

**DRINKING WATER QUALITY  
REGULATORY FRAMEWORK  
FOR VICTORIA**

**INDUSTRY DRAFT OF THE  
SAFE DRINKING WATER  
REGULATIONS:**

**CONSULTATION HISTORY,  
ANALYSIS OF SUBMISSIONS  
AND NEW COST ESTIMATES**

**July 2004**



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## MAIN REPORT

### 1. Introduction

The *Safe Drinking Water Act 2003* was enacted on 11 June 2003 and applies throughout Victoria from 1 July 2004.

The Act requires water suppliers, as defined in the Act, to prepare, implement and audit risk management plans in relation to their supply of water, comply with standards for drinking water quality, communicate effectively with all stakeholders and publicly disclose relevant water quality information.

Water storage managers, also defined in the Act, will be required to prepare, implement and audit risk management plans in respect of the supply of water to a water supplier, communicate effectively with all stakeholders and also publicly disclose relevant water quality information.

The Act contains the principal obligations and refers to subordinate regulations covering a number of technical aspects of the legislation. These include, among other things, standards for drinking water quality, monitoring requirements for drinking water, approval criteria for auditors, detailed disclosure requirements and prescribed elements of risk management plans for water suppliers and water storage managers in Victoria.

For the *Safe Drinking Water Regulations*, the Department established a **consultative panel** of key industry and stakeholder personnel to assist on policy matters within the legislated context. This process commenced in July 2003 and ran in conjunction with the Victorian Water Industry Association. The consultative process was designed to consider as much input from stakeholders as possible regarding drafting of the proposed regulations, with a view to ensuring that the regulations are practicable, unambiguous and as consistent across Victoria as possible. This process informed the preparation of the industry draft of the drafting instructions for the regulations.

In November 2003, the Department invited the bodies to be regulated under the legislation (water industry, alpine resorts and Parks Victoria), other consultative panel members and key Victorian Government stakeholders to comment on the industry draft of the drafting instructions and to update costings compared to those provided in the previous round of consultation (November 2001). The covering memo that was issued by email on 24 November 2003 is attached as Appendix 1.

This report summarises the submissions received from this round of the process and how the consultation process continued during the first half of 2004.

Details of the costings and comments from the previous rounds of consultation can be found in the following reports:

- "*Drinking Water Quality Regulatory Framework for Victoria – Analysis of Submissions*" (DHS, DNRE (now DSE), May 2002)
- "*Drinking Water Quality Regulatory Framework for Victoria – Economic Impact Assessment*" (DHS, September 2002)

## **2. Process of consultation and analysis**

In total, fifteen submissions were received in the November 2003 round of consultation. This represented approximately half the bodies that were invited to comment. The submissions were in general considerably briefer than those received in the November 2001 round of consultation, ranging in length from tabulated data and reports to brief emails. The submissions were usually prepared and signed by technical managers within the bodies, although a number were signed at Chief Executive Officer level. Information about the style, format and authorship of the submissions is included in Appendix 2.

In general, the fifteen submissions covered the following areas:

- comments supporting the Department's consultative approach and the content of the regulatory framework (7 of the submissions)
- comments seeking minor clarification on terminology or language (10 of the submissions)
- comments on specific policy or legislative matters (10 of the submissions)
- comments on scientific or technical matters (5 of the submissions)
- updated some aspects of the costings (10 of the submissions)

These matters are considered further later in this report. The submission from the Victorian Water Industry Association incorporated and summarised comments made by a number of individual water businesses.

Where possible, follow up contact was made with businesses that did not provide a submission, in order to verify that they preferred not to update their previous costings and to ensure that all opportunities for consultation had been provided.

Bodies that chose not to make a submission in this round are also listed in Appendix 2. A number of these bodies provided a staff member for the consultative panel in 2003.

All submissions were reviewed and assessed to determine their compatibility with the policy objectives of the legislation and to determine whether the drafting instructions needed to be clarified, particularly in terms of language. In particular, the comments were reviewed relative to the water industry draft of the drafting instructions issued in November 2003. Where bodies chose not to comment or update their costings, the previous costings were used as a basis, subject to any amendments made in the previous consultative rounds and subject to any material changes in the matters on which the businesses were asked to provide information.

As in the previous rounds of consultation, costs that were not new or attributable to the proposed legislation were not included in the analysis.

The costings data from the submissions is set out in Appendix 4. The comments on the drinking water quality regulatory framework in general and on aspects of the November 2003 industry draft of the drafting instructions are set out as follows.

Other activities relating to communication and consultation on the Safe Drinking Water regulatory framework during 2003/04 are summarised in section 6 of this report.

### **3. Comments supporting the framework and consultative process**

A number of submissions specifically supported and appreciated the Department's consultative process for the proposed regulations. They also endorsed the catchment to tap risk based focus of the framework. No submission opposed or expressed concern with the consultative process for the regulations. This was in line with the support received during the previous (November 2001) round of water industry consultation and informal comments provided by members of the consultation panel.

A number of the comments are reproduced below:

*"We appreciate the opportunity to provide you with the following comments on the drafting instructions on behalf of our members.*

*"VicWater is supportive of the direction and intent of Department of Human Services (DHS) as outlined in the drafting instructions. Furthermore VicWater commends the DHS for their consideration of the water industry's view to date."*

**Victorian Water Industry Association** (quotation)  
and **Melbourne Water** (paraphrased)

*"At the outset South East Water would like to place on record our appreciation of the consultative approach that has been taken by the Department in this process. As a result we believe that the draft instructions, subject to the comments provided in the attached response, will produce a sensible set of regulations that will receive the support of South East Water."*

**South East Water**

*"Central Highlands Water clearly supports the movement towards uniform legislation and the application of appropriate risk management principles. The supporting of good working relationships between water retailers, bulk suppliers and other organisations in the risk management chain is imperative to deliver outcomes that meet regulatory, stakeholder and customer water quality requirements."*

**Central Highlands Water**

*"Goulburn Valley Water supports the significant shift in proposed compliance parameters as it clearly recognises the intent and adequacy of coverage achieved through the risk base of the legislation."*

**Goulburn Valley Water**

*"Barwon Water supports the risk management principles of the Safe Drinking Water Act and corresponding regulations."*

**Barwon Water**

The remaining submissions generically appreciated the opportunity to comment.

#### 4. Comments on aspects of the drafting instructions

The Department invited comments on aspects of the November 2003 industry draft of the drafting instructions for the Safe Drinking Water Regulations. The comments are reproduced in the tables on the following pages. Where possible, they are directly quoted from the submissions concerned. In some instances they have been summarised or paraphrased, in the interests of brevity or clarity.

Comments mainly related to proposed risk management requirements, monitoring requirements, water quality standards and accreditation processes.

Having considered all the responses received, the Department concluded that none of the comments raised substantive concerns with the proposed regulations, as expressed in the draft of the drafting instructions, other than some specific comments regarding some of the proposed standards. Most of the comments covered issues pertaining to clarification of language or detail of how the proposed regulatory framework would be carried out.

Substantive comments were received from three water businesses in relation to proposed monitoring for proposed standards for the **haloacetic acids**. The comments queried the need for a standard for these parameters, although closer analysis indicated that the issues related to the monitoring proposed for the standard rather than the standard itself. None of the other submissions commented on these proposed standards.

The issues raised by these comments were assessed by officers of the Department's Environmental Health Unit. In summary, it is possible to express the standard for the haloacetic acids without requiring mandatory monitoring but placing the onus on the water supplier to demonstrate safety. This can be readily achieved via the risk based methodology and the basis that a water supplier would need a base level of monitoring data for these parameters to properly ascertain its risk profile. More detailed information is shown in the tables.

One water business raised a number of technical queries relating to **statistical aspects** of compliance for chemicals and turbidity. We sought the views of professional statisticians associated with the CSIRO in Canberra on this matter, as well as contacts at the NHMRC and South Australian Department of Human Services.

Essentially, the models proposed were based on those in the "*Australian Drinking Water Guidelines*", developed by and for the Australian water industry. In the absence of any contrary data or statistically superior alternative that may be relevant for Victoria, it is regarded as appropriate to remain with the proposed statistical expressions at this time.

The statistical expressions can be reviewed if data indicates they are generating an anomalously high hurdle for monitoring undertaken monthly for well managed systems (that is, where the 95% upper confidence limit of the 95<sup>th</sup> percentile is significantly higher than the numerical value of the standard, for a reason that can not be attributed to poor quality water supply, and where reducing the upper confidence limit would require excessive monitoring). This may be most significant for disinfection by-products such as the haloacetic acids.

A number of matters arising from the subsequent **drafting process** for the regulations has meant that the later drafts of the regulations did not necessarily contain all the detail shown in the November 2003 documents. This is particularly so where the drafting instructions may paraphrase aspects of the Act. Nevertheless the regulations and the drafts above remain consistent in their broad policy intent. The final draft regulations are subject to submissions received through the public regulatory impact process.

To **summarise**, analysis of all comments with respect to the policy objectives of the regulatory framework for drinking water for Victoria indicate that changes to the proposed regulations, when compared to the intent of the drafting instructions, do not arise from this round of the consultation process, save for the drafting matters identified. These will be incorporated into the drafting process for the regulations.

