water to augment a drinking water supply.

**drinking water service** means a water service that is—

- (a) the treatment, transmission or reticulation of water for supply as drinking water; or
- (b) water collection in a water storage, if the water in the storage—
  - (i) includes recycled water, other than coal seam gas water; and
  - (ii) is used to augment a drinking water supply.

**drinking water service provider** means a water service provider for a drinking water service.

**Public Health Regulation** is the subordinate legislation to the *Public Health Act 2005* and is administered by Queensland Health.

**regulator** is the chief executive of the Department of Environment and Resource Management (the department).

**Service Provider Identification (SPID) number** is a number generated through the department's Water Industry Compliance Database (WICD) to identify the service provider.

**Water Quality and Reporting Guideline for a Drinking Water Service** is a regulatory guideline prepared by the regulator under the *Water Supply (Safety and Reliability) Act 2008*.

**water quality criteria—**

- (a) for drinking water, means all of the following—
  - (i) the standards for the quality of drinking water prescribed in a regulation under the *Public Health Act*
  - (ii) the criteria stated in a guideline, if any, made by the regulator about the quality of drinking water
  - (iii) the criteria for the quality of drinking water stated in a condition applying to a drinking water quality management plan.

**water service provider** means a person registered under Chapter 2, part 3, as a service provider for a water service.

#### **s 20 Who must apply for registration as a service provider**

1. The following persons must, before starting to operate as the supplier of a water service, apply for registration as a service provider—
  - (a) a local government that owns infrastructure for supplying water or sewerage services
  - (b) a water authority that owns infrastructure for supplying water or sewerage services
  - (c) each person who is—
    - (i) the owner of 1 or more elements of infrastructure for supplying water or sewerage services for which a charge is intended to be made; or

- (ii) if a person is nominated in a regulation as a related entity of a person mentioned in subparagraph (i)—the person nominated.
- 2. However, subsection (1) does not apply to a person who owns infrastructure that produces and supplies recycled water, or that supplies recycled water that is coal seam gas water, unless the person also owns other infrastructure for supplying a water or sewerage service.

## Appendix B

# Fluoridated Water Quarterly Report

*Water Fluoridation Act 2008* and *Water Fluoridation Regulation 2008*—section 11

These explanatory notes will assist you as a drinking water service provider (provider) to determine if you need to complete the attached form—Fluoridated Water Quarterly Report.

A provider that adds fluoride to their drinking water supply is required to report monitoring results to Queensland Health under section 11 of the *Water Fluoridation Regulation 2008* and to the regulator under section 630 of the Act.

To allow you to meet both legislative reporting requirements, this form has been included with the Drinking Water Quality: Quarterly Report Form. If you add fluoride to your drinking water supply, you need to:

- complete the Fluoridated Water Quarterly Report Form
- submit the completed form to the regulator, with your completed Drinking Water Quality Quarterly Report Form, by the due date for the reporting period—refer to section 1 of these explanatory notes.

The regulator will provide a copy of the completed Fluoridated Water Quarterly Report Form to Queensland Health on your behalf.

Before completing the form, you should familiarise yourself with the relevant sections of the legislation affecting your drinking water service. The legislation can be viewed at the Office of the Parliamentary Counsel website at [www.legislation.qld.gov.au](http://www.legislation.qld.gov.au).

To access an electronic copy of the legislation follow the steps detailed on page 1 of these explanatory notes.

Copies of Queensland legislation are also available from the Queensland Government Bookshop—phone toll free 13 QGOV (13 74 68).

## Purpose of the Fluoridated Water Quarterly Report Form

**Use this form if you add fluoride to your drinking water supply, to provide the regulator, and Queensland Health via the regulator, with a summary of fluoride monitoring results for the quarterly reporting period.**

Water Fluoridation Code of Practice states:

In order to reduce the administrative burden on fluoridation plant managers, the Office of the Water Supply Regulator (OWSR) has agreed to receive quarterly reports from water suppliers as part of the mandatory water quality reporting requirements under Section 630 of the *Water Supply (Safety and Reliability) Act 2008*. OWSR will then pass these reports on to Queensland Health. This process will satisfy the reporting requirements of the *Water Fluoridation Regulation 2008*.

