

Safe Drinking Water Act 2003 Annual report for the financial year ending 30 June 2024



Department of Health

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Safe Drinking Water Act 2003

Annual report for the financial year ending 30 June 2024

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Secretary's foreword

The 2023-24 financial year has seen transformational change in the way the Department of Health (the department) undertakes its regulatory functions. In December 2023, the Minister for Health announced the establishment of the Health Regulator, based within the People, Operations, Legal and Regulation Division. It commenced operations in February 2024 and includes most of the department's existing areas of regulatory responsibility. Consolidation of these regulatory functions and improved regulatory powers has led the department to adopt a modern riskbased regulatory approach. The regulatory model centralises resources and capability to maximise the department's effectiveness as a regulator, enabling it to respond more rapidly and allocate appropriate focus to key priority areas. Regulation plays a key role in contributing to the department's vision that Victorians are the healthiest people in the world.

The Health Regulator works toward increasing compliance with health laws to protect Victorians from serious harm. This includes regulation of water agencies with respect to compliance with the Safe Drinking Water Act 2003 and the Safe Drinking Water Regulations 2015.

The strategic focus for the Health Regulator between 2024 to 2026 is to establish and embed a regulatory approach grounded in bestpractice regulatory principles. The department is committed to continuous improvements and excellence in our regulatory practices.

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The sunsetting of the Safe Drinking Water Regulations 2015 is an opportunity for regulatory reform and policy shifts to pursue our vision by reshaping drinking water quality requirements and ensuring regulatory obligations imposed on water agencies as duty holders are up to date and tailored to address current and emerging issues.

This leads me to providing you with a statewide perspective of drinking water during 2023-24. There were 39 reports made by water agencies of known or suspected drinking water contamination. Five drinking water advisories were issued by water agencies to their customers to mitigate public health risks. There were 24 notifications made by water agencies of water supplied that otherwise did not meet drinking water quality standards.

Water agencies, as duty holders, are responsible to ensure that they address the cause of the reports and notifications made to the department, put in place measures to prevent recurrences and validate that those measures are effective.

I look forward to seeing the further outcomes of the Health Regulator's work in regulating safe drinking water for all Victorians.

tura Mr Will-

Professor Euan M Wallace AM Secretary Department of Health

Acknowledgement of Aboriginal people living in Victoria

The department acknowledges the strength of Aboriginal and Torres Strait Islander peoples across the Country and the power and resilience that is shared as members of the world's oldest living culture.

We acknowledge Aboriginal and Torres Strait Islander peoples as Australia's First People and recognise the richness and diversity of all Traditional Owners across Victoria.

We recognise that Aboriginal and Torres Strait Islander peoples in Victoria practice their lore, customs and languages, and nurture Country through their deep spiritual and cultural connections and practices to land and water. We are committed to a future based on equality, truth and justice. We acknowledge that the entrenched systemic injustices that Aboriginal and Torres Strait Islander peoples endure, including in our health system, and that Victoria's ongoing treaty and truth-telling processes provide an opportunity to right these wrongs and ensure Aboriginal and Torres Strait Islander peoples have the freedom and power to make the decisions that affect their communities.

We pay our deepest gratitude and respect to ancestors, Elders, and leaders - past and present. They have paved the way, with strength and fortitude, for our future generations.

Introduction

The Safe Drinking Water Act 2003 (the Act) and the Safe Drinking Water Regulations 2015 (the Regulations) provide Victorian water agencies and the Department of Health (the department) with a framework to ensure the supply of safe drinking water that supports the health and wellbeing of Victorian communities.

Section 32 of the Act requires the Secretary to give to the Minister a report in respect of each financial year that:

- a) provides a statewide perspective of drinking water quality; and
- b) provides details of the activities of the Secretary under this Act during the year and of the costs of those activities; and
- c) includes any other details that the Minister has asked the Secretary, by written notice, to include in the report.

This annual report provides a state-wide perspective of drinking water quality and details the department's regulatory activities during the 2023-24 financial year. Victoria's 20 water agencies are required, under s 26 of the Act, to submit an annual report to the Secretary on issues relating to the quality of drinking water and regulated water by 31 October each year. Water agencies' annual reports help inform the state-wide perspective of drinking water quality.

In-depth information on the performance of each water agency can be found in their annual reports available on their websites. A summary of water agencies' performance is included in this annual report's 'Drinking water quality performance and regulatory requirements' section.

The Act requires this report to be provided to the Minister for Health no later than 28 February each year.

Water regulation in Victoria in 2023-24: a snapshot



477 water sampling localities

Noncomplying water

24 notifications were made under s 18 of the Act regarding water that did not meet a drinking water quality standard under r 12 of the Regulations.





Customer complaints 9,057drinking water quality complaints

Known or suspected contamination





39 reports of known or suspected contamination were made under s 22 of the Act.

5 drinking water advisories were issued comprising of 1 boil water advisory, 4 do not drink advisories.

14 reports due to *E*. *coli* detections.



Legislation

Safe Drinking Water Act

The Safe Drinking Water Act 2003 (the Act) commenced on 1 July 2004.

The purpose of the Act is 'to make provision for the supply of safe drinking water'. The Act -

- a) requires water suppliers and water storage managers to prepare and implement plans to manage risks in relation to drinking water and some types of non-potable water; and
- b) provides for the auditing of those plans by approved auditors; and
- c) requires water suppliers to ensure that the drinking water they supply meets quality standards specified by the regulations; and
- requires water suppliers to disclose to the public information concerning the quality of drinking water; and
- e) provides for the variation, after community consultation, of water quality standards that relate only to aesthetic factors; and
- f) requires the reporting of known or suspected contamination of drinking water to the Secretary to the Department of Health; and
- g) empowers the Secretary to enforce this Act.

Safe Drinking Water Regulations 2015 review

The Safe Drinking Water Regulations 2015 (the Regulations), made under the Act, outline key requirements for the supply of safe drinking water in Victoria. The Regulations are set to expire on 7 July 2025.

The department is currently reviewing the Regulations to develop updated regulations that aim to:

- Support a data-driven, risk-based approach to regulation
- Align risk management requirements with industry best practice
- Establish more comprehensive enforceable drinking water quality standards that reflect the latest scientific knowledge and research on what constitutes safe and aesthetically pleasing drinking water.

As part of the review, the department published a discussion paper in November 2024 to seek public feedback on proposed changes. This consultation provided an opportunity for the water sector and other interested parties to share their views and inform the development of a Regulatory Impact Statement and draft regulations, which are expected to be published in March 2025. A further period of public consultation will follow, principally through publication of draft updated Regulations and a Regulatory Impact Statement for further feedback.

