



2024/25



Safe Drinking Water Act

Annual Report

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1 Overview

This report, to the Secretary to the Department of Health (DH), has been prepared to satisfy the annual reporting requirement under Section 26 of the *Safe Drinking Water Act 2003* (the Act), for Coliban Water, as a Water Supplier, to produce an annual water quality report.

We are a major urban water corporation in Victoria. Led by our vision of *healthy water, healthy people* (*dhehk gatjin dhehk balak*), we manage, maintain and operate 34 reservoirs and water storage basins across north central Victoria, and provide water and wastewater services to rural and urban customers across an area of 16,500 square kilometres.

Our service region includes 49 towns, extending from Cohuna and Echuca in the north, to Kyneton and Trentham in the south. The western boundary incorporates Boort, Wedderburn, Bealiba and Dunolly, and the eastern boundary includes Heathcote and Tooborac.

Raw water is sourced from eight individual water supply systems: the Coliban, Campaspe, Wimmera, Loddon, Goulburn and Murray River systems, and two groundwater sources. Coliban Water has 19 water treatment plants which provide drinking water to 42 separate water sampling localities. We also have seven regulated water supply systems. Throughout this document we'll refer to water treatment plants as 'our plant' or 'treatment plants'.



Figure 1: Coliban Water Service Region

We are committed to the provision of safe drinking water as outlined in our Drinking Water Quality Policy Statement, provided below. This is reviewed every three years.

Drinking Water Quality Policy Statement

Below is a copy of the wording from the Drinking Water Quality Policy Statement, signed off by the Coliban Water Board Chair and Managing Director.

We acknowledge and respect Victorian Traditional Owners as the original custodians of Victoria's land and waters, their unique ability to care for Country and deep spiritual connection to it. We honour Elders past and present whose knowledge and wisdom has endured the continuation of culture and traditional practices.

Coliban Water is responsible for providing safe, aesthetically pleasing drinking water which consistently meets the Safe Drinking Water Act 2003 and Safe Drinking Water Regulations (SDWR) 2015. We will work collaboratively with our staff and operational partners to:

- 1. Manage water quality from catchment to tap through a multiple barrier approach using our Drinking Water Quality Risk Management Plan and associated documents.*
- 2. Consult and integrate the needs and expectations of our customers into our planning processes, now and into the future.*
- 3. Undertake regular monitoring and reporting of the quality of drinking water to promote trust and confidence in our water supply and its management.*
- 4. Ensure we have and maintain treatment and distribution assets that are capable of delivering safe drinking water now and into the future having regard for climate change related risks.*
- 5. Undertake appropriate contingency planning and have adequate incident response protocols.*
- 6. Be involved in research and development activities to understand emerging water quality issues and performance.*
- 7. Continually improve our water systems management practices in line with the principles set out in the Australian Drinking Water Guidelines 2011.*
- 8. Ensure that our staff and operational partners have the appropriate training to make decisions that ensure our systems are operated to produce and supply safe drinking water to our customers.*

We will engage all staff and/or partners involved in the supply of drinking water to implement the policy and continually improve the drinking water quality management system.



Bob Cameron
Board Chairperson



Damian Wells
Managing Director

Effective date: 20 December 2024

1.1 Characterisation of the system

We manage and operate various water supply systems. Bendigo, Castlemaine and Kyneton are supplied with water harvested from our three main reservoirs on the Coliban River (Upper Coliban, Lauriston and Malmsbury).

Water is transported to Bendigo and Castlemaine by open channel and stored in the Sandhurst and McCay reservoirs, both of which are off-stream storages managed by Coliban Water. Kyneton is supplied via a pipeline directly from Lauriston Reservoir. Of our 19 water treatment plants, three are owned and operated by Bendigo Water Services Pty Ltd (Veolia Water), and treated water is supplied to us under a 25-year contract. This commenced in 2001, and these three plants service Bendigo, Castlemaine and Kyneton.

Supply to Bendigo is supplemented by water from both Lake Eppalock (a major reservoir on the Campaspe River, managed by Goulburn-Murray Water) and the Waranga Western Channel (Goulburn System, also managed by Goulburn-Murray Water).

Our remaining 16 treatment plants are owned by Coliban Water. These are operated by Service Stream under an operations and maintenance service contract, which started 1 July 2013.

Two of these plants rely on groundwater supplies, and the others receive raw water by diversions from either waterway, irrigation channels or pipelines. These are directly managed by us, or managed by Grampians Wimmera Mallee Water (GWMW) or Goulburn-Murray Water (GMW), as bulk water suppliers to Coliban Water.

For the purposes of the Act, both GWMW and GMW are water storage managers for Coliban Water. These water storage managers work closely with us, communicating raw water data regularly, with direct contact when issues are identified. This enables our plant operators to better prepare for any raw water changes.

Other than the two groundwater supplies, all other raw water supplied to our treatment plants is sourced from open catchments. All identified catchment risks are included in a risk register that forms part of our Drinking Water Quality Risk Management Plan (DWQRMP) and managed as required.

The SDWR requires water suppliers to detail the methodology used to quantify microbial hazards in source waters. Since the introduction of this regulatory requirement, we have applied the Microbial Health-Based Targets manual, developed by Water Services Association of Australia (WSAA). This work required all catchments supplying water for treatment to be assessed, together with analysis of raw water data, to identify the appropriate source water category. Each category has an associated level of potential pathogen risk that our plants need to manage. Processes at each plant are then aligned with the source water category, to identify the level of pathogen risk post treatment.

In September 2022, the National Health and Medical Research Council released an updated version of the Australian Drinking Water Guidelines (ADWG), which included a revision of Chapter 5, specific to assessing microbial risk. These revisions will be applied during the next microbial review for each of our plants.

Information collected from our catchments, source water and plants enable us to identify which plants and treatment processes may require enhancement to manage the potential pathogen risks in the source water. Where a risk has been identified, options to reduce the risk are assessed, which can result in a treatment plant upgrade, or asset modification. All of our plants have critical control points throughout the process, which will alert operators if the plant is operating outside the required range. It will then stop the process when pre-defined critical limits are reached.

We also supply seven townships with water that is classified as regulated water, as detailed in Section 6 of the Act (see part 7 of this report for more details). Regulated water is water that is not intended for drinking, but could be reasonably mistaken as drinking water.

1.2 Source water protection

We work in partnership with the North Central Catchment Management Authority (NCCMA), local government, GMW, GWMW and landcare groups to address issues affecting water quality in our catchments from where drinking water is sourced. This includes the Coliban, Campaspe, Loddon, Wimmera and Murray River catchments.

Our catchments and operational areas are closely managed to ensure we monitor our land for fire and tree hazards, manage our pest plant obligations, whilst also protecting water quality in our storages. We also work to enhance river health and support biodiversity across our lands and catchment.

As part of our fire hazard management, we take a proactive approach to reducing fuel loads. This minimises risk to adjacent landowners, high value assets, and public areas. We also work collaboratively with other agencies through regional forums to prepare for upcoming fire seasons.

We engage with Traditional Owner enterprises such as DJAARA (the Dja Dja Wurrung Clans Aboriginal Corporation) to deliver land and natural resource management outcomes on Country. This includes sensitively managing access to areas around the storages and across sites that contain cultural heritage.

Since the release in February 2015 of our Drinking Water Storages and Land Management Plan, numerous Catchment Works Agreements have been entered into with adjoining landowners. This has been around Malmsbury and Upper Coliban reservoirs to reduce stock access to raw water supplies. Negotiations with landowners about fencing at Lauriston Reservoir are ongoing.

We are responsible for providing statutory and strategic land use planning engagement with municipalities where sewerage is not connected, and we are a determining referral authority under section 55 of the *Planning and Environment Act 1987*. As part of our role in special water supply catchments, declared under the *Catchment and Land Protection Act 1994*, we provided responses to planning permit applications referred to us by local government under clause 66.02-5 – ‘Special Water Supply Catchment’ of the Victorian Planning Provisions and relevant municipal planning schemes.

Our responses provide support to local government by recommending conditions to applications for the use and development of privately-owned land in open water supply catchments, to ensure minimal impact on the quality and quantity of water available to the environment, and for townships that we supply. On occasion, we have objected to the issuing of a planning permit, where we identify potential for adverse impacts.

In September 2017, the Department of Energy, Environment and Climate Action (DEECA), released a Statewide Framework for Catchment Partnership Agreements. The purpose of this is to strengthen coordination, collaboration and accountability, while reducing duplication. It provides clarity on roles and responsibilities between key catchment management partners. We are a partner organisation, under the agreement, along with NCCMA.

This allowed us to participate in the regional Catchment Partnership Forum and provided us representation on the Steering Committee managed by NCCMA for the renewal of the North Central Regional Catchment Strategy (RCS).

In 2024, we put in place a three-year action plan to support the Memorandum of Understanding (MoU) we have with NCCMA. Signed by the executive teams of both organisations, the action plan links the RCS to our strategy, *dheilk gatjin dheilk balak*. These actions began in 2024/25 financial year. The overarching MoU enables the protection and enhancement of our catchment areas and the environment, with a focus on risks to water security from climate change and land-use change. A key action outlined in the action plan was the continued development and implementation of the Upper Coliban Catchment Integrated Catchment Management Plan (ICMP).

The ICMP was developed in response to various threats facing the Upper Coliban catchment in 2015/16. Through active participation by a range of stakeholders, including Djaara, landholders, landcare groups, local and Victorian government agencies, and GMW, the ICMP is a comprehensive analysis of the benefits and costs of protecting and enhancing the catchment. The ICMP is a key step in the delivery of safe drinking water supply and a key principle of ‘Catchment to Tap’ multi-barrier approach for the production of safe drinking water.

The ICMP enables the provision of a safe and secure water supply for communities in central and northern Victoria, along with enhanced river, biodiversity and catchment health outcomes. With a 20-year horizon, the ICMP has been developed around three specific goals with a focus on future development pressures, waterway protection and habitat connectivity.

Delivery and implementation of the ICMP is through a Coliban Water, NCCMA and DJARRA partnership program, now entering its seventh year of operation, called ‘A Healthy Coliban Catchment’ (AHCC). We’re now in the third year of our pricing period (2023 to 2028), which includes funding for this program. It involves a range of on-ground actions (stock exclusion from waterways, riparian regeneration and willow removal), as well as strategic planning through

municipal planning scheme amendments. This includes the development of Environmental Significance Overlay controls, designed to protect and enhance source water supplies.

Agreement has been reached with DEECA Loddon Mallee for us to become the land manager of parcels of Crown Land at Malmsbury Reservoir and Lauriston township, which supports DJANDAK to implement actions and values of the DJAARA Gatjin (water) group. The actions include the development and placement of cultural materials, such as signage and interpretive displays, improved access to the site, particularly for DJAARA Elders so they can participate on Djandak (Country) experiences and cultural practices, and the maintaining of revegetation at the sites, along with weed management.

The table below shows the outputs since the commencement of the AHCC program.

Table 1: Lists the overall outputs for the AHCC program from commencement (2018-19 to 2024-2025 financial years)

Activity	Units	Total outputs
Fence installed	km	51.76
Weed control (total)	Ha	419.13
Weed control established	Ha	225.05
Weed control maintained	Ha	194.08
Revegetation	Ha	188.09
Offstream watering systems	No.	84
Grazing regime change	Ha	128.19
Field Days	No. participants	1279
Workshops	No. participants	315
Training events	No. participants	138
Meetings No	No. participants	302

1.2.1 Raw water monitoring parameters

The following table details the parameters for which monitoring is carried out in all the raw water sources from which water is extracted, treated, and then supplied as drinking water. The program is reviewed every year (or more frequently, depending on seasonal conditions). All monitoring is performed by an independent National Association of Testing Authorities, Australia (NATA) accredited laboratory.

The raw water monitoring is conducted for the purposes of managing risks to the water treatment process. The sampling frequency for each parameter can vary depending on the identified risk for the different raw water, for example, *E. coli* is sampled weekly at some locations and monthly at others. The data from the raw water monitoring program does not represent the quality of drinking water supplied to customers.

Table 2: Raw water monitoring parameters and frequency

Group	Parameter	Sampling frequency ¹
Bacteria	Coliforms	weekly September to April and monthly remainder of year or monthly or quarterly
	<i>E. coli</i>	weekly, September to April and, monthly remainder of year, fortnightly, monthly or quarterly
	Enterococci	weekly, fortnightly or monthly in selected supply systems
Protozoa	<i>Cryptosporidium</i>	weekly, fortnightly or monthly in selected supply systems
	<i>Giardia</i>	
Physical and chemical	pH	weekly September to April and, monthly remainder of year or weekly or monthly or quarterly
	Turbidity	
	Colour	
	Electrical conductivity	
	Suspended Solids	
	Dissolved Oxygen	
	Alkalinity	quarterly
	Hardness	
Inorganic	Aluminium (soluble)	fortnightly or monthly or quarterly
	Arsenic	
	Cadmium	
	Chromium	
	Cyanide	
	Mercury	
	Nitrate	
	Selenium	
	Sodium	
	Sulphate	
	Chloride	
	Antimony	
	Barium	monthly, or quarterly or annually
	Boron	
	Beryllium	
Organic	MIB	weekly or fortnightly September to April and monthly remainder of year or monthly September to April, or weekly, or monthly or fortnightly
	Geosmin	
	TOC (Total Organic Carbon)	monthly or quarterly
Corrosion Products	Iron/ Iron (soluble)	fortnightly or monthly or quarterly
	Manganese/Manganese (soluble)	
	Copper	
	Lead	quarterly
	Zinc	
	Nickel	
Cyanobacteria (Blue Green Algae)	BGA count	weekly – September to April, monthly remainder of the year or fortnightly – September to April, monthly remainder of the year or monthly-September to April
	BGA ID	
	Biovolume	
Green Algae	Green Algae	weekly September to April and monthly remainder of year
Bromide	Bromide	monthly
Fluoride	Fluoride	quarterly
Nutrients	Total phosphorus	weekly September to April and monthly remainder of year, or monthly
	Total nitrogen	
Organic (Fungicides/Herbicides/Insecticides)	Numerous (refer Appendix B)	six monthly or annual

Note:

¹ Water sampling localities are assessed individually and the sampling frequencies for each parameter are allocated depending on the risk.

