

2005/2006 Annual report format

Drinking Water Regulation Guidance Note No. 6
June 2006

Introduction

Section 26 of the *Safe Drinking Water Act* 2003 requires that water suppliers and water storage managers provide the Secretary to the Department of Human Services with a report each financial year. This report is to cover issues relating to the quality of drinking water and the management of regulated water.

What to include in the annual report

The required content of the annual report is detailed in regulation 15 of the Safe Drinking Water Regulations 2005. The following guidance information provides additional detail on the required content under the various sub-regulations of regulation 15.

A review of 2004/2005 annual reports found that the majority of water businesses generally followed the structure detailed in the 2004/05 DHS guidance note. Reports that generally followed the guidance note were easier to assess for compliance with regulation 15.

The Drinking Water Regulatory Section has revised the guidance information for 2005/2006, based on the outcome of this review and the finalisation of the Regulations.

Content

The 2005/2006 annual report is required to cover the period from 1 July 2005 to 30 June 2006. The report is required to provide information on the following areas:

- Characterisation of the system
- Sources of drinking water
- Water treatment and disinfection
- Water quality results (*water supplier only*)
- Emergency management
- Customer Complaints related to water quality (*water supplier only*)

The attached guidance information "Water supplier 2005/2006 annual report content guide" (Attachment 1) and "Water storage manager 2005/2006 annual report content guide" (Attachment 2) provides an overview of the information that is required in the annual reports, along with recommended presentation formats. It should be noted that the information in Attachments 1 and 2 should be considered as a minimum, and water suppliers and water storage managers are encouraged to add additional information that they believe will aid in the understanding of issues related to their management of drinking water quality.

Lodgement of annual report

A draft 2005/2006 annual report should be submitted 4-6 weeks prior to the final lodgement date to allow for the report to be reviewed for compliance with regulation 15.

The final report must be received by DHS no later than 31 October 2006. The report must also be made available to the public on or after the day it is made available to DHS.

DHS requests that one (1) hard copy and one (1) electronic copy of the final report, in a pdf format, be submitted. Please forward hard copy annual reports to:

Jan Bowman
Assistant Director Environmental Health
Department of Human Services
GPO Box 4057
MELBOURNE VIC 3001

Please email the electronic copy to: dwru@dhs.vic.gov.au

Further information

Ph: (03) 9096 5647

Fax: (03) 9096 9182

Website: www.health.vic.gov.au/environment/water/drinking

Published by Drinking Water Regulatory Section
Victorian Government Department of Human
Services, Melbourne, Victoria.

June 2006

© Copyright State of Victoria, Department of
Human Services, 2006

Authorised by the State Government of Victoria,
50 Lonsdale Street, Melbourne

[Department of Human Services](#)

Attachment 1

Water Supplier 2005/2006 annual report content guide
June 2006

1 Introduction

Suggested information for this section may be aims and objectives of the business, and/or an overview of the business.

1.1 Characterisation of the System

Provide an overview of the water supply systems operated by the business, either from catchment to tap, or for the portion of the water supply system controlled by the business. The inclusion of a map of the water supply system(s) or the business' area of operation is recommended. Process control schematics and information on rarely used infrastructure are not required.

1.1.1 Source of water

Provide information on where the water is sourced from for each water sampling locality. Presenting the information in a tabulated format, as is shown Table 1.1 below, is recommended.

In some cases, Source Water and Storage may be the same. Source Water and Storage would be separate in the circumstance where raw water is abstracted from a water course and placed in a water storage area, prior to treatment. If the business does not operate separate water storage areas, just providing details of the source waters will be sufficient.

Table 1.1: Example table for water source

Water Sampling Locality or Water Supply System	Source Water	Storage	Treatment Plant	Population Served

In the accompanying text, please highlight any major changes between the arrangements for water supply as detailed in last year's report as compared to the arrangements detailed in the current report.

If it is convenient to do so, the information contained in Table 1.1 can be combined with the information requested in Table 2.1 below, and presented as a single table.

Regulation 4 of The Safe Drinking Water Regulations 2005 allows for various areas or zones of supply to be specified as water sampling localities by the publication of a notice in the Government Gazette. During the reporting period, no water sampling localities were specified. In order to have consistency between the reporting process and the Regulations it is requested that the various areas or zones of supply be identified as water sampling localities.