The comments overleaf are categorised by subject as set out in the November 2003 draft of the drafting instructions. Discussion and response to the comment and any proposed amendment to the regulation or instruction are also shown.

**Subject (heading as used in drafting instructions):**

Introductory statement, identifier of enabling power, commencement date and other matters

**Comment from submission(s):**

**MWC** - The drafting instructions must be read in conjunction with the Safe Drinking Water Act to be understood. If it is intended for the regulations to be read as a stand-alone document, there may have to be some explanation of the contents of the Act as background to some of the regulations.

**Discussion and response to the comment:**

The drafting instructions and final regulations will be read in conjunction with the Safe Drinking Water Act.

**Proposed amendment to regulation or instruction:**

None arising from this process.

**Subject (heading as used in drafting instructions):**

Definitions

**Comment from submission(s):**

**BW, VWIA** echoed – Suggested including a definition of risk for the Act and Regulations, given its importance in formulating risk management plans.

**Discussion and response to the comment:**

The term "risk" should have the same meaning in the Act and in the Regulations. Since the Regulations can not contain a definition of risk that applies to the Safe Drinking Water Act, it would be inappropriate to have a definition of "risk" for the Regulations.

The phrases "*risk management plan*" and "*risk management plan audit*" are defined in section 3 of the Act, but the Act does not define "risk". The word "risk" in sections 9 and 10 must be interpreted within its context. Given the context, the word involves consideration of the probability of the harm occurring and the magnitude or seriousness of the harm.

There was discussion of the word "risk" at a DHS/DSE meeting during the drafting of the Bill. It was noted at the meeting that risk involves consideration of the probability of the harm occurring and the magnitude or seriousness of the harm. It was not proposed at the meeting that "risk" should be defined in the legislation.

Further, documents that are commonly available and used by the water industry offer commonly understood definitions of the term "risk". For example:

Risk (from Australian Standard AS/NZS 4360 – 1999 Risk Management, section 1.3.15): "*the chance of something happening that will have an impact upon objectives. It is measured in terms of consequence and likelihood*"

Risk (from Australian Drinking Water Guidelines 2002 version, Glossary): "*the likelihood of a hazard causing harm in exposed populations in a specified time frame, including the magnitude of that harm*"

As water suppliers are likely to refer to these documents in preparing their risk management plans, it can be concluded that these definitions would reasonably suffice without requiring one in the legislation.

**Proposed amendment to regulation or instruction:**

None arising from this process.

<p><b>Subject (heading as used in drafting instructions):</b>  Declaration of additional bodies as a “water storage manager” or “water supplier”</p>
<p><b>Comment from submission(s):</b>  <b>SEW</b> - It is not clear why Melbourne Water, a municipal council, unincorporated association, natural person or persons should be declared as water suppliers in the regulation when this was not done under the Act. The inclusion of Melbourne Water as a water supplier is not considered necessary at this stage.</p>
<p><b>Discussion and response to the comment:</b>  The definitions of “water storage manager” and “water supplier” in section 3 of the Act are written so that other bodies may be declared via regulations at some future time. The bodies listed above are cited in the drafting instructions as examples only. The regulations are likely to be silent on this aspect.</p>
<p><b>Proposed amendment to regulation or instruction:</b>  None arising from this process.</p>

**Subject (heading as used in drafting instructions):**

Content of risk management plans, including specifying risks

**Comment from submission(s):**

**MWC, VWIA** echoed – supports current wording for risk management plans, which is better than specifying separate sub-plans for catchments, storages, treatment or distribution systems. The words “Must consider how risks can be transferred downstream” are a bit confusing.

**GVW, VWIA** echoed – suggest “manifest” instead of “transfer”.

**CHW** supports the requirement for water storage managers to develop risk management plans in a unified arrangement with Water Suppliers similarly monitoring to a level of detail commensurate with the potential risk.

**SEW, VWIA** echoed – Strategic framework should only refer to the sections of the system that are under the control of the water business instead of from catchment to tap.

**BW, VWIA** echoed in part – Suggested a common description of water quality hazards and that specific regulations on the quality of water be devised so that the quality aspects can be removed from the risk management plans.

**GVW** - There is no established accreditation system for chemicals, for use in potable drinking supplies in Australia to facilitate compliance with this aspect of the proposed regulation.

**GVW, VWIA** echoed - The requirement to establish contingency plans for any event implies that the water supplier must identify every possible event which does not embrace the concept of what is reasonably practicable. Incident and emergency arrangements be established for a “reasonable” event not “any” event that has the potential to adversely affect the quality or safety of drinking water supplied to consumers.

**Discussion and response to the comment:**

The comments either support the proposals in total or suggest some minor alterations.

The suggestion by SEW regarding the strategic framework only referring to the sections of the system under a particular water supplier’s control are not accepted, as the underlying ethos of the legislation relates to catchment to tap risk management. It is recognised that few businesses are completely vertically integrated, however it is essential to think holistically to enable meaningful management of risks.

The comments by GVW regarding accreditation systems for chemicals are opinion and are noted, but on balance do not diminish the argument that this aspect is a significant risk that needs to be managed. The accreditation systems can reasonably be expected to develop with the requirement.

The requirement to establish emergency management arrangements for “any event” etc is also essential, as it is not meaningful to only focus on those events that are reasonable or normative. The obligations are specifically designed to encourage wider thinking on unusual matters, which have historically proven to be significant indicators of risk arising from water supply systems. It would be up to the water supplier or water storage manager to demonstrate that the events that they choose to develop plans for exclude those with vanishing probabilities or insignificant risk profiles in those specific supplies.

The comments in relation to wording will be considered as drafting points but on balance it is not a significant issue. Further, the draft of the set of risks to be considered will be reviewed to determine whether they paraphrase the requirements of section 9 of the Act or relate to aesthetic matters rather than matters that are arguably related to health risk.

**Proposed amendment to regulation or instruction:**

None arising from this process, except that the comments in relation to wording will be considered as drafting points.

**Subject (heading as used in drafting instructions):**

Documents that must be inspected by auditors

**Comment from submission(s):**

**GVW** – supported all aspects (no issues)

**EGW, CGW, VWIA** echoed – some indication of timeframes for audit requirements would assist water business budget purposes.

**MWC, VWIA** echoed – supports the proposed list of documents that must be inspected except for documents held by third parties (e.g. a third party's internal quality assurance system). The water supplier's own documents must be able to demonstrate to the auditor that risks are adequately managed.

**MWC** - It may also be worth clarifying whether any of this proposed regulation conflicts or is consistent with privacy or freedom of information laws.

**Discussion and response to the comment:**

Having considered the comments on third party documents, the point is noted, however this does not materially affect the proposed list of documents. The instructions do not specifically relate to the auditor accessing third party documents.

The time frames for audit requirements are intended to be left open in the legislation and would be anticipated to be determined by the regulatory office in due course, in communication with the water industry and the audit timetables of other regulators.

The proposed regulations do not conflict with privacy or freedom of information laws.

As a general observation, the *Information Privacy Act 2000* and the *Health Records Act 2001* provide that:

- the Information Privacy Principles/Health Privacy Principles permit the use or disclosure of personal information if the use/disclosure is authorised by other laws; and
- the Information Privacy Act and the Health Records Act must be read subject to any other contrary Victorian legislation.

The *Freedom of Information Act 1982* is read in conjunction with other legislation, including the *Safe Drinking Water Act 2003*.

**Proposed amendment to regulation or instruction:**

None arising from this process.

<p><b>Subject (heading as used in drafting instructions):</b> Form and content of audit certificate</p>
<p><b>Comment from submission(s):</b>  <b>GVW</b> – supported all aspects (no issues)</p> <p><b>SEW, VWIA</b> echoed - The final point would seem to contain details more relevant to an audit report rather than an audit certificate. It is considered that this level of detail may be best left for the audit report, while the certificate would only note that there were non-conformances.</p>
<p><b>Discussion and response to the comment:</b> The point made by SEW is noted, however the wording reflects the wording of section 12(2) of the Act, which refers to regulations regarding the “certificate” rather than a report. The drafting instructions clarify the status of this and it is a drafting matter.</p>
<p><b>Proposed amendment to regulation or instruction:</b> None arising from this process, except that the comments in relation to wording will be considered as drafting points.</p>

**Subject (heading as used in drafting instructions):**

Auditor approval criteria

**Comment from submission(s):**

**MWC, GVW** – supported all aspects (no issues)

**SEW, VWIA** echoed – The [Essential Services Commission's] framework document contains a number of items that may be worth considering for these regulations, particularly matters such as:-

- knowledge of the water industry;
- work recently done for the water business (including the need to advise of any potential conflict of interest);
- primary duty of care;
- experience and expertise of the audit firm and team;
- period of appointment (eg up to five years).

**WW** – Queried who has the responsibility for accrediting auditors and subsequently supplying a list for the water authorities to enable the selection of an appropriate auditor.

**WW** – also sought clarification on the proposed duration of accreditation.

**Discussion and response to the comment:**

The proposed drafting instructions are intended to be generic and are modelled on those used for the food industry. Further details may be spelt out by the regulatory office as guidelines in due course.

The duration of auditor approval may be one of the conditions set out under section 13(4) of the Act.