1.3 Water Supply Systems

A summary of general water supply system information is presented in Table 3.

Table 3: Water Sampling Locality, Population, Source Water, Storage & Water Treatment Plant information for 2024/25

Water sampling locality	Population supplied ¹	Source water	Raw water storage	Water treatment plant
Axedale	430	Upper Coliban Reservoir Lauriston Reservoir Malmsbury Reservoir Lake Eppalock Waranga Western Channel	Sandhurst Reservoir	Bendigo
Bendigo Northern	35960			
Bendigo Southern	40630			
Bendigo Spring Gully	12830			
Bendigo Raywood	200			
Bendigo Sebastian	180			
Big Hill	950			
Epsom - Huntly	11960			
Junortoun	3460			
Maiden Gully - Marong	7590			
Strathfieldsaye	7610			
Boort	840	Waranga Western Channel	Boort Basin	Boort
Bridgewater-Inglewood	1380	South West Loddon Pipeline Loddon River	Bridgewater Basins	Bridgewater
Castlemaine	11760	Upper Coliban Reservoir Lauriston Reservoir Malmsbury Reservoir	McCay Reservoir	Castlemaine
Fryerstown	170			
Guildford	280			
Harcourt	1100			
Maldon	1760			
Newstead	840			
Taradale - Elphinstone	510			
Cohuna	2490	Gunbower Creek	Nil	Cohuna
Echuca	15260	Murray River	Nil	Echuca
Elmore	840	Groundwater Bore No.3 Groundwater Bore No.4	Nil	Elmore
Goornong	440	Campaspe River	Goornong Basin	Goornong
Gunbower	350	Taylors Creek	Nil	Gunbower
Heathcote	2260	Caledonia Reservoir Lake Eppalock Waranga Western Channel Upper Coliban Reservoir Lauriston Reservoir Malmsbury Reservoir	Caledonia Reservoir	Heathcote
Tooborac	110			
Korong Vale	210			
Wedderburn	880			
Kyneton	6780	Lauriston Reservoir	Lauriston Reservoir	Kyneton
Malmsbury	790	Upper Coliban Reservoir		
Tylden	320	Reservoir		

Water sampling locality	Population supplied ¹	Source water	Raw water storage	Water treatment plant
Bealiba	150	South West Loddon Pipeline (SWLP) Loddon River	Laanecoorie Raw Water tanks (SWLP supply only)	Laanecoorie
Dunolly	780			
Laanecoorie	70			
Tarnagulla	190			
Leitchville	390	Gunbower Creek Cohuna Channel	Nil	Leitchville
Lockington	510	Waranga Western Channel	Lockington Basins	Lockington
Pyramid Hill	580	Pyramid Hill Channel	Pyramid Hill Basin	Pyramid Hill
Rochester	2950	Waranga Western Channel Campaspe River	Nil	Rochester
Serpentine	150	East Loddon stock and domestic pipeline	Serpentine Raw Water Tank	Serpentine
Trentham	1610	Groundwater Reservoir 1 and 2	Trentham Reservoir 1 and 2	Trentham
Total Population supplied	178,560			

Note:

- 1 Population is calculated using property connection numbers multiplied by mean household size from the 2021 census.

2 Drinking water treatment processes

2.1 Water treatment

The following table provides a summary of the water treatment processes used to produce drinking water for each water sampling locality¹ and the chemicals that are added during the various water treatment processes. There were no changes to the water sampling localities during 2024/25.

Appendix C contains a more detailed version of the table below.

Table 4: Water treatment processes

Water sampling locality	Treatment plant	Treatment process	Added substances	Comments
Axedale Bendigo Northern Bendigo Southern Bendigo Spring Gully Bendigo Raywood Bendigo Sebastian Big Hill Epsom - Huntly Junortoun Maiden Gully - Marong Strathfieldsaye	Bendigo	Oxidation Coagulation/flocculation Microfiltration Ozonation BAC filtration Fluoridation pH correction Chloramination/Chlorination	Potassium permanganate Carbon dioxide Aluminium chlorohydrate (ACH) Ozone Hydrofluorosilicic acid Lime Chlorine gas Ammonia	Water mains cleaning was undertaken by changing the chlorine disinfection method from chloramination to chlorination. This program commenced in mid-January 2025, and was completed in April 2025.
Boort	Boort	Coagulation/flocculation Clarification Dual-media filtration pH correction Chlorination	Powdered Activated Carbon ² (PAC) Aluminium sulphate Polyelectrolyte Caustic soda Chlorine gas	
Bridgewater- Inglewood	Bridgewater	Coagulation/flocculation Clarification Dual-media filtration GAC filtration UV irradiation pH correction Chlorination/ Chloramination ³	PAC Ultrion Caustic soda Chlorine gas Ammonia	
Castlemaine Fryerstown Guildford Harcourt Maldon Newstead Taradale - Elphinstone	Castlemaine	Coagulation/flocculation Microfiltration Ozonation BAC filtration Fluoridation UV irradiation pH correction Chlorination	Carbon dioxide ACH Ozone Hydrofluorosilicic acid Lime Chlorine gas	UV irradiation system added April 2025.

Water sampling locality	Treatment plant	Treatment process	Added substances	Comments
Cohuna	Cohuna	Coagulation/flocculation Clarification Oxidation Dual-media filtration pH correction Chlorination	PAC Caustic soda Aluminium sulphate Polyelectrolyte Chlorine gas Sodium hypochlorite Sodium Fluoride	
Echuca	Echuca	Coagulation/flocculation Clarification Oxidation Dual-media filtration Fluoridation – off-line UV irradiation pH correction Chlorination	PAC Caustic soda Aluminium sulphate Polyelectrolyte Chlorine gas Sodium hypochlorite	
Elmore	Elmore	pH correction UV irradiation	Caustic soda	
Goorong	Goorong	Coagulation/flocculation Clarification Sand filtration pH correction Chlorination	PAC ² Aluminium sulphate Soda ash Sodium hypochlorite	
Gunbower	Gunbower	Ion Exchange – Off-line Coagulation/flocculation Clarification Microfiltration GAC filtration UV irradiation Chlorination	PAC ² ACH Caustic soda Calcium Hypochlorite	
Heathcote Tooborac	Heathcote	Coagulation/flocculation Clarification Oxidation Dual-media filtration UV irradiation pH correction Chlorination/ Chloramination ³	PAC Caustic soda Aluminium sulphate Sodium hypochlorite Polyelectrolyte Chlorine gas Ammonia	
Korong Vale Wedderburn	Korong Vale	Coagulation/flocculation Clarification Dual-media filtration UV irradiation pH correction Chloramination	PAC ² Caustic soda Aluminium sulphate Polyelectrolyte Chlorine gas Ammonia	

Water sampling locality	Treatment plant	Treatment process	Added substances	Comments
Kyneton Malmsbury Tylden	Kyneton	Coagulation/flocculation Microfiltration Ozonation BAC filtration Fluoridation UV irradiation pH correction Chlorination	Carbon dioxide ACH Ozone Hydrofluorosilicic acid Lime Chlorine gas	UV irradiation system added April 2025.
Bealiba Dunolly Laanecoorie Tarnagulla	Laanecoorie	Coagulation/flocculation Clarification Oxidation -off-line Dual Media filtration UV irradiation pH correction Chlorination/ Chloramination ³	PAC Aluminium sulphate Polyelectrolyte Caustic soda Chlorine gas Ammonia Sodium hypochlorite	Raw water supply changed from Loddon river to South West Loddon pipeline in September 2024.
Leitchville	Leitchville	Coagulation/flocculation Clarification Microfiltration pH correction UV irradiation Chlorination	PAC Aluminium sulphate Polyelectrolyte Caustic soda Chlorine gas	
Lockington	Lockington	Coagulation/flocculation DAFF pH correction Chlorination	PAC ² ACH Polyelectrolyte Caustic soda Calcium Hypochlorite	
Pyramid Hill	Pyramid Hill	Coagulation/flocculation Clarification Dual-media filtration pH correction Chlorination	PAC Aluminium sulphate ACH Polyelectrolyte Caustic soda Chlorine gas	
Rochester	Rochester	Coagulation/flocculation Clarification Microfiltration GAC filtration pH correction Chlorination	PAC ² Aluminium sulphate Polyelectrolyte Chlorine gas Caustic Soda	
Serpentine	Serpentine	Coagulation/flocculation Clarification Dual-media filtration pH correction Chlorination	Aluminium sulphate Polyelectrolyte Caustic soda Chlorine gas	
Trentham	Trentham	Ultrafiltration GAC filtration Chlorination	Calcium Hypochlorite	

Note:

- 1 A water sampling locality is a discrete area of similar water quality.
- 2 There is no permanent PAC dosing system at these treatment plants; however, there is provision for a mobile PAC dosing system to be added into the process when required.
- 3 Primary disinfection occurs through chlorination, and then the treated water is chloraminated, to maintain disinfection residual for a longer period of time.

2.2 Improvements to water supply and treatment

The major water treatment plant improvement works which were carried out in 2024/25 are captured in Table 5.

Table 5: Treatment plant key improvements 2024/25

Water treatment plant	Key improvement works
Boort	Raw water pipeline had access points installed, enabling flushing of the pipeline, which also restored flow to WTP up to 30L/s.
Castlemaine	UV irradiation has been added as a treatment process
Cohuna	Clarifiers and inlet channel refurbished, which enabled all five clarifiers to be available for use, improving treatment performance. Filter backwash pumps replaced
Echuca	New PAC batching and dosing system installed.
Heathcote	Generator installed for power back-up.
Korong Vale	Generator installed for power back-up.
Kyneton	Fluoride system maintenance (new tank & pipework, and recoating of tank bund) UV irradiation has been added as a treatment process
Laanecoorie	2 x raw water tanks built, enabling change of raw water supply to water supplied by Grampians-Wimmera Mallee Water (GWMW).
Lockington	Raw water basin embankment refurbished
Pyramid Hill	ACH dosing system (including tanks and pumps) installed and commissioned.
Rochester	Waranga Channel High Street raw water pumps replaced and commissioned.
Serpentine	Repairs to raw water tank undertaken. Raw water tank bypass line restored, enabling raw water tank to be taken off-line when required.
Trentham	Additional GAC system installed to increase capacity of the WTP. Raw water pumps upgraded. Installed CIP automation for UF membranes

Coliban Water has purchased four mobile PAC trailers. These trailers can be moved to water treatment sites as water quality changes and PAC dosing is required.

Booster pump station was installed at Lockington WTP to improve the town pressure system.

The Specimen Hill (Bendigo system) treated water storage (41.5ML), was taken off-line for a short period to enable the liner to be replaced. While this task is part of standard maintenance, it required careful planning, as this storage would normally supply 50% of Bendigo's network.

We have replaced approximately 10.81 kilometres of water mains over the past 12 months, as part of our ongoing water mains renewal program, at a cost of just over \$2.18 million. These water mains are replaced on a priority basis by analysing a range of criteria including risks to customers, the number of recorded failures, the number of customers impacted and the assessed remaining useful life of the asset. The mains were renewed using directional boring, a trenchless technology that reduces the need for excavations, and results in overall cost savings of 25 to 50 per cent.

In 2024/25, in excess of 350 kilometres of water mains cleaning was completed in Golden Square, Kangaroo Flat, Huntly, North Bendigo and Mitiamo, at a cost of approximately \$233,000. This program removes sediment from water mains, improves chlorine residuals across our networks and has the least interruption to our customers.

Our ongoing water mains cleaning and renewal program helps protect the integrity of the water system, enhances the quality of the drinking water we supply to customers and ensures our water continues to meet the guideline requirements of the Australian Drinking Water Guidelines (ADWG).

The detail in this report is focused on the management of drinking water quality. We compile an Annual Report that encompasses all of our business activities, including financial statements, which contains details on our capital expenditure. This report is available on our website.

2.3 Issues

During 2024/25 the drinking water supplied to our customers was of a high standard, except as described below.

Schedule 2 of Victoria's SDWR lists three specific drinking water quality standards that apply to all drinking water supplies in Victoria: *Escherichia coli* (*E. coli*), Total Trihalomethanes (THM) and Turbidity, all of which have mandated limits, and frequencies for sampling and testing.

During 2024/25, Coliban Water complied with these specific standards.