During the period covered by this report there may be several instances where water sampling localities have either been merged or split into separate water sampling localities. Water quality information is to be reported for each separate water sampling locality until the merger/split, and then on the merged or split water sampling localities for the remainder of the reporting period.

Information on the dates of the merger/split are to be included, either as a footnote to the table, or in accompanying text.

2 Quality Management System

2.1 Water Treatment

The sections of the Safe Drinking Water Regulations that refer to water treatment are:

- 15 (1) (h) "a summary of the process by which the drinking water supplied by the water supplier is disinfected or treated and any other processes applied to the water by the water supplier,"
- 15 (1) (i) "a list of all the chemicals and other substances, and any other processes, used by the water supplier to disinfected and or treat the drinking water supplied by it;"

Please include information describing the regular treatment processes, along with any periodic treatment activities, for each water supply system, from the point the raw water enters the water treatment plant, through to the customer tap.

It is recommended that information on the treatment processes and the chemicals associated with those processes be presented in a tabular form (see Table 2.1), along with explanatory text that briefly describes each treatment process and chemical additive. The explanatory text can be presented as a glossary of terms at the end of the report.

If it is convenient, the information contained in Table 2.1 below can be combined with the information requested in Table 1.1 above, and presented as a single table.

Table 2.1: Example table for water treatment

Water Sampling Locality or Water Supply System	Treatment process	Added substances	Comments
Eg. Town abc	Chlorination Fluoridation	Chlorine gas Fluoride	

In the accompanying text, please highlight any major changes between the water treatment processes detailed in last year's report as compared to the processes detailed in the current report.

2.1.1 Issues

Sub-regulation 15 (1) (h) requires discussion of any issues arising out of the processes used to disinfect or treat drinking water. Examples of issues arising are if the treatment or disinfection process is inadequate to address an identified water

quality risk, or if the treatment process is not capable of always delivering drinking water that is compliant with the water quality standards.

In the event that an issue identified in this section has been reported as a section 22 notification under the Act, this must also be included in the Emergency/Incident Management section of the annual report. There should be an acknowledgement of these notifications in this section and a cross reference to the Emergency/Incident Management section.

If there are no issues, please indicate that this is the case. If there are issues, please summarise, preferably in a tabulated form.

3 Water quality for 2005/2006

Regulation 15 (1) (a) requires information evidencing compliance or non-compliance (as the case requires) with regulations 10, 11 and Schedule 2. Regulation 10 (a) refers to the water quality standards detailed in Schedule 2. Regulation 10 (b) refers to ensuring that the water is free of other toxins, pathogens substances or chemicals that may pose a risk to human health. Regulation 11 refers to collecting samples at the required sampling frequency.

Regulation 10 (a) and Schedule 2

Table 3.1 details the water quality standard for each parameter as stated in Schedule 2 of the Regulations. Table 3.1 also details the number of decimal places and rounding rules that are to be reported for each parameter. All chemical results are to be reported in milligrams per litre (mg/L).

The rounding rules that are to be applied to the data are those that appear in the 20th Edition of APHA's Standard Methods for the Examination of Water and Wastewater, which are: If the digit 6, 7, 8 or 9 is dropped, increase preceding digit by one unit; if the digit 0, 1, 2, 3 or 4 is dropped, do not alter the preceding digit. If the digit 5 is dropped, round off preceding digit to the nearest even number: thus 2.25 becomes 2.2 and 2.35 becomes 2.4.

If there are results in the data set that are below the level of detection, and have been recorded as a less than (<) result, then the < result is to be reported.

When presenting the water quality results, it is requested that the frequency of sampling and the water quality standard for each relevant parameter, as detailed in Schedule 2 of the regulations, be included, on or above tables of data, to assist readers in better understanding the meaning of the data. This can be done individually within the sub-heading of each parameter or combined in a table similar to Table 3.1.

The results can be either grouped by parameter or by water sampling locality.