The Act stipulates that the Secretary may approve a person as an auditor.

**Proposed amendment to regulation or instruction:**

None arising from this process.

**Subject (heading as used in drafting instructions):**

Quality standards for drinking water

**Comment from submission(s):**

**SEW, CHW** – all proposed standards are supported.

**CWW** – an objective rationale for inclusion or exclusion of various parameters as standards would be useful.

**MWC, VWIA** echoed – The revised schedule of standards is far more appropriate in supporting a risk management approach to drinking water quality than the previous list of parameters.

**GVW** –The draft regulations provide no defence for non-compliance against standards when the non compliance is beyond the reasonable control of the Authority or due diligence is demonstrated.

**Drinking water quality general statement**

**CGW, EGW, MWC, VWIA** echoed – suggest softening this by replacing ‘must’ with ‘should’, to recognise that there is a level of acceptable risk (**MWC, VWIA** echoed).

**GVW** – suggest redraft statement regarding risk to consider sensitive individuals in the population, who should take their own special precautions.

**Category (a) - *E. coli* standard**

**BW** – supports 98% standard and supports weekly minimum monitoring

**CHW** supports the relaxing of total coliform standards with *E. coli* being retained as the primary compliance parameter for faecal contamination.

**GVW** – prefers standard to be set at 95%, not 98%.

**Category (b) - turbidity standard**

**GVW** – suggest that number of significant decimal places be nominated (i.e. 5 NTU versus 5.0 NTU).

**Category (c) - total trihalomethanes standard**

No comments received

**Category (c) - chloroacetic, dichloroacetic and trichloroacetic acids standards**

**MWC, VWIA** echoed - Consideration should be given to removing these disinfection byproducts from the schedule and relying on trihalomethanes as the key indicator of disinfection byproduct formation. The regulator could then establish its own rules.

**CGW, EGW** - do not believe testing for chloroacetic acids is necessary within the table (Schedule of Standards) of mandatory standards for testing. The risk of occurrence would be based on levels of trihalomethanes detected in the treated water supply system. This consideration is directly related to information published in the Australian Drinking Water Guidelines 2002 – draft for consultation, fact sheet 69 and 77.

**Category (d) - bromate and formaldehyde standards**

No comments received

**Category (e) - aluminium standard**

**CHW** - supports this standard on the basis that it provides additional confidence that consistent and optimised filtered water is being delivered to our customers.

**GVW, VWIA** echoed – setting a standard for aluminium and not iron may drive water suppliers to competing products (ferric chloride) to the detriment of the market place.

**CGW** – prefers aluminium sampling to only be at water entry point at treatment plant rather than at consumer supplies.

**Category (f) - no standards proposed for variations**

No comments received

**Statistical aspects of compliance for chemicals and turbidity**

**WW** – suggest prudent to provide sample statistical calculations.

**GVW** – suggest reviewing statistics away from confidence limits models from Australian Drinking Water Guidelines.

**Discussion and response to the comment:**

**General comments and drinking water quality general statement**

Overwhelmingly, the proposed standards were supported, with specific statements of support from a number of water businesses, with most businesses not commenting or commenting on the matters listed above.

Regarding the no defence comment from GVW and the comments on the generic statement, section 17 of the Act uses the word “must” and it is appropriate for the instructions to use that wording (although, as an aside, it is irrelevant since the word “must” is in the Act).

Section 17 of the Act creates a statutory obligation, but contravention of the provision is not an offence. If a water supplier breaches section 17, the Secretary may issue an enforcement notice under section 31. The water supplier must comply with the enforcement notice “unless it has a reasonable excuse for not doing so” (section 31(3)). This provision addresses situations where non compliance is beyond the reasonable control of a water supplier.

Consideration has been given to clarifying the statement in the draft regarding its intention to include community sectors such as infants and the elderly but not necessarily those with uncommon allergies or sensitivities or specialised medical needs, such as renal dialysis patients, or individuals with compromised immune systems. The text of section 4D(2) of the *Food Act 1984* was considered but legal advice has indicated that this is unnecessary.

**Category (a) - *E. coli* standard**

The proposed standard, based on 98%, has overwhelming support from the water industry and Australian and international guideline documents and will be retained.

**Category (b) – turbidity standard**

To avoid ambiguity, the drafting instructions should express the standard as 5.0 NTU rather than 5 NTU for turbidity, to clarify concerns regarding rounding of data.

**Category (c) - total trihalomethanes standard**

No changes proposed.

**Category (c) - chloroacetic, dichloroacetic and trichloroacetic acids standards**

The comments essentially queried the need for monitoring proposed for the standard, rather than the compositional standard of the water itself for haloacetic acids.

The issues raised by these comments were assessed by officers of the Department's Environmental Health Unit. The research indicated that the haloacetic acids were possibly significant disinfection by-products in that they have been detected at levels in Australian drinking water supplies that may approach the guideline value (equivalent to the proposed standards) and are likely to be hepatotoxic. Haloacetic acids are also subject to regulatory oversight in comparable jurisdictions abroad.

Data derives from the Fact Sheets 69 and 77 from the 1996 and 2002 draft versions of the "*Australian Drinking Water Guidelines*" and from the report "*Drinking Water Disinfection By-products Relevant to the 1996 NHMRC/ARMCANZ Guidelines*" (Research Report 115, UWRAA, 1996).

In summary, it is possible to express the standards for haloacetic acids without requiring mandatory monitoring but placing the onus on the water supplier to demonstrate safety. This can be readily achieved via the risk based methodology and the basis that a water supplier would need a base level of monitoring data for these parameters to properly ascertain its risk profile. This change will be adopted.

Having considered the comments received, the Department concluded that there was no evidence to justify changing the standards for the three haloacetic acids.

It should be noted that the comments raised by the submissions above regarding the haloacetic acids related to in-principle points regarding monitoring philosophy, or cost of monitoring, rather than cost of ensuring that the chemicals were not present at significant levels in the drinking water. No water business identified any costs relating to treating drinking water to ensure that it complied with these standards.

**Category (d) - bromate and formaldehyde standards**

No changes proposed. However, it should be noted that these standards are only intended to apply to systems where ozone is used as part of the disinfection process. This is not widespread in Victoria.

**Category (e) - aluminium standard**

No changes proposed. The comment regarding iron rather than aluminium based water treatment chemicals is speculative and is, on balance, regarded by the Department as an unlikely outcome, given the checks and balances built into the risk management process. It is appropriate for compliance monitoring for standards to be based on data from customer supplies rather than elsewhere. It is open for a water business to monitor elsewhere as well for operational reasons, if it wishes to do so.

**Category (f) - no standards proposed for variations**

No changes proposed.

**Statistical aspects of compliance for chemicals and turbidity**

The statistical aspects have been reviewed, to consider the issues raised by Goulburn Valley Water. We sought the views of professional statisticians associated with the CSIRO in Canberra on this matter, as well as water industry and policy development contacts at the NHMRC and South Australian Department of Human Services.

Essentially, the models proposed were based on those in the "*Australian Drinking Water Guidelines*", which was developed by and for the Australian water industry. Whilst it is acknowledged that they do not necessarily apply to all data distributions, it is believed that they are a reasonable and pragmatic approximation for data sets that are either normal, likely to be normal or are transformable to log normal.

Use of a 95<sup>th</sup> percentile is common throughout the environmental industry and is used by the USEPA and a number of other bodies to provide an accurate picture of estimated long term risk arising from chemicals in water. In the absence of any contrary data or statistically superior alternative that may be relevant for Victoria, it is regarded as appropriate to remain with the proposed statistical expressions at this time.

The statistical expressions can be reviewed if data indicates they are generating an anomalously high hurdle for monitoring undertaken monthly for well managed systems (that is, where the 95% upper confidence limit of the 95<sup>th</sup> percentile is significantly higher than the numerical value of the standard, for a reason that can not be attributed to poor quality water supply, and where reducing the upper confidence limit would require excessive monitoring). This may be most significant for the disinfection by-products such as the haloacetic acids.

In relation to the query about provision of worked examples, such information can be found in the "*Australian Drinking Water Guidelines*" and statistical texts.

The issue relating to statistical variations in data attributable to data originating from different laboratories is intended to be resolved when analytical methodologies are determined for the standards. This will take place at a future date.

**Proposed amendment to regulation or instruction:**

Modify the form of expression of the turbidity standard from 5 NTU to 5.0 NTU.

Modify the reference to mandatory monitoring for the standards for the three haloacetic acids as described above.

No changes are proposed to the statistical expressions for chemicals and turbidity at this time. They can be reviewed if data indicates they are generating an anomalously high hurdle for monitoring undertaken monthly for well managed systems.

<p><b>Subject (heading as used in drafting instructions):</b> Variations of certain aesthetic standards</p>
<p><b>Comment from submission(s):</b> GVW – supported all aspects (no issues)</p>
<p><b>Discussion and response to the comment:</b> No other comments were received, however it should be noted that no standards are proposed in this category at the moment.</p>
<p><b>Proposed amendment to regulation or instruction:</b> None arising from this process.</p>

**Subject (heading as used in drafting instructions):**

Monitoring, sampling and analysis requirements

**Comment from submission(s):**

**GVW, CGW** – clarification sought on the minimum sample size for determining performance compliance, especially in relation to whether monitoring reductions are permissible for *E. coli*.