2.3.1 Event Incidents reported to Department of Health

Extremely hot weather in February 2025 over consecutive days, had increased the treated water flow (max 210 L/second), to levels never reached in the Epsom-Huntly area previously (previous max 140 L/second). These high flows potentially stirred up sediment in the large main supplying these areas, resulting in numerous customer calls relating to dirty water. DH were advised of this event, and a Section 22 report was submitted, refer to Section 3.1 for more details.

In May 2025, a burst on a treated water pipeline resulted in zero pressure in the Guildford area. There was concern that there may have been potential contamination from ingress into the depressurised pipeline, and in response a 'Boil Water Advisory' was implemented. DH was advised of this event, and a Section 22 report was submitted. Refer to Section 3.1 for more details.

2.3.2 Fluoride Notifications

All fluoride systems (Bendigo, Castlemaine, Cohuna & Kyneton) operated inline with the *Code of Practice for fluoridation of drinking water supplies -second edition*.

DH were notified of the Kyneton fluoride system shutdown in October 2024 for maintenance work. The work includes, replacing the fluoride tank and pipework, and the recoating of the tank bund. With the fluoride system being off-line from 7 October – 1 November 2024, DH was advised of the potential impact to the rolling annual average of fluoride concentration during this time.

3 Emergency Incident and Event Management

Sections 3.1 and 4.1 include all Section 22 reports and Section 18 notifications that were made to DH during 2024/25

3.1 Section 22 Reports

The following reports were made to the Water Unit of DH under Section 22 of the Act. Two Section 22 reports were submitted to DH, and both were submitted within the required timeframe.

Table 6: Section 22 Reports 2024/25

Water sampling locality/date	Nature of incident	Actions taken in response to incident
Potential widespread customer complaints relating to dirty water.		
Epsom - Huntly 3 February 2025	- Multiple customer complaints were received for dirty water. - Extremely hot weather over consecutive days had increased the water flow (max 210 L/second), to levels never reached in this area previously (previous max 140 L/second), potentially stirring up sediment in the large main supplying the areas.	Corrective actions: - Flushing was undertaken to remove any sediment from the smaller mains. - The backbone main was cleaned via the "pigging" cleaning method - Water quality sampling was completed. - Communication to the public was via Coliban Water's website, social media, and SMS messaging.
Water sampling locality/date	Nature of incident	Actions taken in response to incident
'Boil Water' Advisory		
Guildford 3 May 2025	- Burst water main on the main supply line to Guildford sampling locality resulted in zero pressure in the network and the potential for contamination to occur via ingress. - This could result in the drinking water being supplied to customers being potentially unsafe to drink. - Information was presented to DH, and it was agreed that a boil water advisory would be put in place.	<u>Corrective actions:</u> - The burst main was fixed. - The network was flushed twice to ensure any potentially contaminated water was removed, and the flushing points were sampled. - Customer tap sampling was carried out twice following the flushing, to ensure the water being supplied was safe to drink. - Following completion of actions, and confirmation the water was safe to drink, the boil water advisory was removed. <u>Customer/Community Communication:</u> - A range of channels were used, including: - media release - social media (Facebook & Twitter) - Coliban Water website - SMS messages - Messaging via Vic Emergency App - Signage was placed at public toilet - Bottled water deployed to Guildford, together with a water trailer for public access. - Coliban Water staff manned the water trailer during the day to assist anyone collecting water.

4 Drinking Water Quality Standards

The SDWR 2015, detail specific water quality standards under Schedule 2. Any exceedance of water quality standards is notifiable to the DH under Section 18 of the Act.

4.1 Section 18 Notifications

Coliban Water did not have any non-compliant water quality results that required Section 18 notifications to the Water Program of DH under Section 18 of the Act during 2024-25.

4.2 Water Quality Sampling Program

The SDWR 2015 require water suppliers to incorporate a water sampling program into their risk management plan. Our water sampling program is reviewed annually. It is separated into three categories – raw water, storage tanks and contact points (i.e. storage tanks that are used to provide contact time for chlorine or chloramine disinfection) and distribution networks (i.e. customer taps).

Raw water sites include catchments, raw water storage reservoirs/basins and irrigation storages. Storage tanks and contact points include storage tanks in both our potable and non-potable (regulated) water supplies. The final verification monitoring is carried out at customer tap sites.

The parameters included in the sampling program include the SDWR 2015 Schedule 2 requirements, together with the parameters that would identify any algal toxins, pathogens, chemical, radiological or other substances that may pose a risk to human health, and the parameters which are included in the program are based on system-specific and catchment-based risk assessments.

During the review process consideration is given to:

- ADWG recommendations.
- The likelihood of a particular hazard being present in the water, and historical data trends; and
- Operational changes.

With regard to raw water quality monitoring, additional consideration was given to seasonal impacts on water quality and data required to assess microbial hazards.

The following changes were made to the water quality sampling programs for 2024/25:

1. Raw Water:
 - We added extra parameters to the Murray River raw water sampling location to accommodate the requirements of the Echuca plant supernatant return water discharge Environmental Improvement Program (EIP) monitoring project.
2. Tanks/contact points:
 - Increased THM monitoring post the Tarnagulla tank (weekly during summer) to monitor for the risk of THM formation.
3. Supernatant:
 - Additional sites added to the program for consistent supernatant discharge monitoring.

4.2.1 Samples within the Water Quality Sampling Program that were not collected.

During 2024-25 the following samples were not collected and analysed as outlined in our water quality sampling program.

Parameter	Water Sampling Locality	Sampling Location	Reason
Dissolved Organic Carbon (DOC)	Leitchville	Exit/storage point	Scheduling error, resulting in missed sample
<i>Escherichia coli</i>	Malmsbury	Customer tap	The sampler identified the chosen sample point had been sampled the previous week (consecutive sample). To avoid this error, they requested another location, which lead to the sample being missed.
Chlorine (Total & Free)	Malmsbury	Customer tap	The sampler identified the chosen sample point had been sampled the previous week (consecutive sample). To avoid this error, they requested another location, which lead to the sample being missed.
Turbidity	Malmsbury	Customer tap	The sampler identified the chosen sample point had been sampled the previous week (consecutive sample). To avoid this error, they requested another location, which lead to the sample being missed.
Fluoride	Malmsbury	Customer tap	The sampler identified the chosen sample point had been sampled the previous week (consecutive sample). To avoid this error, they requested another location, which lead to the sample being missed.
Geosmin	Leitchville	Contact Point	Scheduling error, resulting in missed sample
	Castlemaine	Contact Point	This is a sample collected by a third party sampler, but for this particular sample there is no record of the sample being collected.
MIB	Leitchville	Contact Point	Scheduling error, resulting in missed sample
	Castlemaine	Contact Point	This is a sample collected by a third party sampler, but for this particular sample there is no record of the sample being collected.
Nitrate	Wedderburn	Exit/storage point	Scheduling error, resulting in missed sample
Nitrite	Wedderburn	Exit/storage point	Scheduling error, resulting in missed sample
Ammonia	Wedderburn	Exit/storage point	Scheduling error, resulting in missed sample

4.2.2 Consecutive samples collected within the Water Quality Sampling Program

Parameter	Water Sampling Locality	Sampling Location	Reason
<i>Escherichia coli</i>	Bealiba	Customer Tap	

	Taradale - Elphinstone	Customer Tap	Scheduling error, resulting in consecutive sampling.
	Bendigo - Northern	Customer Tap	
	Bendigo - Southern	Customer Tap	
Chlorine (Total)	Bealiba	Customer Tap	Scheduling error, resulting in consecutive sampling.
	Taradale - Elphinstone	Customer Tap	
	Bendigo - Northern	Customer Tap	
	Bendigo - Southern	Customer Tap	
Turbidity	Bealiba	Customer Tap	Scheduling error, resulting in consecutive sampling.
	Taradale - Elphinstone	Customer Tap	
	Bendigo - Northern	Customer Tap	
	Bendigo - Southern	Customer Tap	

4.3 Water Quality Monitoring results

The following table is a comparison of the analysis for each parameter in the monitoring programs for the period from 2022/23 to 2024/25.

Sections 4.4.1 and 4.4.2 contain the individual data tables for each parameter sampled, as per the monitoring program undertaken during 2024/25.

4.3.1 Analysis of Water Sampling Results

We have carried out substantial water quality monitoring for a number of years. The following table refers to compliance with the parameters in our drinking water sampling programs for 2022/23 to 2024/25.

Table 7: Water Quality Parameter Comparison Results 2022/23 to 2024/25

Parameter	Compliant localities 2022/23	Compliant localities 2023/24	Compliant localities 2024/25
<i>Escherichia coli</i> ¹	90%	100%	100%
Trihalomethanes ¹	95%	90%	100%
Turbidity ¹	100%	100%	100%
Chloroacetic acid ²	100%	100%	100%
Dichloroacetic acid ²	100%	100%	100%
Trichloroacetic acid ²	100%	100%	100%
Bromate ²	100%	100%	100%
Formaldehyde ²	100%	100%	100%
Aluminium ³	100%	100%	100%
Fluoride ²	100%	100%	100%
Arsenic ²	100%	100%	100%
Cadmium ²	100%	100%	100%
Chlorine ²	100%	100%	100%
Chromium ²	100%	100%	100%
Cyanide ²	100%	100%	100%

Parameter	Compliant localities 2022/23	Compliant localities 2023/24	Compliant localities 2024/25
Mercury ²	100%	100%	100%
Nitrate ²	100%	100%	100%
Selenium ²	100%	100%	100%
Sulphate ²	100%	100%	100%
Manganese ²	100%	100%	100%
Copper ²	100%	100%	100%
Lead ²	100%	100%	100%
Nickel ²	100%	100%	100%
Gross alpha ²	100%	100%	100%
Gross beta ²	100%	100%	100%
Nitrite ²	100%	100%	100%
pH ³	74%	71%	71%
Hardness ³	98%	98%	100%
Iron ³	95%	100%	100%
True Colour ³	100%	100%	100%
Electrical Conductivity ³	100%	95%	100%
Sodium ³	100%	100%	100%
Chloride ³	98%	98%	100%
Zinc ³	100%	100%	100%
Ammonia ³	100%	100%	98%
NDMA ²	100%	100%	100%
Total no. water sampling localities	42	42	42

Note:

- 1 This parameter is a water quality standard as listed in Schedule 2 of the SDWR 2015.
- 2 This parameter is a water quality standard with reference to the relevant ADWG health-based guideline value.
- 3 This parameter has an ADWG aesthetic guideline value.

Our compliance against all sampled parameter in 2024/25, other than pH and Ammonia, has improved compared with the previous two years, with the level of non-compliance with pH being consistent with previous years, and ammonia having one elevated sample. Sections 4.3.1.1 contain the details for the non-compliant parameters for 2024/25.

4.3.1.1 Actions undertaken for Aesthetic Parameters that were not met

pH

Twelve water sampling localities did not meet the ADWG aesthetic guideline value range for pH (i.e. pH 6.5 to 8.5). Eight of these localities are supplied with treated water from chloramination treatment systems. An elevated pH (>8.0) is maintained to improve the effectiveness of chloramination.

Additionally, we have systems that have long cement-lined mains in the network, which, with their constant contact with water, have alkalinity drawn out from the cement, and this causes a rise in alkalinity levels and an increase in the pH of the water. We have a routine water mains renewal program to replace the water mains based on a number of criteria, such as age, size, population served, and frequency of failures etc. These cement-lined pipes will be renewed with pipes made of an appropriate material when they meet the criteria for renewal.

Ammonia

The Bealiba water sampling locality has a secondary disinfection treatment unit at the tank located at Bealiba, which includes the dosing of ammonia and chlorine. There was a short-term operational issue, and the system was not

optimised, and this impacted the operation of the ammonia dosing system, causing a result higher than the aesthetic guideline value in the ADWG to be recorded.

4.4 Water Quality Data for Sampling Localities: 1 July 2024 – 30 June 2025

As described in Section 4.2, we carry out a comprehensive water quality monitoring program that includes collecting samples from various points in the water supply system:

- Exit points from plants and water storage tanks into the distribution system.
- Customer tap sites, which are dedicated sampling points that are prior to the customer's water meter.

4.4.1 Treated Water results from plant exit/storage points.

Following are tables that detail the sampling results for each parameter at plant exit/storage points in each of the water sampling localities.

***Escherichia coli* (E. coli) – plant exit/storage points for 2024/25**

E. coli is monitored in all water sampling localities as it is an indicator of the potential presence of faecal contamination in water.