Table 3.1: Schedule 2 Drinking Water Quality Standards reporting format for the 2005/06 annual report

Parameter	Relevant sampling frequency per water sampling locality	Water Quality Standard	Presentation of results	Examples
<i>E. coli</i>	Weekly	At least 98% of all samples of drinking water collected in any 12 months period to contain no <i>E. coli</i> per 100mL	Percentages to be expressed to one decimal place.	97.5% and above is compliant. 97.4% and below is non-compliant.
Chloroacetic acid	Monthly	Must not exceed 0.15 mg/L	Results to be expressed to three decimal places.	Results of 0.155 mg/L and greater are non-compliant, results of 0.154 mg/L and less are compliant.
Dichloroacetic acid	Monthly	Must not exceed 0.1 mg/L	Results to be expressed to three decimal places.	Results of 0.145 mg/L and greater are non-compliant, results of 0.144 mg/L and less are compliant.
Trichloroacetic acid	Monthly	Must not exceed 0.1 mg/L	Results to be expressed to three decimal places.	Results of 0.145 mg/L and greater are non-compliant, results of 0.144 mg/L and less are compliant.
Trihalomethanes	Monthly	Must not exceed 0.25 mg/L	Results to be expressed to three decimal places.	Results of 0.255 mg/L and greater are non-compliant, results of 0.254 mg/L and less are compliant.
Bromate	Monthly	Must not exceed 0.02 mg/L	Results to be expressed to two decimal places.	Results greater than 0.02 mg/L are non-compliant, results of 0.02 mg/L and less are compliant.
Formaldehyde	Monthly	Must not exceed 0.5 mg/L	Results to be expressed to one decimal place.	Results of 0.55 mg/L and greater are non-compliant, results of 0.54 mg/L and less are compliant.

Aluminium	Monthly	Must not exceed 0.2 mg/L	Results to be expressed to two decimal places.	Results of 0.25 mg/L and greater are non-compliant, results of 0.24 mg/L and less are compliant.
Turbidity	Weekly	95% Upper confidence limit of the mean* of drinking water samples collected in the preceding 12 months must be ≤ 5.0 NTU	Results to be expressed to one decimal place. Calculations to be performed on raw data and rounding to one decimal place to occur once the upper confidence limit has been calculated.	95% UCL results of 5.05 NTU and greater are non-compliant, 95% UCL results of 5.04 NTU and less are compliant.

* To calculate the 95 % upper confidence limit (UCL) of the mean for the previous 12 months turbidity data the following formula can be used:

$$95\% \text{ UCL} = \text{mean} + \frac{t(a)*s}{\sqrt{N}}$$

Where:

s = standard deviation

t(a) = student t statistic where: degrees of freedom is number of samples – 1; and probability is 0.05. This can be calculated from statistical tables using the 2P values for 0.05 (a two-tailed test). These calculations are made easier using web based programs such as surfstat that can be found on the website:

<http://www.anu.edu.au/nceph/surfstat/surfstat-home/tables/t.php>.

Eg. 52 samples equates to a degrees of freedom of 51, and using the 0.05 probability the t value equals 2.008.

N = Number of turbidity samples

When presenting the results for the Schedule 2 water quality parameters measured at customer taps, it is suggested that the following subheadings be used: *Escherichia coli* (*E. coli*), chlorine based disinfection byproduct chemicals, ozone based disinfection byproduct chemicals, aluminium and turbidity. Information is also required on the frequency of sample collection in order to assess compliance with Regulation 11. The suggested format for displaying the summary results is included in the subsections entitled "Results" below.

In the circumstance where a particular type of water treatment (for example, treatment with ozone) was not undertaken, but sampling for relevant byproduct chemicals (for example, bromate and formaldehyde) were still taken and analysed, this data is to be presented. This would also apply to aluminium.

Water suppliers are also required to provide information on the actions they have taken in the event that a standard set out in Table 3.1 has been exceeded during the 2005/06 reporting period and include such information under the subheading – "Actions undertaken in relation to non-compliance" for each parameter.

Non-compliant results that are to be mentioned in the non-compliance sections for each parameter are to include non-compliant results that may form part of either section 22 or section 18 notifications, or are from a water supply system that is

subject to an undertaking related to that parameter. However, to avoid unnecessary duplication of information, as the full details of section 22 notifications and undertakings are to be discussed in greater detail in other sections of the report, where applicable, a cross-reference to the relevant sections will be adequate.