Administration of the Act

Functions of the Minister for Health

The Act provides several functions and powers to the Minister for Health, including the authority for:

- declaring non-drinking water to be regulated water
- approving water supplier variations to drinking water aesthetic standards
- exempting water suppliers from a drinking water quality standard
- imposing conditions relating to drinking water variations or exemptions
- determining a period for which an administration levy is payable by water agencies, apportioning the amount between the water agencies and ensuring payment into the Consolidated Fund
- ensuring an annual report on drinking water quality is provided to each House of the Parliament no later than the sixth sitting day after receiving the report.

Functions of the Secretary

The Secretary of the department is responsible for the general administration and enforcement of the Act. The functions of the Secretary under the Act include:

- protecting public health in relation to the supply of drinking water
- monitoring and enforcing compliance with the Act and the Regulations
- reporting on the performance of water agencies in relation to the requirements under the Act
- investigating and reporting on any aspect of drinking water quality in Victoria
- making recommendations to the Minister for Health on any matter relating to drinking water or regulated water
- promoting industry and public awareness and understanding of drinking water quality issues.

The Secretary also has the following specific authority under the Act:

- do all things necessary to carry out their functions, including requiring a water agency to give specified information
- accept an undertaking by a water agency relating to a contravention of the Act
- issue an enforcement notice to a water agency if it contravenes specific sections of the Act or breaches an undertaking
- establish and maintain a register of variations, exemptions and undertakings
- direct a water agency to provide specified information and take specified corrective action, if there is a risk to public health
- appoint authorised officers and permit them to assess and address immediate risks to public health relating to drinking water
- require water agencies to have their risk management plans audited and approve the auditor.

Establishment of the Health Regulator

In December 2023, the Minister for Health announced the establishment of the Health Regulator to better protect Victorians and provide greater consistency to regulation across the health system. The Health Regulator was formally established in February 2024 and comprises teams focused on regulatory compliance and operations, permissions and licensing, regulatory strategy, intelligence, performance and capability and regulatory policy and reform. It regulates thousands of professionals, organisations and businesses across the State. The Health Regulator regulates safe drinking water under the Act.

Water agencies

The Act requires water agencies to provide safe, good-quality drinking water. In 2023-24, the department regulated 20 water agencies, with the Act distinguishing between two types of water agencies: water storage manager and water supplier. The Act applies to all water agencies involved with the storage, treatment and distribution of drinking water and regulated water. This includes state-owned water corporations and other statutory authorities that supply drinking water to the public, including Parks Victoria and Alpine Resorts Victoria.

Water agencies, depending on whether they are a water storage manager or a water supplier, have a range of obligations under the Act, including:

- preparing, implementing and continuously reviewing a risk management plan in relation to drinking water, that is subject to audits
- ensuring the drinking water they supply meets drinking water quality standards specified by the Regulations
- notifying the Secretary of drinking water that does not comply with a water quality standard
- reporting any known or suspected contamination of drinking water to the Secretary
- providing an annual report related to the quality of drinking water and regulated water to the Secretary no later than 31 October each year

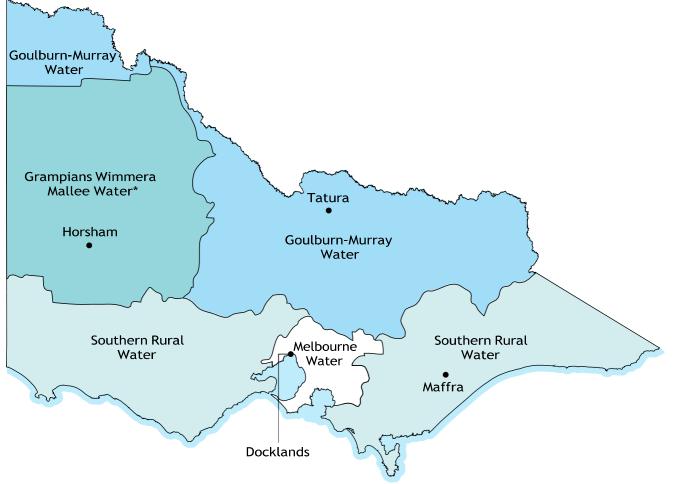
Water storage managers

Water storage managers (Figure 1) store water and supply it to water suppliers.

There are four water storage managers: Melbourne Water supplies untreated and treated drinking water to water suppliers, while Goulburn-Murray Water, Southern Rural Water and Grampians Wimmera Mallee Water supply untreated water to water suppliers.

Grampians Wimmera Mallee Water operates as both a water storage manager and a water supplier.





- Water storage manager head office location
- * Grampians Wimmera Mallee Water is both a water supplier and water storage manager

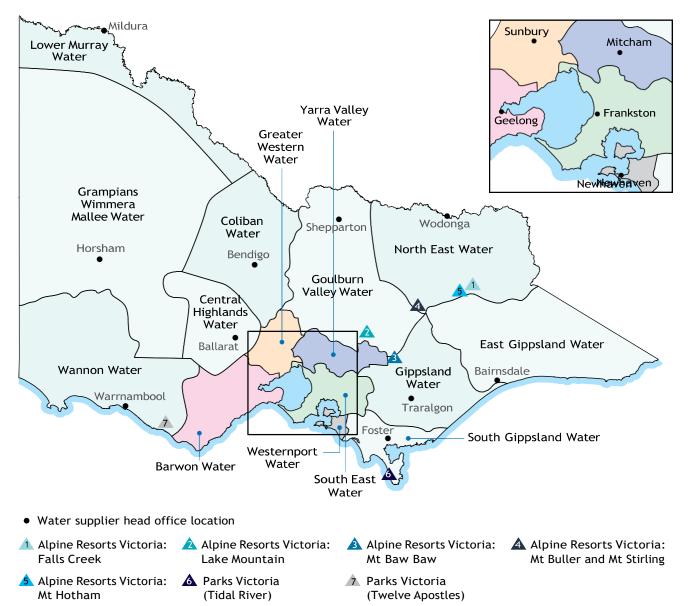
Water suppliers

Most Victorians receive reticulated drinking water from a water supplier, that serves a specific geographic region (Figure 2). Within each region, all areas that are supplied with drinking water must be within a water sampling locality, as defined under the Regulations. A water sampling locality is a area where collected water samples are representative of the drinking water supplied to that specific area.

As of 1 October 2022, 17 water suppliers in Victoria are responsible for ensuring that their drinking water meets the drinking water quality standards. Among these, three metropolitan water suppliers receive treated drinking water from Melbourne Water (water storage manager) and apply additional treatment (secondary chlorination). The remaining 14 water suppliers apply primary and secondary treatment to untreated water to ensure all customers receive safe drinking water.