Table 8: *E. coli* results for plant exit/storage points (water quality standard: No *E. coli* per 100mL of drinking water, with the exception of any false positive samples[^])

Water sampling locality	Sampling frequency	Number of samples ¹	Maximum detected (cfu/100m L)	Number of detections and investigations conducted (s.22)	Number of samples where standard was not met
Axedale	weekly	52	0	0	0
Bealiba	weekly	52	0	0	0
Bendigo (Northern)	twice weekly	105	0	0	0
Bendigo (Southern)	twice weekly	210	0	0	0
Bendigo (Spring Gully)	twice weekly	105	0	0	0
Big Hill	weekly	104	0	0	0
Boort	weekly	104	0	0	0
Bridgewater - Inglewood	weekly	104	0	0	0
Castlemaine	twice weekly / weekly	154	0	0	0
Cohuna	weekly	104	0	0	0
Dunolly	weekly	52	0	0	0
Echuca	weekly	106	0	0	0
Elmore	weekly	53	0	0	0
Epsom - Huntly	twice weekly	105	0	0	0
Fryerstown	weekly	53	0	0	0
Goornong	weekly	106	0	0	0
Guildford	twice weekly	105	0	0	0
Gunbower	weekly	104	0	0	0
Harcourt	twice weekly / weekly	158	0	0	0
Heathcote	weekly	52	0	0	0
Junortoun	twice weekly	105	0	0	0
Korong Vale	weekly	104	0	0	0
Kyneton	twice weekly / weekly	157	0	0	0
Laanecoorie	weekly	52	0	0	0
Leitchville	weekly	52	0	0	0
Lockington	weekly	53	0	0	0
Maiden Gully - Marong	twice weekly	157	0	0	0
Maldon	weekly	53	0	0	0

Water sampling locality	Sampling frequency	Number of samples ¹	Maximum detected (cfu/100m L)	Number of detections and investigations conducted (s.22)	Number of samples where standard was not met
Malmsbury	twice weekly / weekly	157	0	0	0
Newstead	weekly	53	0	0	0
Pyramid Hill	weekly	52	0	0	0
Raywood	weekly	52	0	0	0
Rochester	weekly	53	0	0	0
Sebastian	weekly	52	0	0	0
Serpentine	weekly	52	0	0	0
Strathfieldsaye	twice weekly	105	0	0	0
Taradale - Elphinstone	twice weekly	105	0	0	0
Tarnagulla	weekly	52	0	0	0
Tooborac	weekly	52	0	0	0
Trentham	weekly	52	0	0	0
Tylden	weekly	52	0	0	0
Wedderburn	weekly	104	0	0	0

Note:

- 1 The number of samples will vary due to the different number of exit/storage samples points within each water sampling locality.

Trihalomethanes (THM) – plant exit/storage points for 2024/25

THM are formed as a byproduct, predominantly when chlorine is used to disinfect water to make it safe for drinking. They represent one group of chemicals generally referred to as disinfection byproducts.

Table 9: Trihalomethanes results for plant exit/storage points (Water quality standard for THM is 0.25 mg/L)

Water sampling locality	Sampling frequency	Number of Samples ¹	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met
Axedale	monthly	12	0.2100	0.0889	0
Bealiba	monthly	12	0.0890	0.0423	0
Bendigo (Northern)	monthly	12	0.1880	0.0533	0
Bendigo (Southern)	monthly	12	0.1880	0.0533	0
Bendigo (Spring Gully)	monthly	12	0.1880	0.0533	0
Big Hill ²	monthly	36	0.1880	0.0599	0
Boort	monthly	12	0.1400	0.0964	0
Bridgewater - Inglewood	monthly	24	0.0370	0.0193	0
Castlemaine	monthly	24	0.1070	0.0761	0
Cohuna	monthly	12	0.0430	0.0271	0
Dunolly	monthly	12	0.1200	0.0402	0
Echuca	monthly	24	0.0590	0.0247	0
Elmore	monthly	12	<0.001	<0.001	0
Epsom - Huntly	monthly	12	0.1880	0.0533	0
Fryerstown	monthly	12	0.1100	0.0796	0
Goornong	monthly	24	0.1500	0.1045	0
Guildford	monthly	12	0.1070	0.0874	0
Gunbower	monthly	12	0.0570	0.0380	0
Harcourt	monthly	24	0.1200	0.0883	0
Heathcote	monthly	12	0.1300	0.0866	0
Junortoun	monthly	12	0.1880	0.0533	0
Korong Vale	n/a	n/a	n/a	n/a	n/a
Kyneton	monthly	24	0.1010	0.0762	0
Laanecoorie	monthly	12	0.0940	0.0351	0
Leitchville	monthly	12	0.0340	0.0244	0
Lockington	monthly	12	0.0440	0.0228	0
Maiden Gully - Marong	monthly	12	0.1880	0.0533	0
Maldon	monthly	12	0.1200	0.0968	0
Malmsbury	monthly	24	0.1010	0.0794	0
Newstead	monthly	12	0.0840	0.0717	0
Pyramid Hill	monthly	12	0.0300	0.0206	0
Raywood ²	monthly	15	0.2000	0.0818	0
Rochester	monthly	12	0.0480	0.0207	0
Sebastian ²	monthly	15	0.2000	0.0434	0
Serpentine	monthly	12	0.0400	0.0294	0
Strathfieldsaye	monthly	12	0.1880	0.0533	0
Taradale - Elphinstone	n/a	n/a	n/a	n/a	n/a
Tarnagulla	seasonal weekly ³	39	0.0920	0.0308	0
Tooborac	monthly	12	0.1400	0.0843	0
Trentham	monthly	12	0.0550	0.0422	0
Tylden	monthly	12	0.0910	0.0672	0
Wedderburn	n/a	n/a	n/a	n/a	n/a

Note:

n/a – sampling is not required, either because there is no definitive exit point into the water sampling locality from which a sample could be collected, or Coliban Water's risk assessments has indicated that THM sampling is not necessary to manage water quality risks.

1 The number of samples will vary due to the different number of exit/storage samples points within each locality.

- 2 Sampling increased as part of free chlorination project.
- 3 Seasonal Weekly is Weekly September to April, and monthly the other months.

Turbidity – plant exit/storage points for 2024/25

Turbidity is a measure of the particulate matter in water and is monitored in all water sampling localities. High turbidity in the reticulation may indicate poor operation of the water treatment process and/or increased risk of microbiological contamination.

Table 10: Turbidity results for plant exit/storage points (Water quality standard: 95th percentile of results over a 12-month period must be ≤ 5.0 NTU)

Water sampling locality	Sampling frequency	Number of samples ¹	Maximum value (NTU)	95th percentile of results (NTU)	Number of 95th percentile of results above standard
Axedale	monthly	12	0.1	0.1	0
Bealiba	monthly	12	1.5	1.0	0
Bendigo (Northern)	twice weekly	105	0.2	0.1	0
Bendigo (Southern)	twice weekly	210	0.2	0.1	0
Bendigo (Spring Gully)	twice weekly	105	0.2	0.1	0
Big Hill	monthly	24	0.3	0.2	0
Boort	monthly	24	0.2	0.1	0
Bridgewater - Inglewood	monthly	24	0.2	0.2	0
Castlemaine	twice weekly/mthly	116	0.5	0.1	0
Cohuna	monthly	12	0.1	0.1	0
Dunolly	monthly	12	1.7	0.8	0
Echuca	monthly	24	0.3	0.1	0
Elmore	monthly	12	0.1	0.1	0
Epsom - Huntly	twice weekly	105	0.2	0.1	0
Fryerstown	monthly	12	0.2	0.2	0
Goornong	monthly	24	0.2	0.2	0
Guildford	twice weekly	105	0.5	0.1	0
Gunbower	monthly	24	0.1	0.1	0
Harcourt	twice weekly/mthly	117	0.5	0.1	0
Heathcote	monthly	12	0.1	0.1	0
Junortoun	twice weekly	105	0.2	0.1	0
Korong Vale	monthly	24	0.5	0.4	0
Kyneton	twice weekly/mthly	117	0.2	0.1	0
Laanecoorie	monthly	12	0.4	0.2	0
Leitchville	monthly	12	0.1	0.1	0
Lockington	monthly	12	0.1	0.1	0
Maiden Gully - Marong	twice weekly/mthly	117	0.2	0.1	0
Maldon	monthly	12	0.1	0.1	0
Malmsbury	twice weekly/mthly	117	0.2	0.1	0
Newstead	monthly	12	0.1	0.1	0
Pyramid Hill	monthly	12	0.1	0.1	0
Raywood	monthly	12	0.1	0.1	0
Rochester	monthly	12	0.1	0.1	0
Sebastian	monthly	12	0.2	0.1	0
Serpentine	monthly	12	0.4	0.3	0
Strathfieldsaye	twice weekly	105	0.3	0.1	0
Taradale - Elphinstone	twice weekly	105	0.3	0.1	0
Tarnagulla	monthly	12	0.3	0.2	0
Tooborac	monthly	12	0.1	0.1	0
Trentham	monthly	12	0.1	0.1	0
Tylden	monthly	12	0.7	0.5	0
Wedderburn	monthly	24	4.1	0.5	0

Note:

- The number of samples will vary due to the different number of exit/storage samples points within each locality.

Fluoride – WTP exit/storage points for 2024/25

Table 11: Fluoride results for plant exit/storage points (Water quality standard – ADWG health-based guideline value: 1.5 mg/L)

Water sampling locality	Sampling frequency	Number of samples	Target optimum operating fluoride concentration (mg/L)	Max (mg/L)	Min (mg/L)	Ave (mg/L)	Number of samples where standard was not met
Axedale	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Bealiba	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Bendigo (Northern)	twice weekly	103	0.9	0.990	0.800	0.901	0
Bendigo (Southern)	twice weekly	103	0.9	0.990	0.800	0.901	0
Bendigo (Spring Gully)	twice weekly	103	0.9	0.990	0.800	0.901	0
Big Hill	twice weekly	103	0.9	0.990	0.800	0.901	0
Boort	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Bridgewater - Inglewood	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Castlemaine	twice weekly	103	0.9	1.000	0.810	0.906	0
Cohuna	monthly	12	0.8	0.780	0.690	0.730	0
Dunolly	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Echuca ¹	monthly	0	0.8	0	0	0	0
Elmore	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Epsom - Huntly	twice weekly	103	0.9	0.990	0.800	0.901	0
Fryerstown	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Goornong	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Guildford	twice weekly	103	0.9	1.000	0.810	0.906	0
Gunbower	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Harcourt	twice weekly	103	0.9	1.000	0.810	0.906	0
Heathcote	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Junortoun	twice weekly	103	0.9	0.990	0.800	0.901	0
Korong Vale	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Kyneton ²	twice weekly	97	0.9	0.980	0.060	0.862	0
Laanecoorie	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Leitchville	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Lockington	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Maiden Gully - Marong	twice weekly	103	0.9	0.990	0.800	0.901	0
Maldon	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Malmsbury ²	twice weekly	97	0.9	0.980	0.060	0.862	0
Newstead	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Pyramid Hill	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Raywood	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Rochester	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Sebastian	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Serpentine	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Strathfieldsaye	twice weekly	103	0.9	0.990	0.800	0.901	0
Taradale - Elphinstone	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Tarnagulla	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Tooborac	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Trentham	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Tylden	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Wedderburn	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Note:

1 Echuca fluoride system was shut down on 8 September 2023 for major refurbishment.

2 Kyneton fluoride system off-line for maintenance for 4 weeks, no sampling during this time.

n/a – not applicable, as the drinking water is not fluoridated.

Bromate – plant exit/storage points for 2024/25

Table 12: Bromate results for plant exit/storage points (Water quality standard – ADWG health-based guideline value: 0.02 mg/L)

Water sampling locality	Sampling frequency	Number of samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met
Axedale	n/a	n/a	n/a	n/a	n/a
Bealiba	n/a	n/a	n/a	n/a	n/a
Bendigo (Northern)	monthly	12	0.00	0.00	0
Bendigo (Southern)	monthly	12	0.00	0.00	0
Bendigo (Spring Gully)	monthly	12	0.00	0.00	0
Big Hill	monthly	12	0.00	0.00	0
Boort	n/a	n/a	n/a	n/a	n/a
Bridgewater - Inglewood	n/a	n/a	n/a	n/a	n/a
Castlemaine	monthly	12	0.00	0.00	0
Cohuna	n/a	n/a	n/a	n/a	n/a
Dunolly	n/a	n/a	n/a	n/a	n/a
Echuca	n/a	n/a	n/a	n/a	n/a
Elmore	n/a	n/a	n/a	n/a	n/a
Epsom - Huntly	monthly	12	0.00	0.00	0
Fryerstown	n/a	n/a	n/a	n/a	n/a
Goornong	n/a	n/a	n/a	n/a	n/a
Guildford	monthly	12	0.00	0.00	0
Gunbower	n/a	n/a	n/a	n/a	n/a
Harcourt	monthly	12	0.00	0.00	0
Heathcote	n/a	n/a	n/a	n/a	n/a
Junortoun	monthly	12	0.00	0.00	0
Korong Vale	n/a	n/a	n/a	n/a	n/a
Kyneton	monthly	12	0.00	0.00	0
Laanecoorie	n/a	n/a	n/a	n/a	n/a
Leitchville	n/a	n/a	n/a	n/a	n/a
Lockington	n/a	n/a	n/a	n/a	n/a
Maiden Gully - Marong	monthly	12	0.00	0.00	0
Maldon	n/a	n/a	n/a	n/a	n/a
Malmsbury	monthly	12	0.00	0.00	0
Newstead	n/a	n/a	n/a	n/a	n/a
Pyramid Hill	n/a	n/a	n/a	n/a	n/a
Raywood	n/a	n/a	n/a	n/a	n/a
Rochester	n/a	n/a	n/a	n/a	n/a
Sebastian	n/a	n/a	n/a	n/a	n/a
Serpentine	n/a	n/a	n/a	n/a	n/a
Strathfieldsaye	monthly	12	0.00	0.00	0
Taradale - Elphinstone	n/a	n/a	n/a	n/a	n/a
Tarnagulla	n/a	n/a	n/a	n/a	n/a
Tooborac	n/a	n/a	n/a	n/a	n/a
Trentham	n/a	n/a	n/a	n/a	n/a
Tylden	n/a	n/a	n/a	n/a	n/a
Wedderburn	n/a	n/a	n/a	n/a	n/a

Note:

Bromate is monitored in localities where ozone is used in treatment, as ozone can result in the production of this by-products in drinking water.