3.1 *Escherichia coli* (*E. coli*)

3.1.1 Results

The required information relating to *E. coli* results and their associated sampling frequency is detailed in Table 3.2 below. The data can be presented in tabular form, or another format, as long as the required data is presented.

Table 3.2: Example table for *E. coli*

Water Sampling Locality	No. of Samples	Max Result (orgs/100mL)	% Samples with no <i>E. coli</i>	Complying (Yes/No)
Eg. Town abc	110	16	99.6%	Yes
Eg. Town def	52	3	98.7%	Yes

- If the % of samples with no *E. coli* is less than 97.5%, then the locality is non-complying

3.1.2 Actions in relation to non-compliance

This section is to contain any other matters that may be relevant to issues of non-compliance, including instances where the required number of regulatory samples were not collected, or were collected and not analysed.

Any *E. coli* detections in customer tap samples that have been reported as section 22 or section 18 notifications under the Act must be included in the Emergency/Incident Management section of the annual report. There should be an acknowledgement of the *E. coli* detections in this section and a cross reference to the Emergency/Incident Management section.

In the event that all supplies were compliant with the *E. coli* standard, and all required samples were collected and analysed, this section can be left blank.

3.2 Chlorine based disinfection byproduct chemicals

3.2.1 Results

The required information relating to the results for chlorine based disinfection byproduct chemicals (chloroacetic acid, dichloroacetic acid, trichloroacetic acid and total trihalomethanes) and their associated sampling frequency is detailed in Table 3.3 below. The data can be presented in tabular form, or another format, as long as the required data is presented.

Table 3.3 Example table for chlorine based disinfection byproduct chemicals e.g. Dichloroacetic acid

Water Sampling Locality	Frequency of sampling	No. of Samples	Max mg/L	Min mg/L	Complying (Yes/No)
Eg. Town abc	Monthly	12	0.501	0.010	No

- For Chloroacetic Acid, if the maximum result is 0.155 mg/L or greater, then the locality is non-complying
- For Dichloroacetic Acid, if the maximum result is 0.145 mg/L or greater, then the locality is non-complying
- For Trichloroacetic Acid, if the maximum result is 0.145 mg/L or greater, then the locality is non-complying
- For Trihalomethanes, if the maximum result is 0.255 mg/L or greater, then the locality is non-complying

A separate summary of data for each chlorine based disinfection byproduct chemicals is required.

3.2.2 Actions in relation to non-compliance

This section is to contain any other matters that may be relevant to issues of non-compliance, including instances where the required number of regulatory samples were not collected, or were collected and not analysed.

Any chlorine based disinfection byproduct chemical exceedances in customer tap samples that have been reported as section 22 or section 18 notifications under the Act must be included in the Emergency/Incident Management section of the annual report. There should be an acknowledgement of any such exceedances in this section and a cross reference to the Emergency/Incident Management section.

In the event that all supplies were compliant with the relevant standard, and all required samples were collected and analysed, this section can be left blank.

3.3 Ozone based disinfection byproduct chemicals

3.3.1 Results

The required information relating to the results for ozone based disinfection byproduct chemicals (bromate and formaldehyde) and their associated sampling frequency is detailed in Table 3.4 below. The data can be presented in tabular form, or another format, as long as the required data is presented.

Table 3.4: Example table for ozone based disinfection byproduct chemicals e.g. Bromate

Water Sampling Locality	Frequency of sampling	No. of Samples	Max mg/L	Min mg/L	Complying (Yes/No)
Eg. Town abc	Monthly	12	0.01	0.01	Yes

- If the maximum result for Bromate is greater than 0.02 mg/L, then the locality is non-complying
- If the maximum result for Formaldehyde is 0.55 mg/L or greater, then the locality is non-complying

A separate summary of data for each ozone based disinfection byproduct chemical is required.

3.3.2 Actions in relation to non-compliance

This section is to contain any other matters that may be relevant to issues of non-compliance, including instances where the required number of regulatory samples were not collected, or were collected and not analysed.