Seven water suppliers also manage regulated water supplies (water that could be mistaken for drinking water, such as untreated reticulated water for non-drinking domestic uses). Specific provisions for managing the risks associated with these water supplies are included in the Act and the Regulations.





Safe drinking water administration levy

In accordance with s 51 of the Act, water agencies pay a levy to assist in defraying the costs of administering the Act. The meaning of costs of administering the Act is detailed in s 52 of the Act. The proportion of levy that each water agency pays is based on a methodology that the Minister for Health considers fair and has been subject to consultation with stakeholders as required under s 53(d) of the Act.

For 2023-24 there was no change to the levy methodology. Key steps in its calculation were:

- 1. The department estimates its annual cost of administering the Act.
- 2. The rural water storage managers, Parks Victoria and Alpine Resorts Victoria are levied a flat rate of 0.15% of the department's annual cost estimate.
- 3. The balance of the department's annual cost estimate is apportioned to each of the state's water suppliers proportional to their number of customer connections previously approved by the minister.

4. The levy for the three metropolitan water suppliers is discounted by 25%, and this proportion is allocated to Melbourne Water, which supplies their treated drinking water.

The administration levy for the 2023-24 financial year was \$1,475,769 which was apportioned amongst the water agencies.

In 2022-23, the administration levy was \$1,353,763. The administration levy for 2023-24 is slightly higher due to the application of a cost indexation of four per cent to the actual costs in 2022-23. Four per cent is in line with the DTF Cost Recovery Guidelines for 2023-24 and reflects the maximum annual rate to increase fees.

Table 1 shows the department's costs in administering the Act in this reporting period, along with a comparison with the previous two financial years.

Table 1: Department expenditure to administer the Safe Drinking Water Act, 2021–22 to 2023–24

Expenditure type	2021–22	2022–23	2023–24	Variance to prior year
Salaries, allowances and salary-related on-costs	\$929,748	\$1,139,612	\$1,303,125	-\$163,513
Indirect costs	\$114,688	\$157,974	\$80,420	-\$77,554
Operating costs	\$225,899	\$81,493	\$37,081	-\$44,412
Communication and education	\$0	\$2,080	\$ 0	-\$2080
Research and development	\$60,500	\$5,500	\$5,000	-\$500
Information technology	\$22,259	\$32,350	\$31,510	-\$840
Total expenditure	\$1,353,094	\$1,419,009	\$1,457,136	-\$38,127

The department contributed funds to Water Research Australia for research into Improving Analysis in Response to Extreme Events - Project 1152 (\$5,500 GST inclusive) with an expected completion date of 2025.

Drinking water quality performance and regulatory requirements in 2023–24

Water sampling localities

Water suppliers are required to collect drinking water samples from water sampling localities that have been specified under r 6 of the Regulations. A water sampling locality is a discrete geographical area where water samples collected are representative of the drinking water supplied to that area.

All locations supplied with drinking water must be within a water sampling locality boundary. This allows water suppliers to determine any issues with drinking water sources, treatment processes or distribution systems, and to address any customer complaints.

As of 30 June 2024, there were 477 water sampling localities, increasing by one with the inclusion of Ultima by Grampians Wimmera Mallee Water from the previous reporting period.

Drinking water quality standards

Section 17 of the Act requires water suppliers to ensure all drinking water supplied complies with quality standards. The drinking water quality standards are specified under r 12 of the Regulations, which states that drinking water supplied within a water sampling locality must not:

- exceed the standard set out in Schedule 2 of the Regulations (r 12(a))
- contain any algal toxin, pathogen, substance or chemical, whether alone or in combination with another toxin, pathogen, substance or chemical, in such amounts that may pose a risk to human health (r 12(b)).

Schedule 2 of the Regulations prescribes three drinking water sample parameters which must be analysed, the required frequency of analysis and the respective water quality standard that must be met (Table 2).

For parameters not specified in Schedule 2 of the Regulations, the Australian Drinking Water Guidelines is the authoritative reference for health-based guideline values and is used to determine compliance with r 12(b) of the Regulations.

Table 2: Safe Drinking Water Regulations Schedule 2 drinking water quality standards

Parameter	Sampling frequency	Quality standard
E. coli	Weekly	No E. coli per 100 mL, with the exception of any false-positive sample
Total trihalomethanes	Monthly	≤ 0.25 mg/L
Turbidity	Weekly	The 95th percentile of results for samples in any 12-month period must be \leq 5.0 Nephelometric Turbidity Units

Notification of non-complying water supplied

The Act requires a water supplier to notify the department if it becomes aware that the drinking water it is supplying does not comply, or is unlikely to comply, with a relevant drinking water quality standard. Section 18 of the Act requires this notification in writing and within 10 days of the water supplier becoming aware of the noncomplying water.

In 2023-24, six water suppliers submitted a total of 24 notifications on water that did not meet a standard under either r 12(a) (compliance with Schedule 2 drinking water quality standards) or r 12(b) (compliance with any other drinking water quality standards).

Of the 24 notifications in 2023-24, 19 were for noncompliance with r 12(a) and five related to noncompliance with any other drinking water quality standards under r 12(b), as outlined in the sections below.

Appendix 1 lists all s 18 notifications for the reporting period.

Regulation 12(a): compliance with Schedule 2 drinking water quality standards

To comply with r 12(a), drinking water samples must be analysed for the parameters under Schedule 2 drinking water quality standards of the Regulations, as shown in Table 2 above.

In this reporting period, there were 19 notifications by three water suppliers, Coliban Water, Goulburn Valley Water and South Gippsland Water representing seven water sampling localities that did not meet either the *E. coli* or total trihalomethanes (THM) parameter of the Schedule 2 drinking water quality standards. This is an increase from 12 notifications from six water suppliers representing 14 water sampling localities in 2022-23.

There was a three-fold decrease in the number of *E. coli* samples not meeting the drinking water quality standard and a significant increase to the THM standard not being met compared to the previous reporting period (Table 3).

	Water samp	les not meeting the qual	ity standard
Parameter	2021–22	2022–23	2023–24
E. coli	3	9	3
Total trihalomethanes	1	3	16
Turbidity	0	0	0
Total	4	12	19

Table 3: Water samples not meeting Schedule 2 drinking water quality standards, 2021–22 to 2023–24

Escherichia coli

Schedule 2 of the Regulations requires that all drinking water samples collected in each water sampling locality on a weekly basis are found to contain no *E. coli* per 100 mL, with the exception of any false-positive samples. The detection of *E. coli* can signal microbial contamination and therefore any detection must be immediately reported to the department under s 22 of the Act. More information on all *E. coli* detections can be found in the 'Reports of known or suspected contamination' section of this report.