Ozone is used at the Bendigo, Castlemaine and Kyneton plants.

Ozone-based disinfection byproducts are not deemed to be a significant risk in drinking water we supply that has not been ozonated, therefore it is not monitored.

Formaldehyde – plant exit/storage points for 2024/25

Table 13: Formaldehyde results for plant exit/storage points (Water quality standard – ADWG health-based guideline value: 0.5 mg/L)

Water sampling locality	Sampling frequency	Number of samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met
Axedale	n/a	n/a	n/a	n/a	n/a
Bealiba	n/a	n/a	n/a	n/a	n/a
Bendigo (Northern)	monthly	12	0.0	0.0	0
Bendigo (Southern)	monthly	12	0.0	0.0	0
Bendigo (Spring Gully)	monthly	12	0.0	0.0	0
Big Hill	monthly	12	0.0	0.0	0
Boort	n/a	n/a	n/a	n/a	n/a
Bridgewater - Inglewood	n/a	n/a	n/a	n/a	n/a
Castlemaine	monthly	12	0.0	0.0	0
Cohuna	n/a	n/a	n/a	n/a	n/a
Dunolly	n/a	n/a	n/a	n/a	n/a
Echuca	n/a	n/a	n/a	n/a	n/a
Elmore	n/a	n/a	n/a	n/a	n/a
Epsom - Huntly	monthly	12	0.0	0.0	0
Fryerstown	n/a	n/a	n/a	n/a	n/a
Goornong	n/a	n/a	n/a	n/a	n/a
Guildford	monthly	12	0.0	0.0	0
Gunbower	n/a	n/a	n/a	n/a	n/a
Harcourt	monthly	12	0.0	0.0	0
Heathcote	n/a	n/a	n/a	n/a	n/a
Junortoun	monthly	12	0.0	0.0	0
Korong Vale	n/a	n/a	n/a	n/a	n/a
Kyneton	monthly	12	0.0	0.0	0
Laanecoorie	n/a	n/a	n/a	n/a	n/a
Leitchville	n/a	n/a	n/a	n/a	n/a
Lockington	n/a	n/a	n/a	n/a	n/a
Maiden Gully - Marong	monthly	12	0.0	0.0	0
Maldon	n/a	n/a	n/a	n/a	n/a
Malmsbury	monthly	12	0.0	0.0	0
Newstead	n/a	n/a	n/a	n/a	n/a
Pyramid Hill	n/a	n/a	n/a	n/a	n/a
Raywood	n/a	n/a	n/a	n/a	n/a
Rochester	n/a	n/a	n/a	n/a	n/a
Sebastian	n/a	n/a	n/a	n/a	n/a
Serpentine	n/a	n/a	n/a	n/a	n/a
Strathfieldsaye	monthly	12	0.0	0.0	0
Taradale - Elphinstone	n/a	n/a	n/a	n/a	n/a
Tarnagulla	n/a	n/a	n/a	n/a	n/a
Tooborac	n/a	n/a	n/a	n/a	n/a
Trentham	n/a	n/a	n/a	n/a	n/a
Tylden	n/a	n/a	n/a	n/a	n/a
Wedderburn	n/a	n/a	n/a	n/a	n/a

Note:

Formaldehyde is monitored in localities where ozone is used in treatment, as ozone can result in the production of this by-products in drinking water.

Ozone is used at the Bendigo, Castlemaine and Kyneton plants.

Ozone-based disinfection byproducts are not deemed to be a significant risk in drinking water we supply that has not been ozonated so is not monitored.

Arsenic – plant exit/storage points for 2024/25

Table 14: Arsenic results for plant exit/storage points (Water quality standard – ADWG health-based guideline value: 0.01 mg/L)

Water sampling locality	Sampling frequency	Number of samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met
Axedale	n/a	n/a	n/a	n/a	n/a
Bealiba	n/a	n/a	n/a	n/a	n/a
Bendigo (Northern)	monthly	12	0.0005	0.0005	0
Bendigo (Southern)	monthly	12	0.0005	0.0005	0
Bendigo (Spring Gully)	monthly	12	0.0005	0.0005	0
Big Hill	monthly	12	0.0005	0.0005	0
Boort	n/a	n/a	n/a	n/a	n/a
Bridgewater - Inglewood	n/a	n/a	n/a	n/a	n/a
Castlemaine	monthly	12	0.0005	0.0005	0
Cohuna	n/a	n/a	n/a	n/a	n/a
Dunolly	n/a	n/a	n/a	n/a	n/a
Echuca	n/a	n/a	n/a	n/a	n/a
Elmore	n/a	n/a	n/a	n/a	n/a
Epsom - Huntly	monthly	12	0.0005	0.0005	0
Fryerstown	n/a	n/a	n/a	n/a	n/a
Goornong	n/a	n/a	n/a	n/a	n/a
Guildford	monthly	12	0.0005	0.0005	0
Gunbower	n/a	n/a	n/a	n/a	n/a
Harcourt	monthly	12	0.0005	0.0005	0
Heathcote	n/a	n/a	n/a	n/a	n/a
Junortoun	monthly	12	0.0005	0.0005	0
Korong Vale	n/a	n/a	n/a	n/a	n/a
Kyneton	monthly	12	0.0005	0.0005	0
Laanecoorie	n/a	n/a	n/a	n/a	n/a
Leitchville	n/a	n/a	n/a	n/a	n/a
Lockington	n/a	n/a	n/a	n/a	n/a
Maiden Gully - Marong	monthly	12	0.0005	0.0005	0
Maldon	n/a	n/a	n/a	n/a	n/a
Malmsbury	monthly	12	0.0005	0.0005	0
Newstead	n/a	n/a	n/a	n/a	n/a
Pyramid Hill	n/a	n/a	n/a	n/a	n/a
Raywood	n/a	n/a	n/a	n/a	n/a
Rochester	n/a	n/a	n/a	n/a	n/a
Sebastian	n/a	n/a	n/a	n/a	n/a
Serpentine	n/a	n/a	n/a	n/a	n/a
Strathfieldsaye	monthly	12	0.0005	0.0005	0
Taradale - Elphinstone	n/a	n/a	n/a	n/a	n/a
Tarnagulla	n/a	n/a	n/a	n/a	n/a
Tooborac	n/a	n/a	n/a	n/a	n/a
Trentham	n/a	n/a	n/a	n/a	n/a
Tylden	n/a	n/a	n/a	n/a	n/a
Wedderburn	n/a	n/a	n/a	n/a	n/a

n/a – sampling is not required, either because there is no definitive exit point into the water sampling locality from which a sample could be collected, or Coliban Water's risk assessments has indicated that arsenic sampling is not necessary to manage water quality risks.

Nitrate – plant exit/storage points for 2024/25

Table 15: Nitrate results for plant exit/storage points (Water quality standard – ADWG health-based guideline value: 50 mg/L)

Water sampling locality	Sampling frequency	Number of samples ¹	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met
Axedale	n/a	n/a	n/a	n/a	n/a
Bealiba	n/a	n/a	n/a	n/a	n/a
Bendigo (Northern)	n/a	n/a	n/a	n/a	n/a
Bendigo (Southern)	n/a	n/a	n/a	n/a	n/a
Bendigo (Spring Gully)	n/a	n/a	n/a	n/a	n/a
Big Hill ²	monthly	18	0.6	0.4	0
Boort	n/a	n/a	n/a	n/a	n/a
Bridgewater - Inglewood	monthly	12	0.2	0.1	0
Castlemaine	n/a	n/a	n/a	n/a	n/a
Cohuna	n/a	n/a	n/a	n/a	n/a
Dunolly	weekly	52	0.5	0.2	0
Echuca	n/a	n/a	n/a	n/a	n/a
Elmore	n/a	n/a	n/a	n/a	n/a
Epsom - Huntly	n/a	n/a	n/a	n/a	n/a
Fryerstown	n/a	n/a	n/a	n/a	n/a
Goornong	n/a	n/a	n/a	n/a	n/a
Guildford	n/a	n/a	n/a	n/a	n/a
Gunbower	n/a	n/a	n/a	n/a	n/a
Harcourt	n/a	n/a	n/a	n/a	n/a
Heathcote	n/a	n/a	n/a	n/a	n/a
Junortoun	n/a	n/a	n/a	n/a	n/a
Korong Vale	fortnightly	26	0.2	0.1	0
Kyneton	n/a	n/a	n/a	n/a	n/a
Laanecoorie	n/a	n/a	n/a	n/a	n/a
Leitchville	n/a	n/a	n/a	n/a	n/a
Lockington	n/a	n/a	n/a	n/a	n/a
Maiden Gully – Marong ²	monthly	9	0.4	0.3	0
Maldon	n/a	n/a	n/a	n/a	n/a
Malmsbury	n/a	n/a	n/a	n/a	n/a
Newstead	n/a	n/a	n/a	n/a	n/a
Pyramid Hill	n/a	n/a	n/a	n/a	n/a
Raywood	n/a	n/a	n/a	n/a	n/a
Rochester	n/a	n/a	n/a	n/a	n/a
Sebastian	n/a	n/a	n/a	n/a	n/a
Serpentine	n/a	n/a	n/a	n/a	n/a
Strathfieldsaye	n/a	n/a	n/a	n/a	n/a
Taradale – Elphinstone	n/a	n/a	n/a	n/a	n/a
Tarnagulla	weekly	52	1.7	0.2	0
Tooborac	n/a	n/a	n/a	n/a	n/a
Trentham	n/a	n/a	n/a	n/a	n/a
Tylden	n/a	n/a	n/a	n/a	n/a
Wedderburn ³	fortnightly	51	0.2	0.1	0

Note:

- 1 The number of samples will vary due to the different number of exit/storage samples within each locality.
- 2 Sampling on-hold during free chlorination project.
- 3 Missed sample refer Section 4.2.1

n/a – sampling is not required, either because there is no definitive exit point into the water sampling locality from which a sample could be collected, or Coliban Water's risk assessments has indicated that nitrate sampling is not necessary to manage water quality risks.

Manganese – plant exit/storage points for 2023-24

Table 16: Manganese results for plant exit/storage points (Water quality standard – ADWG health-based guideline value: 0.5 mg/L)

Water sampling locality	Sampling frequency	Number of samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met
Axedale	n/a	n/a	n/a	n/a	n/a
Bealiba	n/a	n/a	n/a	n/a	n/a
Bendigo (Northern)	monthly	12	0.003	0.002	0
Bendigo (Southern)	monthly	12	0.003	0.002	0
Bendigo (Spring Gully)	monthly	12	0.003	0.002	0
Big Hill	monthly	12	0.003	0.002	0
Boort	weekly	52	0.004	0.001	0
Bridgewater - Inglewood	monthly	12	0.004	0.002	0
Castlemaine	monthly	12	0.007	0.001	0
Cohuna	weekly	52	0.015	0.003	0
Dunolly	n/a	n/a	n/a	n/a	n/a
Echuca	weekly	53	0.003	0.001	0
Elmore	monthly	12	<0.001	<0.001	0
Epsom - Huntly	monthly	12	0.003	0.002	0
Fryerstown	n/a	n/a	n/a	n/a	n/a
Goornong	monthly	12	0.008	0.001	0
Guildford	monthly	12	0.007	0.001	0
Gunbower	weekly	52	0.001	0.001	0
Harcourt	monthly	12	0.007	0.001	0
Heathcote	weekly	52	0.017	0.002	0
Junortoun	monthly	12	0.003	0.002	0
Korong Vale	monthly	12	0.001	0.001	0
Kyneton	monthly	12	0.005	0.002	0
Laanecoorie	weekly	52	0.044	0.005	0
Leitchville	weekly	52	0.017	0.002	0
Lockington	monthly	12	<0.001	<0.001	0
Maiden Gully - Marong	monthly	12	0.003	0.002	0
Maldon	n/a	n/a	n/a	n/a	n/a
Malmsbury	monthly	12	0.005	0.002	0
Newstead	n/a	n/a	n/a	n/a	n/a
Pyramid Hill	monthly	12	0.004	0.001	0
Raywood	n/a	n/a	n/a	n/a	n/a
Rochester ¹	weekly	53	0.013	0.001	0
Sebastian	n/a	n/a	n/a	n/a	n/a
Serpentine	monthly	12	0.052	0.008	0
Strathfieldsaye	monthly	12	0.003	0.002	0
Taradale - Elphinstone	n/a	n/a	n/a	n/a	n/a
Tarnagulla	n/a	n/a	n/a	n/a	n/a
Tooborac	n/a	n/a	n/a	n/a	n/a
Trentham	monthly	12	<0.001	<0.001	0
Tylden	n/a	n/a	n/a	n/a	n/a
Wedderburn	n/a	n/a	n/a	n/a	n/a

Note:

n/a – sampling is not required, either because there is no definitive exit point into the water sampling locality from which a sample could be collected, or Coliban Water's risk assessments has indicated that manganese sampling is not necessary to manage water quality risks.