**SEW, VWIA** echoed - there should be an obligation on the Secretary to consult with affected water businesses prior to declaring the water quality zones.

**SEW, VWIA** echoed - A condition should be placed on the Secretary that a power to specify that water suppliers or water storage managers do any other monitoring as specified by the Secretary can only be used “on reasonable grounds”.

**BW, VWIA** echoed – Secretary needs procedures to update registry of water quality zones.

**CGW** - Minimum weekly monitoring proposed for *E. coli* and turbidity is unnecessary, suggest fortnightly and monthly respectively, stated to be based on staffing problems for weekly monitoring at remote supplies and timeliness of any operational response.

**EGW** – Likewise to CGW on this matter except they prefer monitoring frequency to be based on their own risk assessment and have not suggested a minimum.

**Discussion and response to the comment:**

The drafting instructions already provide for variations to monitoring frequency in certain circumstances, including for turbidity. These are believed to provide a satisfactory balance between the obligation to obtain enough data to demonstrate that the quality of water supplied to consumers is satisfactory and the reality that there are numerous small and remote towns with water supplies in Victoria.

Monitoring reductions are already permissible, in this draft, for *E. coli* for supplies below 200 population, but not otherwise. This covers the issue of sampling remote supplies, nearly all of which are below 200 in population. The monitoring referred to here is for compliance purposes, not operational requirements of water businesses, so the question of proposed operational response to data is not relevant.

It is expected that the Secretary would consult with the water suppliers on the water sampling localities.

The comment regarding use of the power to specify monitoring only on reasonable grounds is already covered in the drafting instructions.

**Proposed amendment to regulation or instruction:**

None arising from this process, except the wording regarding variations to monitoring frequency will be checked in the regulations.

**Subject (heading as used in drafting instructions):**

Content of annual water quality reports

**Comment from submission(s):**

**SEW, VWIA** echoed - It is suggested that the words "Analysis of water quality trends" in dot point 3 be replaced with "Comment on any significant changes (5%)". It would be difficult to regard a change from one year to the next as a trend.

**GVW** - The regulations could consider a time limit for publishing annual reports (this comment relates to the time frame from submitting the report to the Secretary to publicly releasing the report, pursuant to section 26(5) of the Act).

**CGW, EGW** – suggest defining "complaint" as a number of variants are commonly used in the industry.

**CGW, EGW** – requested definition of "any water quality monitoring program" under section 23 (1) of the Act, suggest restricting it to mandatory compliance monitoring only because of perceived difficulty of explaining to the meaning of data to the public.

**Discussion and response to the comment:**

Most of the comments above relate to levels of detail below that which would be included in legislation. It may be beneficial to amend the instruction regarding "analysis of water quality trends" during the drafting, but the 5% suggested is too specific to be itemised in legislation. Similarly, the regulatory office may choose to define "complaint" in guidelines in due course but, on balance, there is believed to be no benefit in including this level of detail in legislation.

It is not possible for the Regulations to define or modify the expression "any water quality monitoring program" under section 23 (1) of the Act. The statement regarding the public being unable to understand published water quality data is also not supported.

**Proposed amendment to regulation or instruction:**

None arising from this process, except that drafting of terms may be reviewed as discussed above regarding trends.

<p><b>Subject (heading as used in drafting instructions):</b> Details of undertakings, variations or exemptions that must be contained in the register</p>
<p><b>Comment from submission(s):</b> GVW – supported all aspects (no issues)</p>
<p><b>Discussion and response to the comment:</b> No other comments were received.</p>
<p><b>Proposed amendment to regulation or instruction:</b> None arising from this process.</p>

<p><b>Subject (heading as used in drafting instructions):</b> Approval or accreditation system for collectors of samples</p>
<p><b>Comment from submission(s):</b>  <p><b>VWIA</b> – clarify if water businesses staff will be able to gain accreditation or if independent sampling will be required. The benefits of independent sampling must outweigh the associated increased costs.</p> <p><b>NATA</b> – would be happy to provide input into the development of such arrangements.</p> <p><b>WW</b> – who is responsible for errors in dispatching an unaccredited sampler?</p> <p><b>EGW</b> - no indication of what form this accreditation will take.</p> <p><b>GLW</b> – prefers to retain in house sampling process and believes that its current system of training is more than adequate.</p> </p>
<p><b>Discussion and response to the comment:</b>  <p>The proposed instruction related to accreditation of samplers at a future date but does not compel the use of external contractors or the like. It is intended that the water supplier is free to accredit their own staff, or use external contractors if this is more convenient. Nevertheless, the standards of accreditation may be more rigorous than present experience and practice in some areas of Victoria.</p> <p>NATA's comment of support is appreciated.</p> </p>
<p><b>Proposed amendment to regulation or instruction:</b> None arising from this process.</p>

<p><b>Subject (heading as used in drafting instructions):</b> Specifying analytical methodology</p>
<p><b>Comment from submission(s):</b>  <p><b>WW</b> – seeks a better understanding of the details of the mechanism for specifying a method of analyses to laboratories and the associated safeguards to ensure precision and capability of the laboratory to perform the method to NATA standards or equivalent.</p> <p><b>GVW, VWIA</b> echoed – stated that water suppliers face a significant risk with this regulation as variation in results between different test methods may drive costly augmentation of infrastructure and processes.</p> </p>
<p><b>Discussion and response to the comment:</b>  <p>The details of the process are expected to be developed by the regulatory office in due course in a consultative manner.</p> <p>It is anticipated that NATA would be significantly involved in the detail of these matters.</p> <p>The comment that methodology would “drive costly augmentation of infrastructure and processes” is, on balance, believed not to be a likely scenario, as there are significant checks and balances built into the risk management process, the audit process and the separate water industry pricing process to detect such anomalies.</p> </p>
<p><b>Proposed amendment to regulation or instruction:</b> None arising from this process.</p>

**Subject (heading as used in drafting instructions):**

Accreditation system for analysts (laboratories)

**Comment from submission(s):**

**MWC, VWIA** echoed - Laboratories should not just be accredited and approved by the Secretary for parameters but also for the detection limits associated with individual parameters.

**GVW, VWIA** echoed - Should be consistent in terms used to avoid ambiguity – analyst clearly relates to laboratory business, where laboratory could be interpreted to include GVW operational laboratories.

**WW** - Will DHS prepare and supply Western Water with a list of DHS Accredited Laboratories including a list of the parameters/methods for which accreditation is granted?

**NATA** – happy that the contents do not change the current situation regarding accreditation of testing labs.

**Discussion and response to the comment:**

The above comments are noted but relate to the detail of the process and do not alter the proposed drafting instructions. It is possible for detection limits to be included in technical documentation for methodologies, if desired.

Subject to final wording of the Regulations, DHS would in due course supply a list of accredited analysts.

The accreditation process would operate regardless of the ownership of a laboratory.

A point that has needed to be clarified in the drafting process is the degree to which the legislation differentiates between analysts and laboratories. Legal advice has indicated that the powers are interpreted as applying to analysts as persons rather than laboratories. This has changed the focus of this section of the regulations.

**Proposed amendment to regulation or instruction:**

None arising from this process. However updated legal advice has indicated that the legislation relates to analysts (as people) rather than laboratories, with consequent changes to the wording of this section of the regulations.

<p><b>Subject (heading as used in drafting instructions):</b> Specifying how results of analysis are to be reported</p>
<p><b>Comment from submission(s):</b> <b>GVW</b> – supported all aspects (no issues)</p>
<p><b>Discussion and response to the comment:</b> No other comments were received.</p>
<p><b>Proposed amendment to regulation or instruction:</b> None arising from this process.</p>

<p><b>Subject (heading as used in drafting instructions):</b> Illness reporting details and reporting of incidents that may have been caused by waterborne things</p>
<p><b>Comment from submission(s):</b> <b>GVW</b> – supported all aspects (no issues)</p> <p><b>CWW</b> – suggest replace term ‘things’ with words such as ‘agents’ or ‘substances’.</p> <p><b>MWC, VWIA</b> echoed - Should the regulations empower the Secretary to set trigger levels or other guidance for notification of specific parameters?</p>
<p><b>Discussion and response to the comment:</b> The term “things” is used in section 56 (1)(e) of the Act. “Things” is a broad term that is often used in legislation. There is unlikely to be any benefit in using a different term, but this is a drafting issue and not a substantive policy matter.</p> <p>The question of trigger levels is noted but would be determined in the day to day practice of the Department in liaison with the water industry.</p>
<p><b>Proposed amendment to regulation or instruction:</b> None arising from this process. However, the drafting process will consider the degree of overlap of this instruction with section 22 of the Act.</p>

<p><b>Subject (heading as used in drafting instructions):</b> Disclosure of public health risks associated with regulated water</p>
<p><b>Comment from submission(s):</b> <b>GVW</b> – supported all aspects (no issues)</p> <p><b>GLW</b> - Glenelg Water believe that the term “Regulated Water” sends a contrary message to that desired in that “regulated” implies that the water is controlled and thus fit for drinking. Care will need to be taken that the message gets out that “Regulated Water” is not fit for human consumption.</p>
<p><b>Discussion and response to the comment:</b> Whilst this is perhaps a new terminology for the water industry, it is unlikely that “regulated” would in practice imply the matter raised above. However, it is noted that this is an issue for careful consideration of communication strategies by the water industry and by regulators rather than wording of the regulations, which has already been determined in the Act.</p>
<p><b>Proposed amendment to regulation or instruction:</b> None arising from this process. However, the drafting process will consider the degree of overlap of this instruction with section 25 of the Act.</p>

<p><b>Subject (heading as used in drafting instructions):</b> Forms (<i>as required</i>) Any other matter or thing Subsequent amendments to any aspect of the regulations, including addition or deletion of standards.</p>
<p><b>Comment from submission(s):</b> <b>GVW</b> – supported all aspects (no issues)</p>
<p><b>Discussion and response to the comment:</b> No other comments were received.</p>
<p><b>Proposed amendment to regulation or instruction:</b> None arising from this process.</p>

## **5. Updated cost estimates**

It was expected that, as the November 2003 industry draft of the drafting instructions identified fewer standards and monitoring requirements than those set out in the 2001 documents, cost estimates would in general reduce. Whilst this was generally true, some new costings have been included which were not identified in the submissions from the previous rounds.