When *E. coli* is detected in drinking water, an investigation is undertaken by the water supplier in accordance with the department's Guidelines for the investigation and reporting of *E. coli* detections. If the investigation concluded that the sample taken was representative of the drinking water supplied in the relevant water sampling locality, a notification must be made to the department under s 18 of the Act.

A total of three *E. coli* notifications were made by South Gippsland Water in the 2023-24 reporting period. The investigations into these notifications concluded that the samples did not meet the criteria for a 'false positive' under Schedule 2 of the regulations. The likely cause identified by South Gippsland Water was due to potential ingress into the Poowong clear water storage following heavy rainfall. The three non-compliance notifications were from the connecting localities of Poowong and Nyora and led to the issuance of a boil water advisory by South Gippsland Water

Total trihalomethanes (THMs)

Total THMs are a group of disinfection byproducts formed when chlorine reacts with a range of organic matter in water. Schedule 2 of the Regulations requires that all drinking water samples collected in each water sampling locality on a monthly basis are not to exceed the quality standard for Total Trihalomethanes of 0.25 mg/L.

Coliban Water made 15 notifications for exceeding total THMs, eight at the Tarnagulla water sampling locality; four at Bealiba, two at Dunolly and one at Laanecoorie. These exceedances attributed from a decline in raw water quality from the Loddon River and the free chlorination program, where the disinfection process was changed from chloramination to free chlorination to manage nitrification within the distribution network.

One notification was made by Goulburn Valley Water for a sample taken at the Katamatite locality. The exceedance was caused by dissolved organics in the raw water creating a high chlorine demand.

All water agencies in Victoria monitor for total THMs as required by the Regulations, including those that only use ultraviolet (UV) disinfection for primary treatment.

Turbidity

Turbidity is the cloudiness of water caused by the presence of fine, suspended matter. Schedule 2 of the Regulations require the 95th percentile of results for drinking water samples in any 12-month period to not exceed 5.0 Nephelometric Turbidity Units.

Performance summary of Schedule 2 parameters

During the reporting year, 470 out of 477 sampling localities continuously met Schedule 2 drinking water quality standards.

Regulation 12(b): compliance with other drinking water quality standards

To manage compliance with r 12(b), and as part of their water sampling program, water suppliers use a risk-based approach to determine the water quality parameters, water sampling locations and frequency of testing in their risk management plans. Water suppliers and each water supply system face different risks, that can be influenced by factors such as the characteristics of the water supply catchment, treatments applied and supply system arrangements. Water suppliers' water sampling programs are commensurate with this risk and tailored to each water sampling locality and supply system.

Three water suppliers notified the department of a total of three parameters; trichloroacetic acid, manganese and total chlorine, that did not meet a water quality standard under r 12(b) (compliance with any other drinking water quality standards).

As Table 4 shows, there was a total of five notifications in 2023-24, a decrease of two instances in water samples not meeting other drinking water quality standards compared with the previous reporting period.

	Water sampl	es not meeting the quali	ty standards
Parameter	2021–22	2022–23	2023–24
Chlorine	1	1	1
Bromate*	1	0	0
Trichloroacetic acid*	0	3	3
Lead	1	1	0
Manganese	1	2	1
Total	4	7	5

Table 4: Water samples not meeting other drinking water quality standards, 2020–21 to 2022–23

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* Disinfection by-products.

Disinfection by-products

Production of safe drinking water and maintaining microbial safety throughout the supply and reticulation system typically requires the addition of a residual disinfectant. Reactions of chlorine disinfectants with natural organic material in source waters can produce disinfection byproducts. Although prolonged exposure to high concentrations of disinfection by-products may increase risks to human health, short-term, lowlevel exceedances of the health guideline values do not present a risk to health.

While total THMs are included in the Schedule 2 standards, water agencies also sample for other disinfection by-products where relevant. In 2023-24, North East Water made one notification affecting the water sampling localities of Wodonga Low Level, Wodonga High Level, Wodonga – Baranduda High Level and Ebden Baranduda Low Level, which did not meet the standard for chlorine. Alpine Resorts Victoria made three notifications affecting the water sampling locality of Mount Baw Baw for trichloroacetic acid (TCA) during the reporting period (Table 4 and Appendix 1).

Metals

Metals may be present in drinking water for several reasons, including:

- those resulting from contamination or naturally present in source waters that haven't been removed via treatment
- leaching from metal pipework and fittings
- their use in treatment processes (such as alum coagulant).

Gippsland Water made one notification in which the Neerim South water sampling locality did not meet the standard for manganese (Table 4 and Appendix 1).

Variations of aesthetic standards

Section 19 of the Act allows the Minister for Health to vary the aesthetic standards of drinking water on application by a water supplier. During the year there were no applications by water suppliers to vary aesthetic standards. There are no existing variations to aesthetic standards.

Exemption from water quality standards

Section 20 of the Act allows the Minister for Health to exempt a water supplier from the obligation to comply with a drinking water quality standard for a specified period, provided that adequate measures are proposed to eliminate or minimise any risks to public health.

During the year there were no applications from water suppliers to be exempted from meeting a drinking water quality standard under the Regulations. There are no existing exemptions from meeting a water quality standard.

Reports of known or suspected contamination

Under s 22(1) of the Act, an officer of a water supplier, water storage manager or council is required to immediately report to the Secretary if they believe, or suspect on reasonable grounds, that water supplied, or to be supplied, for drinking purposes either:

- may be the cause of an illness
- may be the means by which an illness is being, has been or will be, transmitted
- may contain any pathogen, substance, chemical or blue-green algae toxin, whether alone or in combination, at levels that may pose a risk to human health, or
- may cause widespread public complaint.

In 2023-24 there were 39 reports made under s 22 of the Act by 15 water agencies compared with 68 reports in the previous year (Table 5), a decrease of approximately 43%.

Reported issues are broadly grouped into various categories in Figure 3, *E. coli* detections, widespread public complaints and the other category dominated the primary causes for s 22 reports for this reporting period.

Many of the reports were preventable, indicating that water agencies need to improve their proactive management of foreseeable risks to their drinking water quality. Incident trends and some specific incidents are discussed in more detail in the 'Emergency preparedness and incident management' section of this report.

These reports are discussed in detail below. See Appendix 2 for all s 22 reports received in 2023-24.