Note—completion of this form is not required if you do not add fluoride to your drinking water supply. However, if naturally occurring fluoride is monitored as part of your monitoring program, the results must be reported in the Drinking Water Quality: Quarterly Report Form section 4.

Should you have any queries when completing this form, please contact Queensland Health on telephone number 07 3328 9310 during business hours Monday to Friday or refer to the Queensland Health Water Fluoridation Code of Practice.

## Appendix C

### Defined List of Parameters for Quarterly Reporting

The attached list outlines defined drinking water quality parameters to be included in your routine report for each quarter for your drinking water service.

You must:

- monitor and report on *Escherichia coli* (*E. coli*) as specified in the Public Health Regulation 2005.

If the following parameters are included in your routine monitoring program you must include these results in the quarterly report for the drinking water service. There is no obligation to commence monitoring for parameters listed below if they are not part of your routine monitoring program.

Parameter/parameter grouping	Source water <sup>1</sup>	Drinking water <sup>2</sup>
Anions (nitrate, nitrite, sulphate)	✓	✓
Counts of potentially toxic cyanobacteria <sup>3</sup>	✓	
Cryptosporidium	✓	✓
Cyanide	✓	✓
Cyanobacterial toxins	✓	✓
Disinfection by-products <sup>4</sup>		✓
Disinfectant residual <sup>5</sup>		✓
<i>Escherichia coli</i> ( <i>E. coli</i> )		✓

<sup>1</sup> For reporting purposes source water is water supplied to the provider's drinking water service and includes but is not limited to surface water, groundwater (artesian, sub-artesian), seawater.

<sup>2</sup> For reporting purposes drinking water has the meaning defined in the *Water Supply (Safety and Reliability) Act 2008*. It includes water supplied by the drinking water service provider for human consumption irrespective of the level of treatment.

<sup>3</sup> For example, *Microcystis aeruginosa*, *Anabaena circinalis*, *Aphanizomenon ovalosporum*, *Cylindrospermopsis raciborskii*.

<sup>4</sup> Reporting is only required if disinfection is undertaken. A comprehensive listing of disinfection by products is available in the Australian Drinking Water Guidelines. The guidelines can be accessed from [www.nhmrc.gov.au/publications/synopses/eh19syn.html](http://www.nhmrc.gov.au/publications/synopses/eh19syn.html).

<sup>5</sup> For example, chlorine (free), monochloramine.

Parameter/parameter grouping	Source water <sup>1</sup>	Drinking water <sup>2</sup>
Fluoride <sup>6</sup>	✓	✓
Giardia	✓	✓
Geosmin/ 2-methylisoborneol (MIB)		✓
Metals (arsenic, aluminium (acid soluble), antimony, barium, boron, cadmium, chromium, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, silver, uranium, zinc)	✓	✓
Pathogens (other bacterial, viral and protozoan pathogens)	✓	✓
Pesticides <sup>7</sup>	✓	✓
pH		✓
Polycyclic aromatic hydrocarbons (benzo-(a)-pyrene)	✓	✓
Radionuclides	✓	✓
Turbidity	✓	✓

<sup>6</sup> Monitoring may be undertaken in the source water to assess naturally occurring levels. Monitoring must be undertaken in drinking water that adds fluoride as specified in the Water Fluoridation Regulation 2008 and the Public Health Regulation 2005.

<sup>7</sup> For reporting purposes pesticides include agricultural chemicals such as insecticides, herbicides, nematicides, rodenticides and miticides as listed in the Australian Drinking Water Guidelines. The Office of the Water Supply Regulator has determined that quarterly reporting of pesticide monitoring can be summarised as follows:

- All positive detections of pesticides must be reported to the regulator individually and in full.
- All analyses that return nil results for pesticide compounds (i.e. less than the limit of reporting) can be summarised and reported as total pesticides with zeros entered for maximum, minimum and average concentration.
- Details as to the number of samples taken during the quarter, sample location and the laboratory carrying out the analyses should still be included.