The costings from this round of consultation were compared to those from the November 2001 round, which was used as a base.

### **5.1 Impacts for the Melbourne metropolitan sector**

Melbourne Water, City West Water and South East Water submitted revised cost data. The costings for Yarra Valley Water were reviewed based on the data in their previous submission.

Attributable capital works costs reduced from approximately \$2 million to zero across the metropolitan area, due to the elimination of a proposed standard for pH. Incremental operating costs were also reduced, from approximately \$800,000 per annum to zero.

The other attributable cost reduction related to compliance monitoring for physical and chemical parameters no longer proposed as standards. This was reduced from approximately \$254,000 per annum across the metropolitan sector to \$94,000 per annum (a net decrease of 63%). The principal remaining components were for monitoring haloacetic acids. More detailed breakdowns are shown in Appendix 4.

There were no changes to the other cost estimates for the metropolitan sector.

### **5.2 Impacts for the regional urban water sector**

Ten submissions were received from businesses in this sector, of which eight provided updated costings data. The costings for the other regional urban water authorities were reviewed, where possible, based on the level of detail provided in their previous submissions. The review was based on the elimination of proposed standards and mandatory monitoring requirements for a number of physical and chemical parameters, compared to those in the previous consultation documents circulated in November 2001.

As was the case in the 2001 round of consultation, a number of water authorities submitted costings for capital works that were predominantly based on a realisation of present risks rather than on new regulatory requirements. As before, these costs were regarded as not attributable to the regulatory framework. A number of water authorities also updated some of their other costs, such as those for development of risk management plans, that they based on more recent experience.

The attributable costs from this round for this sector can be categorised as follows:

### 5.2.1 Risk management plans

**Central Highlands Water** updated their costs in this area from zero to \$316,000 once off and \$40,000 per annum review and \$42,000 per annum audit. This reflected a more considered approach by Central Highlands Water to their costings and can be regarded as attributable to the legislation.

**Glenelg Water** updated their costs to \$200,000 once off and \$10,000 per annum review and \$10,000 per annum audit (previously \$20,000 once off and \$2,000 per annum review and \$2,500 per annum audit). These updated costs are in line with experiences and data from other water authorities in this sector and hence have also been accepted.

**Central Gippsland Water** also updated their costs to \$380,000 once off and \$140,000 per annum review and \$50,000 per annum audit (previously \$610,000 once off and \$99,000 per annum review and \$50,000 per annum audit).

This sector total is consequently amended from:

- \$4,986,000 once off and \$982,000 per annum review and \$358,000 per annum audit to:
- **\$5,252,000 once off and \$1,070,000 per annum review and \$408,000 per annum audit.**

This is a net increase for this sector of approximately 5% once off, 9% review and 14% audit, compared to the previous costings. The costs are shown in Table 1 of Appendix 4.

### 5.2.2 Annual water quality report and other costs

**Central Highlands Water** updated their cost estimate from zero to \$75,000 per annum, based on extra resources required for the extra work. A number of other authorities made minor incremental changes to their cost estimates in this area, amounting to approximately \$95,000 per annum of extra attributable expenditure across the sector. These costs are believed to be reasonable across the industry and reflect more detailed disclosure requirements in the drafting instructions compared to those set out in the 2001 consultation documents.

This sector total is consequently amended from \$198,000 per annum to \$368,000 per annum (a larger net increase of approximately 85% but from a smaller dollar base).

### 5.2.3 Capital works and operational costs for standards

A number of regional urban water authorities updated their capital works and operational cost estimates for works attributable to the proposed regulated standards.

**Glenelg Water** updated its cost estimate for capital works for the Merino water supply, from \$660,000 to \$1.2 million, based on more recent costings, with no increase in operating costs. These works and the works for Macarthur and Coleraine were attributable to arsenic reduction or removal. Whilst the standard for arsenic of 0.007

mg/L is no longer being proposed, it is reasonable and conservative to retain the costs for these supplies because the principles of risk management that water businesses are being required to adopt would yield similar outcomes. The other costs identified by Glenelg Water were related to possible works that the communities may request for colour removal in other towns. These other costs were not regarded as attributable.

**Central Gippsland Water** has updated its cost estimate for Erica/Rawson from \$500,000 to \$1.5 million, to account for recent developments with regard to this system. Operational costs were modified from \$50,000 per annum to \$30,000 per annum. Costs for Yarragon were eliminated, as these were attributable to pH control, which is no longer proposed as a standard. New capital works were proposed for Toongabbie, Cowwarr and Boisdale, all of which were regarded as attributable.

**Goulburn Valley Water** cost estimates reduced significantly, from \$9,765,000 capital and \$839,000 per annum operational to \$4,310,000 capital and \$323,500 per annum operational. The remaining attributable capital works mainly relate to turbidity improvement works for a number of their supplies, such as Bonnie Doon, Eildon and Yea.

**Lower Murray Water** cost estimates have reduced from \$825,000 capital and \$93,000 per annum operational to zero, following the review of the turbidity standard from 1 NTU to 5 NTU. Works for Lancefield (**Western Water**) have also been eliminated, as these were mainly attributed to a previously proposed standard for iron.

**North East Water**, as part of the 2004 round of individual business consultation, updated its cost estimate for capital expenditure for the water supply to Bright, from \$2 million to "in the order of \$4 million". This is a result of a more detailed consultation process that this business is undergoing, along with their experience in the 2003 bushfires. This estimated cost increase was regarded as being attributable, due to its basis in significant risk assessment and the changed circumstances since 2001 for this business. However, works for Corryong and Dartmouth were eliminated, as these were mainly attributed to a previously proposed standard for iron.

**Central Highlands Water** added costings for new works proposed for disinfection by-product control (trihalomethanes, especially chloroform) for the Avoca and Maryborough water supply systems. Again, this reflected a more considered approach by Central Highlands Water to their costings and can be regarded as attributable to the legislation. The new works amounted to \$430,000 capital and \$35,000 per annum operational.

No change was proposed for costings in this category for Barwon Water, Coliban Water, East Gippsland Water, Grampians Water, Portland Coast Water, South Gippsland Water, South West Water or Westernport Water. Grampians Water noted that their future cost profile depended significantly on whether a number of small and remote town water supplies were likely to be regarded as potable or non-potable (regulated supplies).

This sector total is consequently amended from:

- \$17,880,000 capital and \$1,223,000 per annum operational to:
- **\$15,815,000 capital and \$508,000 per annum operational.**

This is a net decrease for this sector of approximately 12% capital and 59% per annum operational, compared to the previous costings.

It should be noted that, despite commentary by three water businesses in this round regarding monitoring for haloacetic acids, no water businesses identified any costs relating to treating drinking water to ensure that it complied with standards for haloacetic acids, either in this round of consultation or in the previous (November 2001) round.

Details of the updated costings for capital works are provided in Table 2 of Appendix 4.

#### **5.2.4 Microbiological monitoring costs**

Whilst microbiological monitoring cost estimates did not change to any significant degree compared to the previous estimates, a number of regional urban water businesses provided some new cost estimates for microbiological sampling and accreditation. Central Gippsland Water increased their estimate for microbiological monitoring to rectify an error in their previous submission. Goulburn Valley Water reduced their microbiological monitoring cost estimate to zero, as they now monitor at the proposed frequencies.

This sector total is consequently amended from \$702,000 per annum to \$750,000 per annum (a net increase of approximately 7%).

The updated costs are shown in Table 3 of Appendix 4 for the businesses concerned.

#### **5.2.5 Physical and chemical monitoring costs**

Costs for physical and chemical monitoring for most businesses in this sector reduced, due to the reduced number of parameters for which compliance monitoring would be required. In some cases, costs remained at the previous level, where this was requested by the business or there were no reasonable grounds to reduce the cost estimate. Central Highlands Water increased their estimate by \$67,000 to rectify an omission in their previous submission relating to monitoring disinfection by-products.

The principal component of the attributable costs related to the proposed compliance monitoring for haloacetic acids. The updated costs are shown in Table 3 of Appendix 4.