Any ozone based disinfection byproduct chemical exceedances in customer tap samples that have been reported as section 22 or section 18 notifications under the Act must be included in the Emergency/Incident Management section of the annual report. There should be an acknowledgement of any such exceedances in this section and a cross reference to the Emergency/Incident Management section.

In the event that all supplies were compliant with a relevant standard, and all required samples were collected and analysed, this section can be left blank.

3.4 Aluminium

3.4.1 Results

The required information relating to the results for acid soluble aluminium and its associated sampling frequency is detailed in Table 3.5 below. The data can be presented in tabular form, or another format, as long as the required data is presented.

Table 3.5: Example table for acid soluble aluminium

Water Sampling Locality	Frequency of sampling	No. of Samples	Max mg/L	Min mg/L	Complying (Yes/No)
Eg. Town abc	Monthly	12	0.19	0.01	Yes

- If the maximum result for acid soluble aluminium is 0.55 mg/L or greater, then the locality is non-complying

3.4.2 Actions in relation to non-compliance

This section is to contain any other matters that may be relevant to issues of non-compliance, including instances where the required number of regulatory samples were not collected, or were collected and not analysed.

Any acid soluble aluminium exceedances in customer tap samples that have been reported as section 22 or section 18 notifications under the Act must be included in the Emergency/Incident Management section of the annual report. There should be an acknowledgement of any such exceedances in this section and a cross reference to the Emergency/Incident Management section.

In the event that all supplies were compliant with a relevant standard, and all required samples were collected and analysed, this section can be left blank.

3.5 Turbidity

3.5.1 Results

The required information relating to the results for aluminium and its associated sampling frequency is detailed in Table 3.6 below. The data can be presented in tabular form, or another format, as long as the required data is presented.

Table 3.6: Example table for turbidity

Water Sampling Locality	Frequency of sampling	No. of Samples	Max NTU	Min NTU	95% UCL of mean	Complying (Yes/No)
Eg Town abc	Weekly	52	16.4	2.4	4.5	Yes

UCL – Upper Confidence Limit

- If the 95% UCL result for turbidity is 5.05 NTU or greater, then the locality is non-complying

3.5.2 Actions in relation to non-compliance

This section is to contain any other matters that may be relevant to issues of non-compliance, including instances where the required number of regulatory samples were not collected, or were collected and not analysed.

In the event that all supplies were compliant with a relevant standard, and all required samples were collected and analysed, this section can be left blank.

3.6 Other algae, pathogen, chemical or substance not specified above that may pose a risk to human health

3.6.1 Results

In order to detail compliance to regulation 10 (b) during the reporting period, it is required that a list of all parameters that have been monitored that represent the health-related aspects of the water supplied to customers during the reporting period be included in the report. The information can be presented in a tabular form. For each parameter the frequency of monitoring and whether any results above the health-related value for that parameter in the 2004 Australian Drinking Water Guidelines were recorded during the reporting period needs to be detailed.

For the parameters manganese, lead, copper, arsenic, fluoride and chlorine dioxide disinfection byproducts (that is, chlorate and chlorite), if they were monitored in drinking water during the reporting period, data for each water sampling locality needs to be provided as indicated in Table 3.7.

Table 3.7: Example table for copper

Water Sampling Locality	Frequency of sampling	No. of Samples	Max mg/L	Min mg/L	Complying** (Yes/No)
Eg. Town abc	Monthly	12	0.19	0.001	Yes

** compliance as measured against the health-related guideline values in ADWG

A statement to the effect that customers can access water quality data on any of the listed parameters by contacting the business needs to be included.

3.6.2 Actions in relation to non-compliance

For each result that did exceed a health-related guideline value in ADWG, the following information needs to be provided:

- water sampling locality from which the sample was collected
- the date of sampling
- the result
- the relevant health-related guideline value
- actions taken after the result was received

In the event that all supplies satisfied the health-related guideline values in ADWG, a statement stating that this was the case needs to be included.

3.7 Aesthetics

3.7.1 Results

The section of the Safe Drinking Water Regulations that refers to aesthetics is:

- *15 (1) (j) "a summary of steps taken by the water supplier to manage the aesthetic characteristics of the drinking water supplied by it, including steps taken to manage the taste, odour, clarity and pH of the drinking water supplied;"*

For the parameters of pH, colour and hardness, if they were monitored at customer taps during the reporting period, data for each water sampling locality needs to be provided as indicated in Table 3.8.