Table 5: Number of reports made under section 22 of the Act, 2021–22 to 2023–24

Reporting period	Number of s. 22 reports
2023-24	39
2022-23	68
2021-22	43

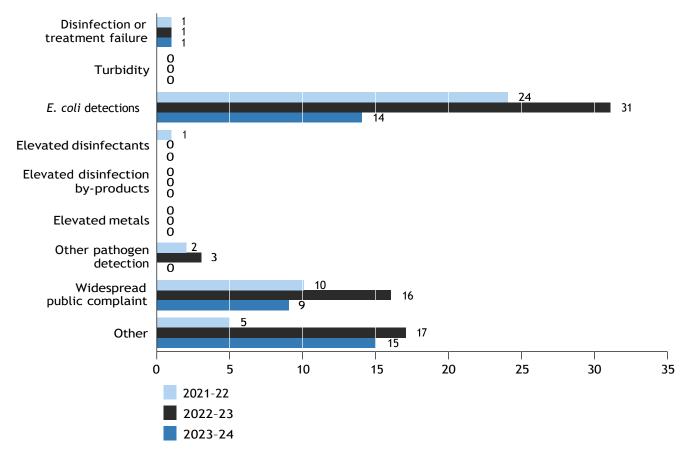


Figure 3: Categories of reports made under section 22 of the Act, 2021–22 to 2023–24

Escherichia coli detections

During this reporting period there were 14 reports of *E. coli* detections compared with 31 in the previous year, a decrease of 55%. Of the 14 reports to the department, 15 water samples with *E. coli* detections were assessed for compliance with the *E. coli* drinking water quality standard as one report contained two positive *E. coli* results. Twelve were found to have met the criteria of false positive samples under Schedule 2 of the Regulations for the *E. coli* standard and three noncompliant samples indicating non-compliance with water quality standards. A boil water advisory was issued for the water sampling localities of Nyora and Poowong. Investigations by water suppliers into the *E. coli* detections attributed likely causes to inappropriate sample locations, sample contamination through the sampling process, wet weather conditions and laboratory analysis issues.

Seven water agencies reported *E. coli* detections with North East Water reporting detections on four occasions, South Gippsland Water on three occasions, Alpine Resorts Victoria and Wannon Water on two occasions (Appendix 2).

Widespread public complaints

There were nine reports of widespread public complaints in this reporting period by water suppliers.

Five water agencies reported widespread public complaints, with Yarra Valley Water reporting on four occasions, Gippsland Water on two occasions, Coliban Water, Goulburn Valley Water and Lower Murray Water on one occasion (Appendix 2).

Widespread public complaints in the 2023-24 reporting period were due to the presence of taste and odour compounds (geosmin and 2-Methylisoborneol), low water pressure events and the resuspension of sediments from changes to water flow and from water main bursts.

Other reports

There were 15 'Other' categories of reports during 2023-24. Of the 15 reports, three resulted in the issuing of drinking water advisories. Grampians Wimmera Mallee Water issued a 'Do not drink' advisory for the Pomonal water sampling locality due to water supply integrity concerns caused by bushfires. Yarra Valley Water issued a 'Do not drink' advisory to the Malvern and Whittlesea water sampling locality for potential water supply system ingress and tank integrity respectively.

The Emergency preparedness and incident management section of this report provides a summary on the five drinking water advisories issued by water agencies in this reporting period. Four reports were related to two separate reports by Gippsland Water and Southern Rural Water for submerged car in Blue Rock Lake reservoir in February and April 2024.

The types of incidents from the remaining eight other reports include cross connection with recycled water mains, water main breaks resulting in no water or low pressure, ingress to storage tank, dead animal found in tank and identification of galvanised reticulation water main.

Drinking water quality complaints

Customer satisfaction can be a key indicator of water agency performance. As per the Regulations, water suppliers are required to provide a summary of drinking water quality complaints received in their annual reports. Customer complaints do not always correlate directly to human health risks, such as those relating to water quality aesthetics or taste and odour issues.

Table 6: Drinking water quality complaints by water suppliers, 2021-22 to 2023-24

		Number of complaints			Type of co	omplaints		
		2021–22	2022–23	2023–24	Variance from 2022–23 to 2023–24 ^a	Discolour/ turbidity/ dirty water	Taste and odour	Other ^c
Metr	opolitan water suppliers							
1	Greater Western Water	1,170	1,242	1,786	↑ 44%	***	**	*
2	South East Water	966	2,388	2,362	↓ -1%	***	**	*
3	Yarra Valley Water	3,081	2,994	3232	↑ 8%	***	**	*
Regio	onal water suppliers							
4	Barwon Water	201	209	267	↑ 28%	**	***	*
5	Central Highlands	88	84	40	↓ -52%	***	**	*
6	Coliban Water	181	244	210	↓ -14%	***	**	*
7	East Gippsland Water	53	36	38	↑ 6%	**	***	*
8	Gippsland Water	112	223	280	↑ 26%	***	**	*
9	Goulburn Valley Water	155	323	203	↓ -37%	***	**	*
10	Grampians Wimmera Mallee Water	51	49	53	↑ 8%	***	**	*
11	Lower Murray Water	26	79	128	↑ 62%	***	**	*
12	North East Water	170	276	240	↓ -13%	***	**	*
13	South Gippsland Water	51	39	85	↑ 118%	***	**	*
14	Wannon Water	101	127	106	↓ -17%	***	**	*
15	Westernport Water	46	21	27	↑ 29%	**	***	*
16	Other water suppliers ^b	0	0	0	-	-	-	-
Total		7,928	8,334	9,057	↑ 9%	***	**	*

Notes

- a. Figures with a red upwards arrow denote an increase in customer complaints from 2022-23. Figures with a green downwards arrow denote a decrease in customer complaints from 2022-23.
- b. Parks Victoria and Alpine Resorts Victoria did not have any water quality complaints during the reporting year.
- c. The column relating to 'Other' complaints covers a broad range of enquiries such as, alleged Illness, requests for

data, white water, blue water, air in water, problems with aquatic animal pets and corrosion of internal household plumbing or appliances.

- *** Most common
- ** Second most common
- * Least common

In 2023-24, 15 water suppliers received a total of 9,057 drinking water quality complaints.

Risk management plan audits

Under s 7 and s 8 of the Act, water agencies must prepare, implement and continuously review and revise risk management plans. Section 11 of the Act enables the Secretary to require a water agency to have its risk management plan audited by an approved auditor during a specified period.

Approved auditors must assess risk management plans to determine whether a water supplier or water storage manager has complied with the obligations imposed by s 7 and/or s 8 of the Act during the audit period.

The risk management plan audits were completed during 2023 and covered the period from 1 January 2021 to 31 December 2022. Compliance with s 7 and/or s 8 of the Act was detailed in the department's 2022-23 annual report on Victoria's drinking water quality. In brief, the auditors identified that nine water agencies were noncompliant with s 7 (1) of the Act during the audit period: Alpine Resorts Victoria – Mount Hotham Alpine Resort, Lake Mountain Alpine Resort and Mount Baw Baw Alpine Resort, Barwon Water, Central Highlands Water, Coliban Water, East Gippsland Water, Gippsland Water, Greater Western Water and South East Water. Barwon Water and East Gippsland Water were found to be noncompliant for the second consecutive audit period.