This sector total is consequently amended from \$1,145,000 per annum to \$789,000 per annum (a net decrease of approximately 31%).

### **5.3 Impacts for the rural water authorities, alpine resorts and Parks Victoria**

No submissions were received from the rural water authority sector, the alpine resorts sector or from Parks Victoria in this round. Review of the November 2001 costings indicate that they still form the best data available on which to estimate cost impacts for these sectors. The costs attributed to the rural water authority sector remain assigned as zero, based on that sector's previous submissions, as these costs were regarded as being included in the regional urban sector costs. This will not affect the statewide overall cost analysis.

Cost estimates for these sectors are therefore unchanged.

#### 5.4 Summary of updated cost estimates

The updated cost estimates for all sectors are shown in Table 4 of Appendix 4. The grey shading in Table 4 indicates the elements that have changes since the November 2001 consultation round. The sector sub-totals have also consequently been updated.

The **statewide total** is consequently amended from:

- \$28,813,000 once off or capital and \$7,644,800 per annum operational to:
- **\$25,014,000 once off or capital and \$5,969,800 per annum operational.**

This is an overall net decrease of approximately 13% for once off or capital and 22% per annum for operational, compared to the previous costings.

The updated data will be used in the cost benefit analysis for the Regulatory Impact Statement for the Safe Drinking Water Regulations.

## **6. Further consultation and communication activities**

During 2003/04, the Department undertook a range of formal and informal consultation and communication activities related to implementation and development of the Safe Drinking Water regulatory framework. These activities formed part of an overall strategy developed in mid-2003. The activities had a number of objectives:

- To inform debate in Victoria regarding the content of the proposed regulations;
- To complement the consultative panel process described earlier in this report;
- To inform stakeholders about the implementation process for the legislation;
- To inform the Department about localised water quality issues in Victoria and improve its understanding of and responsiveness to implementation issues; and
- To inform the development of the Water Plans by Victorian water businesses in 2004.

Whilst a number of activities continue beyond 1 July 2004 as the regulatory office develops further, the key activities undertaken in 2003/04 are summarised below.

### **6.1 Presentations and publications**

Departmental policy officers and managers presented the following papers at workshops and conferences in 2003/04. These activities also formed part of the Department's contribution in 2003/04 to the Co-Operative Research Centre for Water Quality and Treatment project 2.0.3.2.0.0 – Policy and Regulation Program Research.

**Bowman J:** (2003) Update on the Safe Drinking Water legislation for Victoria. *Proceedings of the Australian Water Association Victorian Regional Conference, Lorne, Victoria.* (Fri 17 October 2003)

**Labza B:** (2004) Update on the Safe Drinking Water Legislation for Victoria. *Presentation to the joint Australian Water Association / Institute of Water Administration Conference on Drinking Water, Phillip Island, Victoria* (Fri 27 February 2004)

**Labza B:** (2004) Landmark Safe Drinking Water Legislation For Victoria. *Proceedings of the Enviro 04 Convention and Exhibition, Sydney, Australia* (29 March 2004). CD-ROM

**Bowman J:** (2004) Update on the Safe Drinking Water Legislation for Victoria. *Presentation to the Board of Western Water, Gisborne, Victoria* (Wed 21 April 2004)

**Labza B:** (2004) Update on the Safe Drinking Water Legislation for Victoria. *Presentation to the joint DHS/Victorian Water Industry Association workshop on the Safe Drinking Water regulatory framework for Victoria, Melbourne, Victoria* (Thursday 29 April 2004)

A paper summarising the regulatory framework was also published in June 2004, as:

**Labza B:** (2004) Landmark Safe Drinking Water Legislation For Victoria. *Water - Journal of the Australian Water Association*, Volume 31 No 4 June 2004: pages 79 – 82.

## 6.2 Meetings with water industry stakeholders

Officers of the Department also met key staff members of Victorian water businesses and other water industry stakeholders in 2004. The meetings covered the Safe Drinking Water regulatory framework and also in many cases the Water Plans for the water businesses. These meetings formed part of the Department's commitment to consultation, including consultation required under the Minister for Water's Statement of Obligations and processes for Water Plans for Victorian water businesses.

This further consultation took place after the November 2003 industry draft of the drafting instructions for the regulations was distributed but before the public consultation process involving a Regulatory Impact Statement. The meetings resulted in some minor review of the water industry submissions, including for example a later submission from North East Water updating cost estimates for capital works for Bright. This submission was as a letter from Bruce Gardiner, Operations Manager at North East Water and was dated 9 July 2004. The meetings also clarified a number of other matters, such as which water supplies may be regarded as being non-potable (or regulated water).

A draft of the proposed **Safe Drinking Water Regulations** was circulated for comment at the 30 June 2004 meeting with representatives of the Departments of Sustainability and Development (DSE), Treasury and Finance (DTF), Premier and Cabinet (DPC) and the Essential Services Commission.

Officers of DPC and DTF advised by email later that they had no particular comments on the draft. An officer from the Essential Services Commission advised verbally that they had no specific comments at this time. DSE provided a number of technical suggestions, which were incorporated where possible in the drafting process.

It should also be noted that during early and mid 2004 the Department also commented on the DSE process preparing Statements of Obligations for Victorian water businesses and also participated in and provided comments for the Essential Services Commission's Working Group on Performance Indicators and Reporting for the Victorian water industry.

This participation ensured that these agencies were kept informed about the progress in developing the Safe Drinking Water Regulations and ensured that all programs were as consistent as possible. This process clarified, amongst other aspects, arrangements for water quality standards for Victoria for the interim period between 1 July 2004 and the proclamation date for the Safe Drinking Water Regulations.

The meetings are listed in reverse chronological order in the table in Appendix 3. The list includes key Government agencies and most water businesses in Victoria, except Lower Murray Water, East Gippsland Water and a number of individual alpine resorts and analytical laboratories.

## **APPENDICES**

### **Appendix 1 – Invitation to comment**

**Safe Drinking Water Regulations - Covering text for DHS email sent 24 November 2003**

*(as addressed in 24/11/03 email),*

Please find attached a draft copy of the drafting instructions for the proposed Safe Drinking Water Regulations, for your information.

Drafting instructions describe the intent and policy basis of proposed regulations, in order to guide their drafting by legal officers within Government. They are also used to guide the development of the Regulatory Impact Statement, as required under legislation.

This document will be of interest to water industry stakeholders. At this stage, we are circulating this draft version to the regulated bodies (i.e. water businesses, alpine resorts and Parks Victoria), in order to:

- Familiarise you with the proposed content;
- Invite comment on the proposed content; and
- Invite updates of cost estimates

The cost estimates are used in the Regulatory Impact Statement to balance the costs and benefits of the proposed regulations, so it is very important that the most up to date costs are used.

The starting point for evaluating the costs is the costs provided by each body in the January 2002 round of consultation. Although it would be possible to construct the Regulatory Impact Statement using these costs, both this Department and other Departments, including Treasury, would like to ensure that we are using the most recent information which specifically relates to the latest proposed regulatory content.

The principal areas that may affect costs are in the risk management plans and the monitoring and standards. The monitoring and standards, in particular, have changed since the Discussion Paper circulated in November 2001. Costs are therefore expected to be reduced.

The feedback and costs obtained from this process will be considered in finalising the regulations and Regulatory Impact Statement. The Regulatory Impact Statement is scheduled for public comment over the summer period. The Regulatory Impact Statement will include a copy of the proposed regulations as an appendix.

Your business's formal comments on the regulations will be sought at that time, however your informal comments on the draft documents and the most recent cost estimates will be appreciated.

Please peruse the documents and consider whether you wish to update your business's cost estimates compared to those provided in January 2002.

**Safe Drinking Water Regulations - Covering text for DHS email sent 24 November 2003**

The same criteria for consideration apply as applied in 2002. Proposed costs need to be:

- substantiated and
- directly attributable to regulatory content and
- be over and above existing expenditure, existing obligations or existing capital works programs

in order to be regarded as attributable under the Regulatory Impact Statement process.

There is no need to review cost arising from matters that are no longer proposed to be regulated, as we will automatically adjust these costs for the Regulatory Impact Statement.

If you would like to respond, please do so by close of business 11 December 2003. Emails are preferred but you may prefer to write or fax. To avoid ambiguity, please note that if you wish to update your business's cost information, the email, fax or letter must indicate that you are authorised to do so on behalf of your business.

If you have any queries, please do not hesitate to contact Brian Labza (as below) or John Siapantas on (03) 9637 4221.