Nitrite – plant exit/storage points for 2024/25

Table 17: Nitrite Results for plant exit/storage points (Water quality standard – ADWG health-based guideline value: 3.0 mg/L)

Water sampling locality	Sampling frequency	Number of samples ¹	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met
Axedale	n/a	n/a	n/a	n/a	n/a
Bealiba	n/a	n/a	n/a	n/a	n/a
Bendigo (Northern)	n/a	n/a	n/a	n/a	n/a
Bendigo (Southern)	n/a	n/a	n/a	n/a	n/a
Bendigo (Spring Gully)	n/a	n/a	n/a	n/a	n/a
Big Hill ²	monthly	18	0.19	0.05	0
Boort	n/a	n/a	n/a	n/a	n/a
Bridgewater - Inglewood	monthly	12	0.01	0.01	0
Castlemaine	n/a	n/a	n/a	n/a	n/a
Cohuna	n/a	n/a	n/a	n/a	n/a
Dunolly	weekly	52	0.10	0.02	0
Echuca	n/a	n/a	n/a	n/a	n/a
Elmore	n/a	n/a	n/a	n/a	n/a
Epsom - Huntly	n/a	n/a	n/a	n/a	n/a
Fryerstown	n/a	n/a	n/a	n/a	n/a
Goornong	n/a	n/a	n/a	n/a	n/a
Guildford	n/a	n/a	n/a	n/a	n/a
Gunbower	n/a	n/a	n/a	n/a	n/a
Harcourt	n/a	n/a	n/a	n/a	n/a
Heathcote	n/a	n/a	n/a	n/a	n/a
Junortoun	n/a	n/a	n/a	n/a	n/a
Korong Vale	fortnightly	26	0.03	0.01	0
Kyneton	n/a	n/a	n/a	n/a	n/a
Laanecoorie	n/a	n/a	n/a	n/a	n/a
Leitchville	n/a	n/a	n/a	n/a	n/a
Lockington	n/a	n/a	n/a	n/a	n/a
Maiden Gully – Marong ²	monthly	9	0.34	0.09	n/a
Maldon	n/a	n/a	n/a	n/a	n/a
Malmsbury	n/a	n/a	n/a	n/a	n/a
Newstead	n/a	n/a	n/a	n/a	n/a
Pyramid Hill	n/a	n/a	n/a	n/a	n/a
Raywood	n/a	n/a	n/a	n/a	n/a
Rochester	n/a	n/a	n/a	n/a	n/a
Sebastian	n/a	n/a	n/a	n/a	n/a
Serpentine	n/a	n/a	n/a	n/a	n/a
Strathfieldsaye	n/a	n/a	n/a	n/a	n/a
Taradale – Elphinstone	n/a	n/a	n/a	n/a	n/a
Tarnagulla	weekly	52	0.08	0.01	0
Tooborac	n/a	n/a	n/a	n/a	n/a
Trentham	n/a	n/a	n/a	n/a	n/a
Tylden	n/a	n/a	n/a	n/a	n/a
Wedderburn ³	fortnightly	51	0.04	0.01	0

Note:

- 1 The number of samples will vary due to the different number of exit/storage samples within each locality.
- 2 Sampling on-hold during free chlorination project.
- 3 Missed sample refer Section 4.2.1

n/a – sampling is not required, either because there is no definitive exit point into the water sampling locality from which a sample could be collected, or Coliban Water's risk assessments has indicated that nitrite sampling is not necessary to manage water quality risks.

Aluminium – plant exit/storage points for 2024-25

Table 18: Aluminium results (Total & Soluble) for plant exit/storage points (ADWG aesthetic guideline value: 0.2 mg/L)

Water sampling locality	Sampling frequency	Number of samples	Maximum (mg/L)	Average (mg/L)	Number of samples where guideline was not met
Axedale	n/a	n/a	n/a	n/a	n/a
Bealiba	n/a	n/a	n/a	n/a	n/a
Bendigo (Northern) ¹	weekly	53	0.03	0.02	0
Bendigo (Southern) ¹	weekly	53	0.03	0.02	0
Bendigo (Spring Gully) ¹	weekly	53	0.03	0.02	0
Big Hill ¹	weekly	53	0.03	0.02	0
Boort ²	quarterly	4	0.03	0.02	0
Bridgewater – Inglewood ²	quarterly	4	0.05	0.03	0
Castlemaine ¹	weekly	53	0.02	0.01	0
Cohuna ²	quarterly	4	0.02	0.02	0
Dunolly	n/a	n/a	n/a	n/a	n/a
Echuca ²	monthly	12	0.11	0.04	0
Elmore	n/a	n/a	n/a	n/a	n/a
Epsom – Huntly ¹	weekly	53	0.03	0.02	0
Fryerstown	n/a	n/a	n/a	n/a	n/a
Goornong ²	monthly	12	0.150	0.064	0
Guildford ¹	weekly	53	0.030	0.019	0
Gunbower ²	quarterly	4	0.090	0.053	0
Harcourt ¹	weekly	53	0.030	0.019	0
Heathcote ²	quarterly	4	0.020	0.018	0
Junortoun ¹	weekly	53	0.050	0.025	0
Korong Vale ²	quarterly	4	0.020	0.015	0
Kyneton ¹	weekly	53	0.030	0.023	0
Laanecoorie ²	quarterly	4	0.030	0.025	0
Leitchville ²	quarterly	4	0.020	0.011	0
Lockington ²	quarterly	4	0.100	0.070	0
Maiden Gully – Marong ¹	weekly	53	0.050	0.025	0
Maldon	n/a	n/a	n/a	n/a	n/a
Malmsbury ¹	weekly	53	0.02	0.02	0
Newstead	n/a	n/a	n/a	n/a	n/a
Pyramid Hill ²	quarterly	4	0.05	0.03	0
Raywood	n/a	n/a	n/a	n/a	n/a
Rochester ²	quarterly	4	<0.01	<0.01	0
Sebastian	n/a	n/a	n/a	n/a	n/a
Serpentine ²	quarterly	4	0.02	0.01	0
Strathfieldsaye ¹	weekly	53	0.03	0.02	0
Taradale – Elphinstone	n/a	n/a	n/a	n/a	n/a
Tarnagulla	n/a	n/a	n/a	n/a	n/a
Tooborac	n/a	n/a	n/a	n/a	n/a
Trentham	n/a	n/a	n/a	n/a	n/a
Tylden	n/a	n/a	n/a	n/a	n/a
Wedderburn	n/a	n/a	n/a	n/a	n/a

Note:

- 1 Total aluminium.
- 2 Soluble aluminium

n/a – sampling is not required, either because there is no definitive exit point into the water sampling locality from which a sample could be collected, or Coliban Water's risk assessments has indicated that aluminium sampling is not necessary to manage water quality risks.

Iron – plant exit/storage points for 2024/25

Table 19: Iron results for plant exit/storage points (ADWG aesthetic guideline value: 0.3mg/L)

Water sampling locality	Sampling frequency	Number of samples	Maximum (mg/L)	Average (mg/L)	Number of samples where guideline was not met
Axedale	n/a	n/a	n/a	n/a	n/a
Bealiba	n/a	n/a	n/a	n/a	n/a
Bendigo (Northern)	monthly	12	0.01	0.01	0
Bendigo (Southern)	monthly	12	0.01	0.01	0
Bendigo (Spring Gully)	monthly	12	0.01	0.01	0
Big Hill	monthly	12	0.01	0.01	0
Boort	weekly	52	0.03	0.02	0
Bridgewater - Inglewood	monthly	12	0.01	0.01	0
Castlemaine	monthly	12	0.01	0.01	0
Cohuna	weekly	52	<0.01	<0.01	0
Dunolly	n/a	n/a	n/a	n/a	n/a
Echuca	weekly	53	<0.01	<0.01	0
Elmore	monthly	12	<0.01	<0.01	0
Epsom - Huntly	monthly	12	0.01	0.01	0
Fryerstown	n/a	n/a	n/a	n/a	n/a
Goornong	monthly	12	<0.01	<0.01	0
Guildford	monthly	12	0.01	0.01	0
Gunbower	weekly	52	<0.01	<0.01	0
Harcourt	monthly	12	0.01	0.01	0
Heathcote	weekly	52	<0.01	<0.01	0
Junortoun	monthly	12	0.01	0.01	0
Korong Vale	monthly	12	0.02	0.01	0
Kyneton	monthly	12	0.01	0.01	0
Laanecoorie	weekly	52	0.03	0.01	0
Leitchville	weekly	52	<0.01	<0.01	0
Lockington	monthly	12	<0.01	<0.01	0
Maiden Gully - Marong	monthly	12	0.01	0.01	0
Maldon	n/a	n/a	n/a	n/a	n/a
Malmsbury	monthly	12	0.01	0.01	0
Newstead	n/a	n/a	n/a	n/a	n/a
Pyramid Hill	monthly	12	<0.01	<0.01	0
Raywood	n/a	n/a	n/a	n/a	n/a
Rochester ¹	weekly	53	<0.01	<0.01	0
Sebastian	n/a	n/a	n/a	n/a	n/a
Serpentine	monthly	12	0.24	0.03	0
Strathfieldsaye	monthly	12	0.01	0.01	0
Taradale - Elphinstone	n/a	n/a	n/a	n/a	n/a
Tarnagulla	n/a	n/a	n/a	n/a	n/a
Tooborac	n/a	n/a	n/a	n/a	n/a
Trentham	monthly	12	<0.01	<0.01	0
Tylden	n/a	n/a	n/a	n/a	n/a
Wedderburn	n/a	n/a	n/a	n/a	n/a

Note:

n/a – sampling is not required, either because there is no definitive exit point into the water sampling locality from which a sample could be collected, or Coliban Water's risk assessments has indicated that iron sampling is not necessary to manage water quality risks.

Chlorine – plant exit/storage points for 2024/25

Table 20: Chlorine results for plant exit/storage points (ADWG health-based guideline value: 5.0mg/L)

Water sampling locality	Sampling frequency	Number of samples ¹	Maximum (mg/L)	Average (mg/L)	Number of samples where guideline was not met
Axedale	weekly	52	2.6	1.6	0
Bealiba	weekly	52	4.0	1.8	0
Bendigo (Northern)	n/a	n/a	n/a	n/a	n/a
Bendigo (Southern)	n/a	n/a	n/a	n/a	n/a
Bendigo (Spring Gully)	n/a	n/a	n/a	n/a	n/a
Big Hill	weekly	104	1.9	0.8	0
Boort	weekly	104	2.9	1.8	0
Bridgewater - Inglewood	weekly	54	3.4	1.7	0
Castlemaine ²	weekly	49	1.9	1.4	0
Cohuna	weekly	104	2.4	2.0	0
Dunolly	weekly	52	2.6	1.8	0
Echuca	weekly	159	2.5	1.6	0
Elmore	n/a	n/a	n/a	n/a	n/a
Epsom - Huntly	n/a	n/a	n/a	n/a	n/a
Fryerstown	weekly	53	2.2	1.3	0
Goornong	weekly	106	2.7	1.1	0
Guildford	n/a	n/a	n/a	n/a	n/a
Gunbower	weekly	104	2.3	1.7	0
Harcourt	weekly	53	3.2	1.6	0
Heathcote	weekly	52	2.9	2.1	0
Junortoun	n/a	n/a	n/a	n/a	n/a
Korong Vale	weekly	104	2.4	1.9	0
Kyneton	weekly	52	2.2	1.7	0
Laanecoorie	weekly	52	3.4	2.3	0
Leitchville	weekly	52	2.5	1.9	0
Lockington	weekly	53	3.9	2.2	0
Maiden Gully - Marong	weekly	52	1.7	1.0	0
Maldon	weekly	53	1.7	1.3	0
Malmsbury	weekly	52	2.0	1.4	0
Newstead	weekly	53	1.8	1.4	0
Pyramid Hill	weekly	52	2.9	2.0	0
Raywood	weekly	52	2.6	1.3	0
Rochester	weekly	53	2.1	1.7	0
Sebastian	weekly	52	3.2	1.7	0
Serpentine	weekly	52	2.9	2.2	0
Strathfieldsaye	n/a	n/a	n/a	n/a	n/a
Taradale - Elphinstone	n/a	n/a	n/a	n/a	n/a
Tarnagulla	weekly	52	2.7	1.8	0
Tooborac	weekly	52	2.7	1.2	0
Trentham	weekly	52	2.8	1.8	0
Tylden	weekly	52	2.2	1.5	0
Wedderburn	weekly	52	2.2	1.6	0

Note:

- 1 The number of samples will vary due to the different number of exit/storage samples within each locality.
- 2 Kalimna Basin part of Castlemaine system was off-line for maintenance from 9 June 2025.

n/a – sampling is not required as there is no definitive exit point into the water sampling locality from which a sample is collected.