The status of progress by water agencies in addressing risk management plan audit findings can be found in Table 7. It should be noted that water agencies are not required to address opportunities for improvement (OFI) but do so for continuous improvement. Details on audit outcomes can be found in each water agency's drinking water quality annual report, available on their websites.

Thirty non-compliances and 171 OFIs were identified relating to risk identification and assessment underscores a need for water agencies to focus on continuous improvement of their risk management assessments and practices.

It should be noted that the alpine resort management boards were regarded as distinct water agencies before merging on 1 October 2022, therefore individual audits were conducted for each Alpine Resort Management Board's risk management plan.

Water agency	Risk management plan audit outcome	No. of major and/or minor noncompliances	No. of OFIs	No. of completed findings (reported in water agency's 2023- 24 annual report)
Alpine Resorts Victoria; Falls Creek Alpine Resort	Complied with the obligations imposed by s 7(1) of the Act during the audit period	0	8	7 OFIs
Alpine Resorts Victoria; Lake Mountain and Mt Baw Baw Alpine Resort	Did not comply with the obligations imposed by s 7(1) of the Act during the audit period	5 major noncompliances (Mt Baw Baw) and 4 minor noncompliances (Mt Baw Baw), 1 minor noncompliance (Lake Mountain)	23	5 major noncompliances completed, 4 minor noncompliances completed, 15 OFIs completed
Alpine Resorts Victoria; Mt Buller and Mt Stirling	Complied with the obligations imposed by s 7(1) of the Act during the audit period	0	9	7 OFIs
Alpine Resorts Victoria; Mt Hotham	Did not comply with the obligations imposed by s 7(1) of the Act during the audit period	4 minor noncompliances	12	9 OFIs (includes 4 OFIs that address the minor noncompliances)
Barwon Water	Did not comply with the obligations imposed by s 7(1) of the Act during the audit period	4 minor noncompliances	15	15 OFIs (includes 4 OFIs that address the minor noncompliances)
Central Highlands Water	Did not comply with the obligations imposed by s 7(1) of the Act during the audit period	1 minor noncompliance	5	5 OFIs (includes 1 OFI that address the minor noncompliance)
Coliban Water	Did not comply with the obligations imposed by s 7(1) of the Act during the audit period	2 minor noncompliances	5	5 OFIs (includes 2 OFIs that address the minor noncompliances)
East Gippsland Water	Did not comply with the obligations imposed by s 7(1) of the Act during the audit period	1 minor noncompliance	4	4 OFIs (includes 1 OFI that address the minor noncompliance)
Gippsland Water	Did not comply with the obligations imposed by s 7(1) of the Act during the audit period	2 minor noncompliances	5	5 OFIs (includes 2 OFIs that address the minor noncompliances)
Goulburn-Murray Water	Complied with the obligations imposed by s 8(1) of the Act during the audit period.	0	1	0
Goulburn Valley Water	Complied with the obligations imposed by s 7(1) of the Act during the audit period.	0	0	0
Grampians Wimmera Mallee Water	Complied with the obligations imposed by s 7(1) and s 8(1) of the Act during the audit period.	0	12	12 OFIs
Greater Western Water	Did not comply with the obligations imposed by s 7(1) of the Act during the audit period	4 minor noncompliances.	11	3 minor noncompliances completed and 9 OFIs completed

Water agency	Risk management plan audit outcome	No. of major and/or minor noncompliances	No. of OFIs	No. of completed findings (reported in water agency's 2023- 24 annual report)
Lower Murray Water	Complied with the obligations imposed by s 7(1) of the Act during the audit period.	0	18	4 OFIs
Melbourne Water	Complied with the obligations imposed by s 8(1) of the Act during the audit period.	0	4	2 OFIs
North East Water	Complied with the obligations imposed by s 7(1) of the Act during the audit period.	0	7	5 OFIs
Parks Victoria	Complied with the obligations imposed by s 7(1) of the Act during the audit period.	0	4	3 OFIs
South East Water	Did not comply with the obligations imposed by s 7(1) of the Act during the audit period	1 major and 1 minor noncompliance	8	1 major noncompliance completed and 7 OFIs completed
South Gippsland Water	Complied with the obligations imposed by s 7(1) of the Act during the audit period	0	5	5 OFIs
Southern Rural Water	Complied with the obligations imposed by s 8(1) of the Act during the audit period	0	0	0
Wannon Water	Complied with the obligations imposed by s 7(1) of the Act during the audit period	0	2	2 OFIs
Westernport Water	Complied with the obligations imposed by s 7(1) of the Act during the audit period	0	10	8 OFIs
Yarra Valley Water	Complied with the obligations imposed by s 7(1) of the Act during the audit period	0	3	2 OFIs

Regulated water declarations

Some water agencies supply untreated water directly to communities through a piped distribution system. This water is not intended for human consumption; rather, it is used for watering gardens, flushing toilets and other non-drinking domestic uses. If this water could be mistaken for drinking water, the Minister for Health may, under s 6 of the Act, declare the water to be regulated water.

Regulated water declarations are a means for managing these non-drinking water supplies within the safe drinking water regulatory framework. When a water agency supplies regulated water, it must have a risk management plan for that water supply. Additionally, it must take all reasonable steps to inform the community of the nature of the water and provide information about the health risks associated with drinking the water.

The process for considering whether a particular supply is declared as regulated water involves consultation between the water supplier and the affected community.

Regulated water declarations can also be made if drinking water supplies deteriorate to the point where drinking water quality standards cannot be met. This has occurred when extreme weather events significantly changed the characteristics of source water quality.

The regulated water declaration for the town of Ultima supplied by Grampians Wimmera Mallee Water was revoked during this reporting period. Drinking water is now supplied to Ultima sourced from Lower Murray Water's Swan Hill water treatment plant. Appendix 3 lists regulated water supplies for this reporting period.

Undertakings

Under s 30 of the Act, the Secretary may accept undertakings from water agencies to address water quality issues and deliver permanent water quality improvements. An undertaking can be used when the department or the water agency identifies a contravention under the safe drinking water regulatory framework. The undertaking describes how the water agency will resolve the issue and how it will manage public health risks while addressing the contravention within a specified timeframe. During this reporting period, there were no undertakings in place.

Water agency annual reports

Under s 26 of the Act, all water agencies must provide an annual report on the quality of drinking water and regulated water for every financial year. These reports must be submitted to the Secretary by 31 October, and then made available to the public on the respective water agency website by the next business day.