The contact details are as follows:

Brian Labza  
Environmental Health Unit  
Dept of Human Services  
GPO Box 1670N  
Melbourne VIC 3001

Fax (03) 9637 4507

Phone (03) 9637 4088

Email [brian.labza@dhs.vic.gov.au](mailto:brian.labza@dhs.vic.gov.au)

**Appendix 2 – List of Submissions**

Submission Number	Code	Author	Title	Organisation	Format and date	Page count
--	DTF	Mr Vin Martin	Director, Economic, Social & Environmental Group	Department of Treasury and Finance	Separate letter 28/11/03	2
--	SWW	Leon de Villiers	Systems Co-ordinator	South West Water Authority	Email 01/12/03 requesting future meetings	1
1	CGW	Mr John Mitchell	Chief Executive Officer	Central Gippsland Region Water Authority	Email 09/12/03 of Letter 08/12/03	6
2	SGW	Mr Ravi Raveendran	Water Quality Manager	South Gippsland Region Water Authority	Email 10/12/03	7
3	BW	Dr Robert Considine	Water Quality Co-ordinator	Barwon Region Water Authority	Email 11/12/03	1
4	GLW	Mr Kevin Safe	General Manager	Glenelg Region Water Authority	Email 11/12/03 of Letter 11/12/03	6
5	MWC	Mr Kevin Hellier	Drinking Water Quality	Melbourne Water Corporation	Email 11/12/03	4
6	VWIA	Mr Mark Harvey	Chief Executive Officer	Victorian Water Industry Association	Email 11/12/03 of Letter 11/12/03	5
7	CWW	Mr Georges Ruta	Water Quality Scientist	City West Water Limited	Email 11/12/03	2
8	EGW	Mr Les Mathieson	Chief Executive Officer	East Gippsland Region Water Authority	Email 11/12/03 and Letter 12/12/03	4
9	GVW	Mr Allen Gale	Director Technical Services	Goulburn Valley Region Water Authority	Email 11/12/03 of Letter 10/12/03	10
10	GW	Mr Jeff Rigby	General Manager Operations	Grampians Region Water Authority	Email 11/12/03	3
11	SEW	Mr John Robertson	Manager Regulatory Reporting and Performance	South East Water Limited	Email 12/12/03 and Letter 18/12/03	3
12	WW	Mr Ray Borg	Manager, Water Systems	Western Region Water Authority	Email 15/12/03 of Letter 15/12/03	3
13	CHW	Mr Peter Kitney	Water Manager	Central Highlands Region Water Authority	Email 15/12/03 of Letter 13/12/03 and 4 March 2004	6 + 2
14	LMW	Mr Keith Neaves	Executive Officer, Environmental Services	Lower Murray Region Water Authority	Email 17/12/03	1
15	NATA	Mr Neil Shepherd	Regional Co-ordinator	National Association of Testing Authorities	Email 06/01/04 - <b>LATE</b>	1

**Appendix 2 continued**

Bodies that chose not to make a submission in the November 2003 round of the consultative process are listed below. The '##' symbol means that this body provided a staff member for the consultative panel for the proposed regulations in late 2003.

- Coliban Region Water Authority
- North East Region Water Authority (see note)
- Portland Coast Region Water Authority
- Westernport Region Water Authority
- Yarra Valley Water Limited ##
  
- Gippsland and Southern Rural Water Authority ##
- Goulburn-Murray Rural Water Authority
  
- Mount Buller Resort Management Board ##
- Falls Creek Resort Management Board
- Mount Hotham Resort Management Board
- Mount Baw Baw Resort Management Board
- Lake Mountain Resort Management Board
  
- Parks Victoria ##
  
- Water Services Association of Australia ##
- Australian Dental Association (Victorian Branch) ##
  
- Water Sector Services, Department of Sustainability and Environment (see note)
- Department of Premier and Cabinet
- Essential Services Commission

North East Water made a supplementary submission in a letter dated 9 July 2004.

Water Sector Services (DSE) provided comments by email after the 30 June 2004 meeting.

### Appendix 3 – List of meetings with water industry stakeholders

Date	DHS attendees	With	Principal contacts
Mon 12/07/04	Brian Labza, John Siapantas	Victorian Water Industry Association Dams Working Group	Colin Hill
Thu 8/07/04	John Siapantas, Brian Labza	North East Water	Don Jackson
Tue 6/07/04	John Siapantas, Brian Labza	Glenelg Water	Brian Jenkins
Wed 30/06/04	John Siapantas, Brian Labza, Julie Hoy	Government agencies DTF, DSE, DPC and Essential Services Commission	Marcus Crudden, Hugh Wilson, Lisa Saxton, Stuart Bowe
Fri 25/06/04	John Siapantas, Brian Labza, Sue Phillips	NATA	Neil Shepherd, Rob Oke
Tue 22/06/04	John Siapantas, Brian Labza	Mount Buller alpine resort	David Westphalen
Mon 21/06/04	Brian Labza, Sue Phillips	Central Gippsland Water	Steven Healy
Fri 18/06/04	John Siapantas, Brian Labza	South Gippsland Water	Brian Ashworth
Fri 11/06/04	Brian Labza, Julie Hoy	Goulburn Murray Water, Southern Rural Water	Pat Feehan, Brett Millington
Fri 4/06/04	Brian Labza, Julie Hoy, John Siapantas	Goulburn Valley Water	Bruce Hammond
Wed 2/06/04	John Siapantas	Portland Coast Water	Owen Phillis
Tue 1/06/04	Brian Labza	Westernport Water	James Young
Fri 28/05/04	John Siapantas	North East Water	Bruce Gardiner, Peter Whitehead
Fri 28/05/04	Brian Labza, Julie Hoy	Goulburn Murray Water, Wimmera Mallee Water, Southern Rural Water	Pat Feehan Brett Millington
Mon 24/05/04	Brian Labza	Coliban Water	Andrew Hunt, Peter Fyffe
Fri 21/05/04	Brian Labza	Central Highlands Water	Peter Kitney
Thu 20/05/04	Brian Labza, Julie Hoy	Parks Victoria	Andrew Paxton
Wed 19/05/04	Brian Labza	DHS non-metropolitan regional environmental health officers	David Rebbecchi, Max Murphy, Leanne Roberts
Wed 19/05/04	Brian Labza, John Siapantas, Julie Hoy	Alpine resort CEO's, some board members and DSE	Stuart Bowe, alpine resort CEO's

<b>Date</b>	<b>DHS attendees</b>	<b>With</b>	<b>Principal contacts</b>
Tue 11/05/04	Brian Labza, John Siapantas	Barwon Water	Rob Considine
Wed 5/05/04	John Siapantas	Portland Coast Water	Owen Phillis
Tue 4/05/04	Brian Labza, John Siapantas	South East Water	Greg Ryan
Tue 6/04/04	Brian Labza, John Siapantas, Sue Phillips	NATA	Neil Shepherd, Rob Oke
Thu 25/03/04	Brian Labza, John Siapantas	Western Water	Ray Borg, Julie Green
Thu 25/03/04	Brian Labza, John Siapantas	City West Water	David Heeps, Georges Ruta
Thu 18/03/04	Brian Labza, John Siapantas	Glenelg Water, Portland Coast Water South West Water	Brian Jenkins, Owen Phillis, Greg Gunn
Thu 11/03/04	Brian Labza	Central Highlands Water	Peter Kitney
Thu 4/03/04	Brian Labza, John Siapantas	Essential Services Commission	Marcus Crudden, Natalia Southern
Tue 2/03/04	Brian Labza, John Siapantas	Grampians Water	Jeff Rigby
Thu 26/02/04	John Siapantas, Jan Bowman	Yarra Valley Water	Sam Austin
Mon 16/02/04	Brian Labza, John Siapantas	Yarra Valley Water	Rod McCoy, Peter Ralph
Tue 10/02/04	John Siapantas, Jan Bowman	Melbourne Water	Peter Scott, Kevin Hellier
Wed 21/01/04	Brian Labza, John Siapantas	Barwon Water	Rob Considine

This table is referred to in section 6 of the report.

## Appendix 4 – Updated regulatory cost estimates

RISK MANAGEMENT PLAN COSTS									
UPDATED INFORMATION FOR SELECTED WATER BUSINESSES									
(For businesses not listed data is unchanged since previous round)									
Additional development cost of plans (if any)									
	Headworks and entry component	Zone component	Holistic and comprehensive risk management strategy	Water quality information plans and systems	Incident management plans and emergency response capability	Summary of risk management plans and systems	On going improvement cost	Audit cost (whole of business)	Substantiation and comment
BUSINESS			Once-off (\$)	Once-off (\$)	Once-off (\$)	Once-off (\$)	Annual \$	Annual \$	
CGW	Amended from:		\$472,800	\$114,800	\$0	\$22,000	\$99,300	\$50,000	Previous (Nov 2001) estimate
	Amended to:		\$380,000	\$0	\$0	\$0	\$140,000	\$50,000	Updated (Nov 2003) estimate - once off costs are aggregated.
CHW	Amended from:		\$0	\$0	\$0	\$0	\$0	\$0	Previous (Nov 2001) estimate
	Amended to:		\$104,000	\$97,000	\$40,000	\$75,000	\$40,000	\$42,000	Updated (Nov 2003) estimate
GLW	Amended from:		\$0	\$0	\$0	\$20,000	\$2,000	\$2,500	Previous (Nov 2001) estimate
	Amended to:		\$200,000	\$0	\$0	\$0	\$10,000	\$10,000	Updated (Nov 2003) estimate
<b>NET CHANGE:</b>		<b>(each column)</b>	<b>\$211,200</b>	<b>-\$17,800</b>	<b>\$40,000</b>	<b>\$33,000</b>	<b>\$88,700</b>	<b>\$49,500</b>	For CGW, CHW and GLW only
<b>NET CHANGE:</b>		<b>(Once-off)</b>	<b>\$266,400</b>			<b>(Annual review)</b>	<b>\$88,700</b>	<b>\$49,500</b>	<b>(Audit)</b>