Ammonia – plant exit/storage points for 2024-25

Table 21: Ammonia results for plant exit/storage points (ADWG aesthetic guideline value is 0.5 mg/L)

Water sampling locality	Sampling frequency	Number of samples ¹	Maximum (mg/L)	Average (mg/L)	Number of samples where guideline was not met
Axedale	n/a	n/a	n/a	n/a	n/a
Bealiba ⁴	fortnightly	26	0.520	0.140	1
Bendigo (Northern)	weekly	55	0.430	0.121	0
Bendigo (Southern)	weekly	55	0.430	0.121	0
Bendigo (Spring Gully)	weekly	55	0.430	0.121	0
Big Hill ²	monthly	18	0.250	0.110	0
Boort	n/a	n/a	n/a	n/a	n/a
Bridgewater - Inglewood	fortnightly/monthly	38	0.340	0.127	0
Castlemaine	n/a	n/a	n/a	n/a	n/a
Cohuna	n/a	n/a	n/a	n/a	n/a
Dunolly	weekly	52	0.390	0.134	0
Echuca	n/a	n/a	n/a	n/a	n/a
Elmore	n/a	n/a	n/a	n/a	n/a
Epsom - Huntly	weekly	55	0.430	0.121	0
Fryerstown	n/a	n/a	n/a	n/a	n/a
Goornong	n/a	n/a	n/a	n/a	n/a
Guildford	n/a	n/a	n/a	n/a	n/a
Gunbower	n/a	n/a	n/a	n/a	n/a
Harcourt	n/a	n/a	n/a	n/a	n/a
Heathcote	fortnightly	26	0.250	0.142	0
Junortoun	weekly	55	0.430	0.121	0
Korong Vale	weekly	52	0.160	0.100	0
Kyneton	n/a	n/a	n/a	n/a	n/a
Laanecoorie	fortnightly	26	0.410	0.113	0
Leitchville	n/a	n/a	n/a	n/a	n/a
Lockington	n/a	n/a	n/a	n/a	n/a
Maiden Gully - Marong	weekly/monthly	64	0.430	0.129	0
Maldon	n/a	n/a	n/a	n/a	n/a
Malmsbury	n/a	n/a	n/a	n/a	n/a
Newstead	n/a	n/a	n/a	n/a	n/a
Pyramid Hill	n/a	n/a	n/a	n/a	n/a
Raywood	n/a	n/a	n/a	n/a	n/a
Rochester	n/a	n/a	n/a	n/a	n/a
Sebastian	n/a	n/a	n/a	n/a	n/a
Serpentine	n/a	n/a	n/a	n/a	n/a
Strathfieldsaye	weekly	55	0.430	0.121	0
Taradale - Elphinstone	n/a	n/a	n/a	n/a	n/a
Tarnagulla	weekly	52	0.400	0.142	0
Tooborac	n/a	n/a	n/a	n/a	n/a
Trentham	n/a	n/a	n/a	n/a	n/a
Tylden	n/a	n/a	n/a	n/a	n/a
Wedderburn ³	fortnightly	25	0.320	0.106	0

Note:

- 1 The number of samples will vary due to the different number of exit/storage samples within each locality.
- 2 Sampling on-hold during free chlorination project.
- 3 Missed sample refer Section 4.2.1
- 4 Refer Section 4.3.1.1 for details.

n/a – sampling is not required, either because there is no definitive exit point into the water sampling locality from which a sample could be collected, or Coliban Water's risk assessments has indicated that ammonia sampling is not necessary to manage water quality risks.

Alkalinity – plant exit/storage points for 2024-25

Table 22: Alkalinity results for plant exit/storage points – whilst there is no ADWG guideline limit for alkalinity, it is monitored for operational purposes.

Water Sampling Locality	Sampling frequency	Number of Samples	Maximum (mg/L)	Average (mg/L)
Axedale	n/a	n/a	n/a	n/a
Bealiba	n/a	n/a	n/a	n/a
Bendigo (Northern)	weekly	53	88	65
Bendigo (Southern)	weekly	53	88	65
Bendigo (Spring Gully)	weekly	53	88	65
Big Hill	weekly	53	88	65
Boort	n/a	n/a	n/a	n/a
Bridgewater - Inglewood	n/a	n/a	n/a	n/a
Castlemaine	weekly	53	55	50
Cohuna	n/a	n/a	n/a	n/a
Dunolly	n/a	n/a	n/a	n/a
Echuca	n/a	n/a	n/a	n/a
Elmore	n/a	n/a	n/a	n/a
Epsom - Huntly	weekly	53	88	65
Fryerstown	n/a	n/a	n/a	n/a
Goornong	n/a	n/a	n/a	n/a
Guildford	weekly	53	55	50
Gunbower	n/a	n/a	n/a	n/a
Harcourt	weekly	53	55	50
Heathcote	n/a	n/a	n/a	n/a
Junortoun	weekly	53	88	65
Korong Vale	n/a	n/a	n/a	n/a
Kyneton	weekly	53	58	55
Laanecoorie	n/a	n/a	n/a	n/a
Leitchville	n/a	n/a	n/a	n/a
Lockington	n/a	n/a	n/a	n/a
Maiden Gully - Marong	weekly	53	88	65
Maldon	n/a	n/a	n/a	n/a
Malmsbury	weekly	53	58	55
Newstead	n/a	n/a	n/a	n/a
Pyramid Hill	n/a	n/a	n/a	n/a
Raywood	n/a	n/a	n/a	n/a
Rochester	n/a	n/a	n/a	n/a
Sebastian	n/a	n/a	n/a	n/a
Serpentine	n/a	n/a	n/a	n/a
Strathfieldsaye	weekly	53	88	65
Taradale - Elphinstone	n/a	n/a	n/a	n/a
Tarnagulla	n/a	n/a	n/a	n/a
Tooborac	n/a	n/a	n/a	n/a
Trentham	n/a	n/a	n/a	n/a
Tylden	n/a	n/a	n/a	n/a
Wedderburn	n/a	n/a	n/a	n/a

n/a – sampling is not required, either because there is no definitive exit point into the water sampling locality from which a sample could be collected, or Coliban Water's risk assessments has indicated that alkalinity sampling is not necessary to manage water quality risks.

4.4.2 Treated Water results from customer tap sample points

Following are tables of sampling results for each parameter at customer tap sample points in each of the sampling localities.

***Escherichia coli* (E. coli) – Customer tap sites 2024-25**

E. coli is monitored in all water sampling localities as it is an indicator of the potential presence of faecal contamination in water.

Table 23: *E. coli* results for customer tap sites (Schedule 2 Drinking water quality standards: No *E. coli* per 100mL of drinking water, with the exception of any false positive sample[^]).

Water sampling locality	Sampling frequency	Number of samples	Maximum detected (orgs/100mL)	Number of detections and investigations conducted (s.22)	Number of samples where standard was not met
Axedale	Weekly	52	0	0	0
Bealiba	Weekly	52	0	0	0
Bendigo (Northern)	Weekly	136	0	0	0
Bendigo (Southern)	Weekly	148	0	0	0
Bendigo (Spring Gully)	Weekly	76	0	0	0
Big Hill	Weekly	52	0	0	0
Boort	Weekly	52	0	0	0
Bridgewater - Inglewood	Weekly	52	0	0	0
Castlemaine	Weekly	76	0	0	0
Cohuna	Weekly	52	0	0	0
Dunolly	Weekly	52	0	0	0
Echuca	Weekly	88	0	0	0
Elmore	Weekly	53	0	0	0
Epsom - Huntly	Weekly	76	0	0	0
Fryerstown	Weekly	53	0	0	0
Goornong	Weekly	53	0	0	0
Guildford	Weekly	53	0	0	0
Gunbower	Weekly	52	0	0	0
Harcourt	Weekly	53	0	0	0
Heathcote	Weekly	52	0	0	0
Junortoun	Weekly	52	0	0	0
Korong Vale	Weekly	52	0	0	0
Kyneton	Weekly	64	0	0	0
Laanecoorie	Weekly	52	0	0	0
Leitchville	Weekly	52	0	0	0
Lockington	Weekly	53	0	0	0
Maiden Gully - Marong	Weekly	64	0	0	0
Maldon	Weekly	53	0	0	0
Malmsbury ¹	Weekly	51	0	0	0
Newstead	Weekly	53	0	0	0
Pyramid Hill	Weekly	52	0	0	0
Raywood	Weekly	52	0	0	0
Rochester	Weekly	53	0	0	0
Sebastian	Weekly	52	0	0	0
Serpentine	Weekly	52	0	0	0
Strathfieldsaye	Weekly	64	0	0	0
Taradale - Elphinstone	Weekly	52	0	0	0
Tarnagulla	Weekly	52	0	0	0
Tooborac	Weekly	52	0	0	0
Trentham	Weekly	52	0	0	0
Tylden	Weekly	52	0	0	0
Wedderburn	Weekly	52	0	0	0

Note:

1 Missed sample refer Section 4.2.1 for detail.

Localities with populations greater than 5,000 have additional sampling to the one sample per week (one additional sample per month for each 5,000 above 5,000 population in accordance with the Australian Drinking Water Guidelines (2011).

^ no false positive E. coli results were recorded during 2024/25.

Trihalomethanes (THM) – Customer tap sites 2024-25

THM are formed as a byproduct, predominantly when chlorine is used to disinfect water for drinking. They represent one group of chemicals generally referred to as disinfection by-products.

Table 24: THM results for customer tap sites (Schedule 2 – Drinking water quality standards – Less than or equal to 0.25 mg/L of drinking water.)

Water sampling locality	Sampling frequency	Number of samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met
Axedale	monthly	12	0.2200	0.1011	0
Bealiba	monthly	12	0.0890	0.0433	0
Bendigo (Northern) ¹	monthly/wkly	22	0.2200	0.1038	0
Bendigo (Southern) ¹	monthly/wkly	22	0.1700	0.0764	0
Bendigo (Spring Gully) ¹	monthly/wkly	22	0.2000	0.0946	0
Big Hill ¹	monthly/wkly	22	0.1900	0.0994	0
Boort	monthly	12	0.1800	0.1220	0
Bridgewater - Inglewood	monthly	12	0.0420	0.0244	0
Castlemaine	monthly	12	0.0870	0.0636	0
Cohuna	monthly	12	0.0570	0.0316	0
Dunolly	monthly	12	0.0940	0.0355	0
Echuca	monthly	12	0.0620	0.0298	0
Elmore	monthly	12	<0.001	<0.001	0
Epsom - Huntly ¹	monthly/wkly	23	0.2200	0.1083	0
Fryerstown	monthly	12	0.1100	0.0928	0
Goornong	monthly	12	0.1500	0.1042	0
Guildford	monthly	12	0.1200	0.0849	0
Gunbower	monthly	12	0.0610	0.0440	0
Harcourt	monthly	12	0.1000	0.0842	0
Heathcote	monthly	12	0.1300	0.0885	0
Junortoun ¹	monthly/wkly	22	0.2000	0.1034	0
Korong Vale	monthly	12	0.0300	0.0217	0
Kyneton	monthly	12	0.0890	0.0568	0
Laanecoorie	monthly	12	0.0960	0.0374	0
Leitchville	monthly	12	0.0480	0.0322	0
Lockington	monthly	12	0.0620	0.0403	0
Maiden Gully - Marong ¹	monthly/wkly	22	0.2200	0.1076	0
Maldon	monthly	12	0.1200	0.1047	0
Malmsbury	monthly	12	0.0980	0.0773	0
Newstead	monthly	12	0.1100	0.0808	0
Pyramid Hill	monthly	12	0.0530	0.0372	0
Raywood	monthly	12	0.2200	0.1023	0
Rochester	monthly	12	0.0550	0.0280	0
Sebastian	monthly	12	0.2400	0.1010	0
Serpentine	monthly	12	0.1100	0.0528	0
Strathfieldsaye ¹	monthly/wkly	21	0.1700	0.0868	0
Taradale - Elphinstone	monthly	12	0.0820	0.0658	0
Tarnagulla	monthly	12	0.0920	0.0371	0
Tooborac	monthly	12	0.1400	0.0969	0
Trentham	monthly	12	0.0650	0.0491	0
Tylden	monthly	12	0.0920	0.0623	0
Wedderburn	monthly	12	0.0280	0.0208	0

Note:

1 Monthly sampling increased to weekly during free chlorination project.

Turbidity – Customer tap sites 2024/25

Turbidity is a measure of the particulate matter in water and is monitored in all water sampling localities. High turbidity in the reticulation may indicate poor operation of the water treatment process and/or increased risk of microbiological contamination.

Table 25: Turbidity results for customer tap sites (Schedule 2 – Drinking water quality standards: 95th percentile of results over a 12-month period must be ≤ 5.0 NTU)

Water sampling locality	Sampling frequency	Number of samples	Maximum value (NTU)	95th percentile of results (NTU)	Number of 95th percentile of results above standard
Axedale	weekly	52	0.2	0.1	0
Bealiba	weekly	52	0.6	0.3	0
Bendigo (Northern)	weekly	52	0.5	0.2	0
Bendigo (Southern)	weekly	52	0.2	0.1	0
Bendigo (Spring Gully)	weekly	52	0.2	0.1	0
Big Hill	weekly	52	0.2	0.2	0
Boort	weekly	52	0.2	0.1	0
Bridgewater – Inglewood	weekly	52	0.4	0.3	0
Castlemaine	weekly	53	0.3	0.1	0
Cohuna	weekly	52	0.6	0.2	0
Dunolly	weekly	52	2.4	0.3	0
Echuca	weekly	53	0.2	0.1	0
Elmore	weekly	53	0.4	0.1	0
Epsom – Huntly	weekly	53	0.3	0.2	0
Fryerstown	weekly	53	0.5	0.2	0
Goornong	weekly	53	0.4	0.2	0
Guildford	weekly	53	0.2	0.1	0
Gunbower	weekly	52	0.3	0.1	0
Harcourt	weekly	53	0.1	0.1	0
Heathcote	weekly	52	0.4	0.2	0
Junortoun	weekly	52	0.4	0.2	0
Korong Vale	weekly	52	1.0	0.5	0
Kyneton	weekly	52	0.1	0.1	0
Laanecoorie ¹	weekly	52	5.9	0.7	0
Leitchville	weekly	52	0.3	0.2	0
Lockington	weekly	53	0.2	0.1	0
Maiden Gully – Marong	weekly	52	0.1	0.1	0
Maldon	weekly	53	0.3	0.1	0
Malmsbury ²	weekly	51	0.2	0.1	0
Newstead	weekly	53	0.2	0.1	0
Pyramid Hill	weekly	52	0.2	0.1	0
Raywood	weekly	52	0.5	0.2	0
Rochester	weekly	53	0.4	0.1	0
Sebastian	weekly	52	0.3	0.1	0
Serpentine	weekly	52	0.5	0.3	0
Strathfieldsaye	weekly	52	0.2	0.1	0
Taradale – Elphinstone	weekly	52	0.5	0.1	0
Tarnagulla	weekly	52	0.1	0.1	0
Tooborac	weekly	52	0.3	0.2	0
Trentham	weekly	52	0.6	0.1	0
Tylden	weekly	52	0.1	0.1	0
Wedderburn	weekly	52	0.6	0.4	0

Notes

1 Mains flushing was undertaken following mains burst rectification, and this is considered to be sediment as a result of the flushing velocity.