Emergency preparedness and incident management

Water agencies are responsible to ensure drinking water meets all quality standards. As reported under the Drinking water quality performance section, under s 22 of the Act, the water agency's officer is required to report known or suspected contamination. In instances where drinking water supply is compromised or a water agency is unable to confirm safety, an advisory may be issued by the water agency to its affected customers until the water agency has taken corrective actions and verified that the water is safe to drink.

Advisories issued by water agencies during 2023-24

During 2023-24, six section 22 reports resulted in five drinking water advisories being issued. (Figure 4). These incidents related to extreme weather events such as storms and bushfire, burst water mains increasing the potential for ingress and asset integrity issues. However, many of these incidents were preventable and highlight the need for continuous improvements by water agencies. All water agencies as per the requirements of the risk management plan must detail procedures and protocols in place to monitor and manage risks to the quality of the water as per r.8 (1) c) e) and h) in event of an incident or emergency. Water agencies should also exercise their emergency management arrangements on a regular basis, apply any learnings and inform changes to plans, procedures and protocols in efforts to continuously improve.

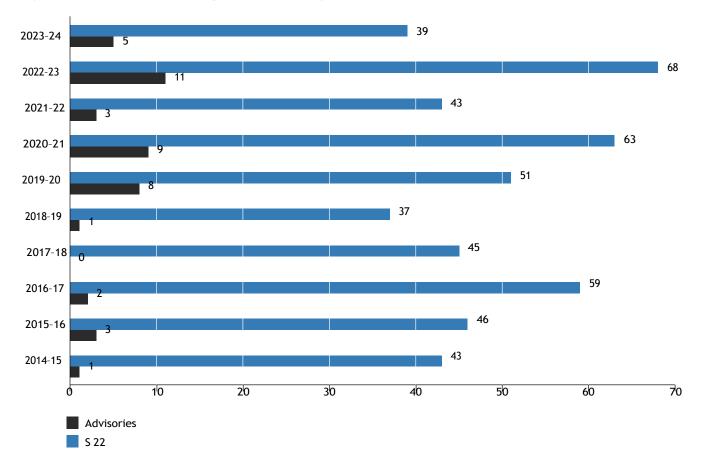


Figure 4: Trend of section 22 reports and drinking water advisories, 2014-15 to 2023-24

The five drinking water advisory incidents below resulted in water agencies issuing 'boil water' and 'do not drink' advisories. For further information for each advisory refer to the respective water agency's Drinking Water Quality Annual Report on their website.

Water Agency	Affected locality	Date of incident and lifting of advisory	Type of advisory	Nature of incident
Coliban Water	Elmore	25 Dec 2023 - 28 Dec 2023	Do not drink	The Elmore plant stopped running with no water being produced, this wasn't picked up or alarmed through to relevant staff. This resulted in zero pressure in the network. The depressurised system and heavy rain may have
				caused untreated water to infiltrate the network. Therefore, a 'do not drink' advisory was issued. The treated water storage was dosed with chlorine, and flushing was initiated to flush the system twice with water that has been disinfected by both UV and chlorine disinfection.
Grampians Wimmera Mallee Water	Pomonal	14 Feb 2024 - 19 Feb 2024	Do not drink	Bushfire passed through Pomonal town on 13 February and had burned 44 houses. During the fire some service leaks occurred, meters and backflow prevention devices damaged. Due to the leaks and emergency services drawing large volumes of water from the reticulation there was risk of low pressure leading to ingress particularly where backflow prevention devices were not installed. It was identified that fire retardant may have been used over the town and as a precautionary measure; a 'do not drink' advisory was issued. It was later established that fire retardant was not used. Grampians Wimmera Mallee Water repaired service leaks, installed new meters and ensured assets were back to normal operation prior to triple flushing and sampling the affected locality.
South Gippsland Water	Poowong, Nyora and Loch	2 Jan 2024 - 12 Jan 2024	Boil water	Detection of <i>E. coli</i> in three routine samples. Two samples were from the Poowong water sampling locality and one from Nyora locality. Rapid risk assessment was not conclusive on cause of detects, due to heavy rain there was potential for ingress at the Poowong clear water storage basin. A boil water advisory was issued while the basin and system were flushed and resampled to verify the corrective actions were effective and that the water was safe to drink.

Table 8 Summary of advisories issued by water agencies in the 2023-24 reporting period

Water Agency	Affected locality	Date of incident and lifting of advisory	Type of advisory	Nature of incident
Yarra Valley Water	Malvern	25 Aug 2023 - 27 Aug 2023	Do not drink	A burst main in Chadstone was reported for repair. A flow of water from an unknown source was found entering the trench. Potentially contaminated water may have entered the main prior to repair, resulting in a 'do not drink' advisory.
Yarra Valley Water	Whittlesea	3 Apr 2024 - 26 Apr 2024	Do not drink	A tank was discovered in poor condition, supplying drinking water to Yan Yean Reservoir Park. The tank indicated potential for contamination via rainwater ingress or animal entry.
				A 'do not drink' advisory was issued, while a permanent alternative water supply for Yan Yean Reservoir Park was implemented.

Appendices

Appendix 1: Section 18 notifications for drinking water quality standards, 2023–24

No	Water agency	Water sampling locality	Water quality standard	Date
1	Alpine Resorts Victoria	Mount Baw Baw	Trichloroacetic acid	Jan-24
2	Alpine Resorts Victoria	Mount Baw Baw	Trichloroacetic acid	May-24
3	Alpine Resorts Victoria	Mount Baw Baw	Trichloroacetic acid	Jun-24
4	Coliban Water	Laanecoorie	Total trihalomethanes	Dec-23
5	Coliban Water	Tarnagulla	Total trihalomethanes	Dec-23
6	Coliban Water	Tarnagulla	Total trihalomethanes	Dec-23
7	Coliban Water	Tarnagulla	Total trihalomethanes	Dec-23
8	Coliban Water	Dunolly	Total trihalomethanes	Dec-23
9	Coliban Water	Tarnagulla	Total trihalomethanes	Jan-24
10	Coliban Water	Bealiba	Total trihalomethanes	Jan-24
11	Coliban Water	Bealiba	Total trihalomethanes	Jan-24
12	Coliban Water	Dunolly	Total trihalomethanes	Jan-24
13	Coliban Water	Tarnagulla	Total trihalomethanes	Jan-24
14	Coliban Water	Tarnagulla	Total trihalomethanes	Jan-24
15	Coliban Water	Tarnagulla	Total trihalomethanes	Jan-24
16	Coliban Water	Tarnagulla	Total trihalomethanes	Jan-24
17	Coliban Water	Bealiba	Total trihalomethanes	Feb-24
18	Coliban Water	Bealiba	Total trihalomethanes	Feb-24
19	Gippsland Water	Neerim South	Manganese	Jul-23
20	Goulburn Valley Water	Katamatite	Total trihalomethanes	Sep-23
21	North East Water	Wodonga Low Level, Wodonga High Level, Wodonga - Baranduda High Level, Ebden - Baranduda Low Level	Total chlorine	Feb-24
22	South Gippsland Water	Nyora	E. coli detection	Jan-24
23	South Gippsland Water	Poowong	E. coli detection	Jan-24
24	South Gippsland Water	Poowong	E. coli detection	Jan-24