Table 3.7: Example table for pH

Water Sampling Locality	Frequency of sampling	No. of Samples	Max	Min
Eg. Town abc	Monthly	12	6.7	7.5

If any issues have arisen with regard to the taste, odour, clarity or pH of the drinking water supplied, or there have been instances of non-compliance to the guideline values in ADWG, then a short discussion on how the business is managing these issues is required.

3.8 Analysis of results

The section of the Regulations that refers to the analysis of results is regulation 15 (1) (e), which states that "an analysis of water sample information, data and results relating to the quality of drinking water supplied and a comparison of that information and data, and those results, with water sample information, data and results from the previous two financial years" must be provided.

The minimum analysis of data over time that is required is on the water quality parameters that are listed in Schedule 2 of the Regulations.

This minimum analysis should take the form of a comparison of the 04/05 data to the 05/06 data. If a longer data set is available, and is compatible, then additional years can be included in the analysis. This analysis should take the form of firstly a comparison of the number or percentage of water sampling localities that were compliant to each of the Schedule 2 parameters during each reporting period, as well as an analysis by the percentage of customers supplied with drinking water that was compliant with the standards. A separate analysis of each parameter is required. If the number of localities has changed between the two periods this is to be noted.

The comparison can be presented in either a tabulated or graphical format. For any parameter where there is not 100% compliance in both reporting periods, some explanatory text is required. This text is to detail why the percentage of non-complying localities has improved, decreased or stayed the same over the two reporting periods.

No discussion is required for any parameter where 100% compliance was achieved during both reporting periods.

The analysis of trends over time can be presented as a separate section, or can be included as part of the discussion of each Schedule 2 parameter detailed above.

4 Emergency / incident management

4.1 Emergencies/Event

4.1.1 Actions

The information required in relation to emergency / incident management, as detailed in regulation 15 (1) (c) of the Regulations, is:

- “information about actions taken by the water supplier in respect of each emergency, incident or event that has arisen that has affected –
 - (i) the quality of the water supplied for drinking purposes generally; and
 - (ii) the quality of water supplied where that supply posed a risk to human health;”

The information would firstly include any incidents that have been reported to the Environmental Health Unit of DHS under section 22 of the *Safe Drinking Water Act* 2003. All section 22 reports are to be reported under a separate heading.

Any other incidents, issues or events that occurred during the reporting period, that were not reportable under section 22 of the Act, but that had a potential or actual impact on the quality of drinking water, should also be detailed. This is to be done under a separate heading to the section 22 reports. Other issues or events could include Level 3 algal blooms, wet weather events that affected water quality, or major changes in raw water quality.

Each incident is to be clearly identified and contained in the main body of the report, and not in footnotes. The incidents, issues or events can be tabulated.

The information required for each incident, including section 22 notifications, is:

- date and duration of incident
- location of incident
- what was the nature of the incident
- what drinking water supplies were affected, or potentially affected
- what actions were taken in response to the incident

5 Regulated Water

Regulation 15 (1) (k) requires details of any regulated water managed by the business during the reporting period to be discussed. The details that are required are listed in Table 5.1.

Table 5.1: Regulated Water

Area where regulated water is supplied	Source Water	Date declared by Minister for Health	Population supplied with regulated water

An explanation of what regulated water means is to be included in the introduction to this section.

Regulation 15 (1) (l) requires discussion of the steps taken by the water supplier to manage to warn the public about the regulated water. Therefore, a summary of the management activities undertaken in relation to the supply of regulated water needs to be provided. This may include information on the following areas:

- clear signage that warns the public that the regulated water is unfit for human consumption.
- managing publicly accessible taps or locking taps so that the regulated water cannot be accidentally consumed.
- Advising all customers, particularly those operating food premises, health care facilities and schools that the water is not to be consumed.
- Any other risk management activities.

If a water supplier manages non-potable supplies that have not yet been declared as regulated water, or that are being managed as non-potable supplies, then some discussion on those supplies is to be included in this section. If a water supplier does not manage any regulated water this section can be omitted from the report.