## ESTIMATED INCREMENTAL COSTS TO MEET PROPOSED STANDARDS

## UPDATED INFORMATION FOR SELECTED WATER BUSINESSES

(For businesses not listed data is unchanged since previous round)

BUSINESS	Water supply zone or system	Capital works (\$)	Operational costs (\$ p.a.)	Standard for which works are required	Change compared to November 2001 submission and comments
CHW	Avoca	\$180,000	\$10,000	THM's	<i>(Previously not included)</i>
	Maryborough	\$250,000	\$25,000	THM's	<i>(Previously not included)</i>
CGW	Erica and Rawson	\$1,500,000	\$30,000	No information provided	<i>Previously \$500,000 capital and \$50,000 per annum (no longer attributable)</i>
	<del>Yarragon</del>	<del>\$ 180,000</del>	<del>\$ 30,000</del>	<del>pH &lt; 9.2</del>	<i>(newly added)</i>
	Toongabbie	\$ 1,600,000	\$ 15,000		
	Cowwarr				
	Boisdale	\$ 100,000	\$ -		<i>(newly added)</i>
	Other works	\$ 100,000	\$ -		<i>(newly added)</i>
GLW	Macarthur	\$ 600,000	\$ 40,000	Arsenic 0.007 mg/L	<i>(although standard is deleted, works remain attributable)</i>
	Merino	\$ 1,200,000	\$ -	Arsenic 0.007 mg/L	<i>Previously \$660,000 capital and \$7,000 per annum</i>
	Coleraine	\$ 510,000	\$ -	Arsenic 0.007 mg/L	<i>New clear water storage related to new Merino supply</i>
	All zones	\$10,400	\$ -		<i>Provision of sampling points - unchanged from previous GLW submission.</i>
GVW	All zones	\$ 4,310,000	\$ 323,500	<i>(refer below)</i>	
	(a range of towns)	\$3,600,000	\$285,000	Turbidity < 5 NTU	<i>(updated information)</i>
		\$700,000	\$35,500	THM's / HAA's	
		\$10,000	\$3,000	Aluminium	
LMW	<del>Mildura</del>	<del>\$ 800,000</del>	<del>\$ 90,000</del>	<del>Turbidity &lt; 1 NTU</del>	<i>(no longer attributable)</i>
	<del>Red Cliffs</del>	<del>\$ 25,000</del>	<del>\$ 3,000</del>	<del>Turbidity &lt; 1 NTU</del>	<i>(no longer attributable)</i>
NEW	All zones	\$ 4,897,500	\$ 60,000	<i>(refer below)</i>	
	Beechworth	\$420,000	\$0 ?		<i>(Calculated from previous submission - Bright capex increased from \$2,050,000 to \$4M, total is therefore rounded to \$4.9M).</i>
	Bright	\$4,000,000	\$30,000	Al, turbidity	
	Whitfield (principal components)	\$160,000	\$20,000	Turbidity < 5 NTU	
	Corryong	<del>\$555,000</del>	<del>\$30,000</del>	Fe	<i>Corryong and Dartmouth works no longer attributable.</i>
	Dartmouth	<del>\$280,000</del>	<del>\$20,000</del>	Fe	
WW	Lancefield	<del>\$ 1,000,000</del>	<del>\$ 50,000</del>	<del>Turbidity &lt; 1 NTU, Fe 0.30, Mn 0.10.</del>	<i>(Calculated from previous WW submission - no longer attributable)</i>
CWW	Werribee (zone 1)	<del>\$ 500,000</del>	<del>\$ 100,000</del>	pH	<i>(no longer attributable)</i>
SEW	Up to four zones	<del>\$1.5M - 2.0M</del>	<del>\$0.5M - 0.7M</del>	pH	<i>(no longer attributable)</i>
YVW	Healesville and Yarra Glen	<del>\$ -</del>	<del>\$ 101,924</del>	Turbidity < 1 NTU	<i>(Calculated from previous YVW submission - no longer attributable)</i>
		<b>DO NOT SUM</b>	<b>DO NOT SUM</b>		

ESTIMATED INCREMENTAL MONITORING COSTS				
UPDATED INFORMATION FOR SELECTED WATER BUSINESSES				
(For businesses not listed data is unchanged since previous round)				
BUSINESS	Type of sampling or monitoring cost	Previous (Nov 2001) estimate (\$)	Updated (Nov 2003) estimate (\$)	Substantiation and comment
CHW	Phys/chem	\$ -	\$ 67,000	For disinfection by-products.
CGW	Micro	\$ 12,200	\$ 37,000	New estimate from CGW.
	Phys/chem	\$ 39,420	\$ 77,880	HAA's (\$38,880) and turbidity (\$21,000) are main components.
	Accreditation	\$ -	\$ 5,600	New estimate from CGW.
COW	Phys/chem	\$ 75,000	\$ 25,000	Mainly DBP's (\$25,000).
EGW	Phys/chem	\$ 64,487	\$ 28,365	HAA's (\$27,000) are main components.
GLW	Accreditation	\$ -	\$ 5,000	New estimate from GLW.
GVW	Phys/chem	\$ 303,850	\$ 103,804	Turbidity and pH (\$10,350) and HAA's (\$59,400) are main components.
	Micro	\$ 136,750	\$ -	New estimate from GVW.
	Accreditation	\$ -	\$ 90,000	New estimate from GVW.
NEW	Phys/chem	\$ 165,766	\$ 98,800	HAA's (\$72,000) are main components.
PCW	Phys/chem	\$ 46,000	\$ 30,000	Estimated reduction
SGW	Phys/chem	\$ 101,486	\$ 52,332	HAA's (\$40,320) are main components.
	Micro	\$ 24,850	\$ 8,275	New estimate from SGW.
	Sampling resource	\$ -	\$ 72,000	
	Accreditation	\$ -	\$ 4,000	
SWW	Phys/chem	\$ 76,675	\$ 40,000	Estimated reduction
WW	Phys/chem	\$ 32,250	\$ 26,016	HAA's (\$21,120) are main component.
<b>SUM:</b>	<b>Regional urban phys/chem only</b>	<b>\$ 905,000</b>	<b>\$ 549,000</b>	(Rounded sums for the selected businesses)
	<b>Regional urban micro only</b>	<b>\$ 174,000</b>	<b>\$ 222,000</b>	(Rounded sums for the selected businesses)
CWW	Phys/chem	\$ 60,300	\$ 23,300	HAA's (\$18,000) are main components.
SEW	Phys/chem	\$ 65,860	\$ 31,620	HAA's (\$25,500) are main components.
YVW	Phys/chem	\$ 127,604	\$ 38,644	HAA's (\$37,224) are main components.
<b>SUM:</b>	<b>Metro phys/chem only</b>	<b>\$ 254,000</b>	<b>\$ 94,000</b>	(Rounded sums for the metropolitan businesses)

(NOTE: This page was used for the RIS and shows the modified data totals from the 2003 consultation round as shaded)

SECTOR	LEGISLATION				REGULATIONS					SUBTOTALS FOR EACH SECTOR		
	LEVY #	RMPS			REPORTING Annual (\$)	STANDARDS		MONITORING		Once-off (\$)	Annual (\$)	
	Proposed Annual (\$)	Establishment Once-off (\$)	Improvement Annual (\$)	Audit Annual (\$)		Capex Once-off (\$)	Opex Annual (\$)	Micro Annual (\$)	Phys / chem Annual (\$)			
Regional urban subtotal	(see note)	\$5,252,000	\$1,070,000	\$408,000	\$368,000	\$15,815,000	\$508,000	\$750,000	\$789,000	\$21,067,000	\$3,893,000	
Metropolitan subtotal	(see note)	\$59,000	\$40,000	\$35,000	\$25,000	\$0	\$0	\$20,000	\$94,000	\$59,000	\$214,000	
Rural water authorities subtotal	(see note)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Alpine resorts subtotal	(see note)	\$218,000	\$17,000	\$14,000	\$20,800	\$2,500,000	\$83,000	\$13,000	\$15,000	\$2,718,000	\$162,800	
Parks Victoria subtotal	(see note)	\$170,000	\$0	\$10,000	\$10,000	\$1,000,000	\$250,000	\$30,000	\$30,000	\$1,170,000	\$330,000	
<b>STATEWIDE TOTALS:</b>		<b>\$1,370,000</b>	<b>\$5,699,000</b>	<b>\$1,127,000</b>	<b>\$467,000</b>	<b>\$423,800</b>	<b>\$19,315,000</b>	<b>\$841,000</b>	<b>\$813,000</b>	<b>\$928,000</b>	<b>\$25,014,000</b>	<b>\$5,969,800</b>

# The preliminary total in this column was estimated by DHS in 2002 as a proposed levy contribution for the operating costs of the proposed drinking water regulatory office.

The figures in the other columns were derived from the water industry consultation process in 2001 and as updated in November 2003.

Metropolitan subtotal represents Melbourne Water Corporation, Yarra Valley Water, City West Water and South East Water.

RMPS means Risk Management Plans and Systems - please refer to policy documents for further detail.

Capex means capital expenditure, Opex means operational expenditure related to the capex, Micro means microbiological monitoring, Phys / chem means physical and chemical monitoring.