Appendix 2: Section 22 reports, 2023–24

No.	Water agency	Water sampling locality	Reason	Date
1	Alpine Resorts Victoria	Mount Hotham	E. coli detection	Sep-23
2	Alpine Resorts Victoria	Mount Buller High Level Reticulation	E. coli detection	Oct-23
3	Barwon Water	Pettavel	Other incident (cross connection with recycled water main)	Oct-23
4	Barwon Water	Pettavel	Other incident (cross connection issue with recycled water)	May-24
5	Coliban Water	Elmore	Disinfection or Treatment failure [#]	Dec-23
6	Coliban Water	Echuca	Widespread public complaint	Feb-24
7	East Gippsland Water	Cann River	E. coli detection	Sep-23
8	Gippsland Water	Neerim South	Widespread public complaint	Jul-23
9	Gippsland Water	Boolarra, Churchill, Cowwarr, Jumbuk, Moe, Morwell, Newborough, Rosedale, Thorpdale, Toongabbie, Trafalgar, Traralgon, Traralgon South/Hazelwood North, Tyers / Glengarry, Willow Grove, Yallourn North, Yarragon and Yinnar	Other incident (car submerged in lake)^	Feb-24
10	Gippsland Water	Mirboo North	Other incident (multiple mains breaks - power outage and draining of water storage)	Feb-24
11	Gippsland Water	Morwell	Widespread public complaint	Feb-24
12	Gippsland Water	Boolarra, Churchill, Cowwarr, Jumbuk, Moe, Morwell, Newborough, Rosedale, Thorpdale, Toongabbie, Trafalgar, Traralgon, Traralgon South/Hazelwood North, Tyers / Glengarry, Willow Grove, Yallourn North, Yarragon and Yinnar	Other incident (car submerged in lake)^	Apr-24

'Do not drink' advisory issued

^ Related section 22 reports for Gippsland Water and Southern Rural Water

Appendix 2: Section 22 reports, 2023–24 (continued)

No.	Water agency	Water sampling locality	Reason	Date
13	Goulburn Valley Water	Tatura	Widespread public complaint	Apr-24
14	Grampians Wimmera Mallee Water	Stawell	E. coli detection	Jul-23
15	Grampians Wimmera Mallee Water	Pomonal	Other incident (bushfires)#	Feb-24
16	Greater Western Water	Altona	Other incident (unusual chlorine residuals with potential cross connection with recycled water)	Dec-23
17	Lower Murray Water	Kerang	Widespread public complaint	Feb-24
18	Lower Murray Water	Mildura	Other incident (unauthorised access at water storage tank)	Mar-24
19	North East Water	Ebden - Baranduda Low Level	E. coli detection	Jul-23
20	North East Water	Wodonga High Level	Other pathogen (animal found in water storage tank)	Aug-23
21	North East Water	Cudgewa	E. coli detection	Jan-24
22	North East Water	Benalla	E. coli detection	Mar-24
23	North East Water	Mount Beauty	Other incident (galvanised reticulation main identified)	Mar-24
24	North East Water	Tangambalanga	Other incident (tank integrity issues)	Apr-24
25	North East Water	Corryong Low Level	E. coli detection	Jun-24
26	South East Water	Bittern	E. coli detection	Dec-23
27	South Gippsland Water	Nyora	E. coli detection ^{*1}	Jan-24
28	South Gippsland Water	Poowong	E. coli detection ^{*1}	Jan-24
29	South Gippsland Water	Wonthaggi	E. coli detection	Jan-24
30	Southern Rural Water	Blue Rock Lake	Other incident (car submerged in lake)^	Feb-24
31	Southern Rural Water	Blue Rock Lake	Other incident (car submerged in lake)^	Apr-24

* 'Boil water' advisory issued

'Do not drink' advisory issued

^ Related section 22 reports for Gippsland Water and Southern Rural Water

¹ Same Boil water advisory for South Gippsland Water

Appendix 2: Section 22 reports, 2023–24 (continued)

No.	Water agency	Water sampling locality	Reason	Date
32	Wannon Water	Peterborough	E. coli detection	Feb-24
33	Wannon Water	Warrnambool	E. coli detection	Apr-24
34	Yarra Valley Water	Malvern	Other incident (system depressurisation - water mains break) [#]	Aug-23
35	Yarra Valley Water	Mitcham	Widespread public complaint	Oct-23
36	Yarra Valley Water	Northcote	Widespread public complaint	Oct-23
37	Yarra Valley Water	Malvern	Widespread public complaint	Dec-23
38	Yarra Valley Water	Carigieburn	Widespread public complaint	Apr-24
39	Yarra Valley Water	Whittlesea	Other incident (tank integrity issues) [#]	Apr-24

[#] 'Do not drink' advisory issued

Appendix 3: Regulated water supplies at 30 June 2024

Water agency	Water supply area		
Alpine Resorts Victoria	Lake Mountain Alpine Resort		
Central Highlands Water	Amphitheatre, Raglan, Redbank		
Coliban Water	Borung, Dingee, Jarklin, Macorna, Mitiamo, Mysia, Wychitella		
Goulburn Valley Water	Corop, Goulburn Weir, Kirwans Bridge, Molesworth, Strathbogie, Woods Point		
Grampians Wimmera Mallee Water	Antwerp, Apsley, Berriwillock, Buangor, Chillingollah, Chinkapook, Cowangie, Culgoa, Dooen, Elmhurst, Glenorchy, Goroke, Harrow, Jung, Kaniva, Kiata, Lalbert, Lascelles, Lillimur, Marnoo, Miram, Moyston, Murrayville, Nandaly, Nullawil, Patchewollock, Pimpinio, Serviceton, Speed, Streatham, Tarranyurk, Tempy, Waitchie, Walpeup, Watchem, Westmere, Wickliffe, Yaapeet Pipelines: Ararat-Lake Fyans pipeline, Mount Cole pipeline, Mount Zero pipeline, Moyston pipeline, Northern Mallee pipeline, St Arnaud pipeline, Stawell supply main, Wickliffe pipeline, Willaura pipeline, Willaura-Lake Bolac pipeline		
Lower Murray Water	Millewa water supply system (Cullulleraine, Meringur, Werrimull), Mystic Park		
Wannon Water	Darlington, North Otway pipeline		



Department of Health