6 Complaints

Regulation 15 (1) (g) requires a summary of complaints received by a water supplier relating to the quality of the drinking water supplied, plus a summary of the responses and any analysis of the issues arising from the complaints to be given.

To provide some consistency in the way that customer complaint information is reported to government agencies, in this year's report the reporting of customer complaints will be based on the Essential Services Commission's (ESC's) model,

where complaints are measured per 100 customers supplied (Table 6.1). A couple of additional categories have been included beyond what the ESC requests.

Table 6.1: Example table for complaints

Type of complaint	No. of complaints	No. of complaints per 100 customers supplied
Discoloured water		
Taste / odour		
Blue Water		
Air in Water		
Illness		
Other		

Any water sampling localities that recorded a total number of complaints greater than 10 complaints per 100 customers supplied in the locality during the reporting period are to be listed separately.

A summary of the process by which the business responds to complainants, a summary of how the business manages each type of complaint, and a summary of how the business is managing any issues associated with customer complaints are also to be included in this section.

7 Undertakings under Section 30 of the Act

This section is to include a summary of current undertakings as 30 June 2006 that the business has with DHS, pursuant to section 30 of the Safe Drinking Water Act. In addition to current undertakings, the summary is to include any undertakings that were commenced and completed during the reporting period, as well as any that were completed during the reporting period.

The summary can be presented in a tabulated form. The information that is to be included in the summary is:

- The contravention of the Act or Regulations that lead to an undertaking being put in place.
- The commencement date of the undertaking
- Details of the actions being taken to address the contravention
- Details of interim measures being taken to protect public while the proposed actions are being implemented
- A summary of any milestones completed
- The end date of the undertaking

8 Findings of the most recent Risk Management Plan Audit

Sub-regulation 15 (1) (m) requires a summary of the findings of the most recent risk management plan audits to be given. As no regulatory audits were held during the 2005-06 reporting period, this section can be omitted from the report.

9 Variation to aesthetic standards under Section 19 of the Act and conditions imposed under Section 21 of the Act

Sub-regulation 15 (1) (f) (i) requires a summary of every variation under section 19 and every condition imposed under section 21 to be given. As there were no section 19 variations in place, nor any section 21 notices issued, during the reporting period, this section can be omitted from the report.

10 Exemptions from Water Quality Standards under Section 20 and conditions imposed under Section 21 of the Act

Sub-regulation 15 (1) (f) (ii) requires a summary of every exemption under section 20 and every condition imposed under section 21 to be given. As there were no section 20 exemptions in place, nor any section 21 notices issued, during the reporting period, this section can be omitted from the report.

11 Glossary of Terms

If it will provide clarity on some of the technical issues and terms presented in the report, it is suggested that a glossary of terms be included in the report.

Attachment 2

Water storage manager 2005/2006 annual report content guide
June 2006

1 Introduction

Suggested information for this section may be aims and objectives of the business, and/or an overview of the business.

1.1 Characterisation of the System

Provide an overview of the water supply system from catchment to the point of supply to each water supplier. The inclusion of a map of the water supply system(s) or the business' area of operation is recommended.

1.1.1 Source of water

Provide information on where the water is sourced from for each water supplier that the business supplies. Presenting the information in a tabulated format, as is shown Table 1.1 below, is recommended.

In some cases, Source Water and Storage may be one in the same. Source Water and Storage would be separate in the circumstance where raw water is abstracted from a water course and placed in a water storage area, prior to treatment. If the business does not operate separate water storage areas, just providing details of the source waters will be sufficient.

Table 1.1: Example table for water source

Source Water	Catchments	Storage

In the accompanying text, please highlight any major changes between the arrangements for water supply as detailed in last year's report as compared to the arrangements detailed in the current report.

2 Quality Management System

2.1 Water Treatment

In relation to water storage managers, the sections of the Safe Drinking Water Regulations that refer to water treatment are:

- 15 (2) (d) "a summary of the process by which the water supplied by the water storage manager is disinfected and any other processes applied to the water by the water storage manager;"
- 15 (2) (e) "a list of all the chemicals and other substances, and any processes, used by a water storage manager to disinfect or treat the water supplied, or to be supplied by it for drinking purposes;"

Please include information describing the regular treatment processes, along with any periodic treatment activities, for each water supply system, from the point the raw water enters the water treatment plant, through to where the business' responsibility ends, with respect to water treatment.

It is recommended that information on the treatment processes and the chemicals associated with those processes be presented in a tabular form (see Table 2.1), along with explanatory text that briefly describes each treatment process and chemical additive. The explanatory text can be presented as a glossary of terms at the end of the report.

If it is convenient to do so, the information contained in Table 2.1 below can be combined with the information requested in Table 1.1 below, and presented as a single table.

Table 2.1: Example table for water treatment

Supply	Treatment process	Added substances	Comments
Supply System	Chlorination Fluoridation	Chlorine gas Fluoride	

It is recognised that not all water storage managers treat the water prior to delivery to the water supplier. If this is the case this section can be omitted from the annual report.

In the accompanying text, please highlight any major changes between the water treatment processes detailed in last year's report as compared to the processes detailed in the current report.

2.1.1 Issues

Sub-regulation 15(2)(d) requires discussion of any issues arising out of the processes used to disinfect or treat drinking water. Examples of issues arising are if the treatment or disinfection process is inadequate to address an identified water quality risk, or if the treatment process is not capable of always delivering drinking water that is compliant with the water quality standards.

If there are no issues, please indicate that this is the case. If there are issues, please summarise the issues, preferably in a tabulated form.

This section is only applicable if the business undertakes water treatment activities.

3 Emergency / incident management

3.1 Emergencies

3.1.1 Actions

The information required in relation to emergency / incident management, as detailed in regulation 15 (2) (a) of the Regulations, is:

- "information about actions taken by the water storage manager in respect of each emergency, incident or event that has arisen that has affected –

- (i) the quality of the water supplied for drinking purposes generally; and
- (ii) the quality of water supplied where that supply posed a risk to human health;”

The information would firstly include any incidents that have been reported to the Environmental Health Unit of DHS under section 22 of the *Safe Drinking Water Act* 2003. All section 22 reports are to be reported under a separate heading.

Any other incidents, issues or events that occurred during the reporting period, that were not reportable under section 22 of the Act, but that had a potential or actual impact on the quality of drinking water, should also be detailed. This is to be done under a separate heading to the section 22 reports. Other issues or events could include Level 3 algal blooms, wet weather events that significantly affected water quality or major changes in raw water quality.

Each incident is to be clearly identified and contained in the main body of the report, and not in footnotes. The incidents, issues or events can be tabulated.

The information required for each incident, including section 22 notifications, is:

- date and duration of incident
- location of incident
- what was the nature of the incident
- what drinking water supplies were affected, or potentially affected
- what actions were taken in response to the incident

3.1.2 Issues

Provide information about any issues that may have arisen out of the actions referred to above, as per regulation 15 (2) (b).

Each incident should be clearly identified and contained in the main body of the report, and not in footnotes. The incidents, issues or events can be tabulated.

4 Undertakings under Section 30 of the Act

This section is to include a summary of current undertakings as of 30 June 2006 that the business has with DHS, pursuant to section 30 of the *Safe Drinking Water Act*. In addition to current undertakings, the summary should also include any undertakings that were commenced and completed during the reporting period, as well as any that were completed during the reporting period.

The summary can be presented in a tabulated form. The information that should be included in the summary are:

- The contravention of the Act or Regulations that lead to an undertaking being put in place.
- The commencement date of the undertaking
- Details of the actions being taken to address the contravention
- Details of interim measures being taken to protect public while the proposed actions are being implemented

- A summary of any milestones completed
- The end date of the undertaking

5 Findings of the most recent Risk Management Plan Audit

Sub-regulation 15 (2) (f) requires a summary of the findings of the most recent risk management plan audits to be given. As no regulatory audits were held during the 2005-06 reporting period, this section can be omitted from the report.

6 Exemptions under Section 8 of the Act and conditions imposed

Sub-regulation 15 (2) (c) requires a summary of every exemption under section 8 to be given. As there were no section 8 exemptions in place during the reporting period, this section can be omitted from the report.

7 Glossary of Terms

If it will provide clarity on some of the technical issues and terms presented in the report, it is suggested that a glossary of terms be included in the report.