2 Missed sample refer Section 4.2.1 for details.

Chloroacetic Acid – Customer tap sites 2024/25

Table 26: Chloroacetic acid results for customer tap sites (Water quality standard – ADWG health-based guideline value: 0.15 mg/L)

Water sampling locality	Sampling frequency	Number of samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met
Axedale	quarterly	4	<0.005	<0.005	0
Bealiba	quarterly	4	<0.005	<0.005	0
Bendigo (Northern)	quarterly	4	<0.005	<0.005	0
Bendigo (Southern)	quarterly	4	<0.005	<0.005	0
Bendigo (Spring Gully)	quarterly	4	<0.005	<0.005	0
Big Hill	quarterly	4	<0.005	<0.005	0
Boort	quarterly	4	<0.005	<0.005	0
Bridgewater - Inglewood	quarterly	4	<0.005	<0.005	0
Castlemaine	quarterly	4	<0.005	<0.005	0
Cohuna	quarterly	4	<0.005	<0.005	0
Dunolly	quarterly	4	<0.005	<0.005	0
Echuca	quarterly	4	<0.005	<0.005	0
Elmore	n/a	n/a	n/a	n/a	n/a
Epsom - Huntly	quarterly	4	<0.005	<0.005	0
Fryerstown	quarterly	4	<0.005	<0.005	0
Goornong	quarterly	4	<0.005	<0.005	0
Guildford	quarterly	4	<0.005	<0.005	0
Gunbower	quarterly	4	<0.005	<0.005	0
Harcourt	quarterly	4	<0.005	<0.005	0
Heathcote	quarterly	4	<0.005	<0.005	0
Junortoun	quarterly	4	<0.005	<0.005	0
Korong Vale	quarterly	4	<0.005	<0.005	0
Kyneton	quarterly	4	<0.005	<0.005	0
Laanecoorie	quarterly	4	<0.005	<0.005	0
Leitchville	quarterly	4	<0.005	<0.005	0
Lockington	quarterly	4	<0.005	<0.005	0
Maiden Gully - Marong	quarterly	4	<0.005	<0.005	0
Maldon	quarterly	4	<0.005	<0.005	0
Malmsbury	quarterly	4	<0.005	<0.005	0
Newstead	quarterly	4	<0.005	<0.005	0
Pyramid Hill	quarterly	4	<0.005	<0.005	0
Raywood	quarterly	4	<0.005	<0.005	0
Rochester	quarterly	4	<0.005	<0.005	0
Sebastian	quarterly	4	<0.005	<0.005	0
Serpentine	quarterly	4	<0.005	<0.005	0
Strathfieldsaye	quarterly	4	<0.005	<0.005	0
Taradale - Elphinstone	quarterly	4	<0.005	<0.005	0
Tarnagulla	quarterly	4	<0.005	<0.005	0
Tooborac	quarterly	4	<0.005	<0.005	0
Trentham	quarterly	4	<0.005	<0.005	0
Tylden	quarterly	4	<0.005	<0.005	0
Wedderburn	quarterly	4	<0.005	<0.005	0

Note:

1 Chlorine is not used for disinfection at Elmore. Chlorine-based disinfection by-products are not deemed to be a significant risk in drinking water supplied by Coliban Water that has not been chlorinated.

Dichloroacetic Acid – Customer tap sites 2024/25

Table 27: Dichloroacetic acid results for customer tap sites (Water quality standard – ADWG health-based guideline value: 0.1 mg/L)

Water sampling locality	Sampling frequency	Number of samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met
Axedale	quarterly	4	0.008	0.007	0
Bealiba	quarterly	4	0.014	0.013	0
Bendigo (Northern)	quarterly	4	0.025	0.008	0
Bendigo (Southern)	quarterly	4	0.005	0.003	0
Bendigo (Spring Gully)	quarterly	4	0.034	0.010	0
Big Hill	quarterly	4	0.027	0.009	0
Boort	quarterly	4	0.009	0.006	0
Bridgewater - Inglewood	quarterly	4	0.006	0.004	0
Castlemaine	quarterly	4	0.018	0.016	0
Cohuna	quarterly	4	0.016	0.009	0
Dunolly	quarterly	4	0.012	0.010	0
Echuca	quarterly	4	0.013	0.009	0
Elmore ¹	n/a	n/a	n/a	n/a	n/a
Epsom - Huntly	quarterly	4	0.007	0.004	0
Fryerstown	quarterly	4	0.026	0.020	0
Goornong	quarterly	4	0.008	0.006	0
Guildford	quarterly	4	0.020	0.015	0
Gunbower	quarterly	4	0.016	0.012	0
Harcourt	quarterly	4	0.021	0.014	0
Heathcote	quarterly	4	0.017	0.015	0
Junortoun	quarterly	4	<0.01	<0.01	0
Korong Vale	quarterly	4	0.008	0.006	0
Kyneton	quarterly	4	0.019	0.013	0
Laanecoorie	quarterly	4	0.007	0.005	0
Leitchville	quarterly	4	0.015	0.011	0
Lockington	quarterly	4	0.010	0.006	0
Maiden Gully - Marong	quarterly	4	0.025	0.009	0
Maldon	quarterly	4	0.006	0.004	0
Malmsbury	quarterly	4	0.020	0.015	0
Newstead	quarterly	4	0.021	0.015	0
Pyramid Hill	quarterly	4	0.009	0.006	0
Raywood	quarterly	4	0.009	0.008	0
Rochester	quarterly	4	0.010	0.005	0
Sebastian	quarterly	4	<0.005	<0.005	0
Serpentine	quarterly	4	0.024	0.014	0
Strathfieldsaye	quarterly	4	0.017	0.006	0
Taradale - Elphinstone	quarterly	4	0.019	0.016	0
Tarnagulla	quarterly	4	0.013	0.009	0
Tooborac	quarterly	4	0.022	0.016	0
Trentham	quarterly	4	0.013	0.010	0
Tylden	quarterly	4	0.015	0.013	0
Wedderburn	quarterly	4	0.011	0.010	0

Note:

- 1 Chlorine is not used for disinfection at Elmore. Chlorine-based disinfection by-products are not deemed to be a significant risk in drinking water supplied by Coliban Water that has not been chlorinated.

Trichloroacetic Acid – Customer tap sites 2024/25

Table 28: Trichloroacetic acid results for customer tap sites (Water quality standard – ADWG health-based guideline value 0.1 mg/L)

Water sampling locality	Sampling frequency	Number of samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met
Axedale	quarterly	4	0.010	0.004	0
Bealiba	quarterly	4	<0.005	<0.005	0
Bendigo (Northern)	quarterly	4	0.019	0.007	0
Bendigo (Southern)	quarterly	4	0.011	0.005	0
Bendigo (Spring Gully)	quarterly	4	0.026	0.008	0
Big Hill	quarterly	4	0.012	0.005	0
Boort	quarterly	4	<0.005	<0.005	0
Bridgewater - Inglewood	quarterly	4	<0.005	<0.005	0
Castlemaine	quarterly	4	0.011	0.010	0
Cohuna	quarterly	4	0.015	0.008	0
Dunolly	quarterly	4	<0.005	<0.005	0
Echuca	quarterly	4	0.014	0.008	0
Elmore	n/a	n/a	n/a	n/a	n/a
Epsom - Huntly	quarterly	4	0.021	0.007	0
Fryerstown	quarterly	4	0.023	0.015	0
Goornong	quarterly	4	0.005	0.003	0
Guildford	quarterly	4	0.012	0.009	0
Gunbower	quarterly	4	0.012	0.010	0
Harcourt	quarterly	4	0.016	0.011	0
Heathcote	quarterly	4	0.011	0.007	0
Junortoun	quarterly	4	0.019	0.007	0
Korong Vale	quarterly	4	<0.005	<0.005	0
Kyneton	quarterly	4	0.011	0.009	0
Laanecoorie	quarterly	4	<0.005	<0.005	0
Leitchville	quarterly	4	0.013	0.009	0
Lockington	quarterly	4	0.006	0.003	0
Maiden Gully - Marong	quarterly	4	0.018	0.006	0
Maldon	quarterly	4	0.012	0.009	0
Malmsbury	quarterly	4	0.016	0.014	0
Newstead	quarterly	4	0.017	0.013	0
Pyramid Hill	quarterly	4	<0.005	<0.005	0
Raywood	quarterly	4	<0.005	<0.005	0
Rochester	quarterly	4	<0.005	<0.005	0
Sebastian	quarterly	4	<0.005	<0.005	0
Serpentine	quarterly	4	0.010	0.008	0
Strathfieldsaye	quarterly	4	0.011	0.005	0
Taradale - Elphinstone	quarterly	4	0.014	0.011	0
Tarnagulla	quarterly	4	<0.005	<0.005	0
Tooborac	quarterly	4	0.016	0.012	0
Trentham	quarterly	4	0.014	0.010	0
Tylden	quarterly	4	0.011	0.010	0
Wedderburn	quarterly	4	<0.005	<0.005	0

Note:

- Chlorine is not used for disinfection at Elmore. Chlorine-based disinfection by-products are not deemed to be a significant risk in drinking water supplied by Coliban Water that has not been chlorinated.

Bromate – Customer tap sites 2024/25

Table 29: Bromate results for customer tap sites (Water quality standard – ADWG health-based guideline value: 0.02 mg/L)

Water sampling locality	Sampling frequency	Number of samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met
Axedale	monthly	12	<0.005	<0.005	0
Bealiba	n/a	n/a	n/a	n/a	n/a
Bendigo (Northern)	monthly	12	<0.005	<0.005	0
Bendigo (Southern)	monthly	12	<0.005	<0.005	0
Bendigo (Spring Gully)	monthly	12	<0.005	<0.005	0
Big Hill	monthly	12	<0.005	<0.005	0
Boort	n/a	n/a	n/a	n/a	n/a
Bridgewater - Inglewood	n/a	n/a	n/a	n/a	n/a
Castlemaine	quarterly	4	<0.005	<0.005	0
Cohuna	n/a	n/a	n/a	n/a	n/a
Dunolly	n/a	n/a	n/a	n/a	n/a
Echuca	n/a	n/a	n/a	n/a	n/a
Elmore	n/a	n/a	n/a	n/a	n/a
Epsom - Huntly	monthly	12	<0.005	<0.005	0
Fryerstown	quarterly	4	<0.005	<0.005	0
Goornong	n/a	n/a	n/a	n/a	n/a
Guildford	quarterly	4	<0.005	<0.005	0
Gunbower	n/a	n/a	n/a	n/a	n/a
Harcourt	quarterly	4	<0.005	<0.005	0
Heathcote	n/a	n/a	n/a	n/a	n/a
Junortoun	monthly	12	<0.005	<0.005	0
Korong Vale	n/a	n/a	n/a	n/a	n/a
Kyneton	quarterly	4	<0.005	<0.005	0
Laanecoorie	n/a	n/a	n/a	n/a	n/a
Leitchville	n/a	n/a	n/a	n/a	n/a
Lockington	n/a	n/a	n/a	n/a	n/a
Maiden Gully - Marong	monthly	12	<0.005	<0.005	0
Maldon	quarterly	4	<0.005	<0.005	0
Malmsbury	quarterly	4	<0.005	<0.005	0
Newstead	quarterly	4	<0.005	<0.005	0
Pyramid Hill	n/a	n/a	n/a	n/a	n/a
Raywood	monthly	12	<0.005	<0.005	0
Rochester	n/a	n/a	n/a	n/a	n/a
Sebastian	monthly	12	<0.005	<0.005	0
Serpentine	n/a	n/a	n/a	n/a	n/a
Strathfieldsaye	monthly	12	<0.005	<0.005	0
Taradale - Elphinstone	quarterly	4	<0.005	<0.005	0
Tarnagulla	n/a	n/a	n/a	n/a	n/a
Tooborac	n/a	n/a	n/a	n/a	n/a
Trentham	n/a	n/a	n/a	n/a	n/a
Tylden	quarterly	4	<0.005	<0.005	0
Wedderburn	n/a	n/a	n/a	n/a	n/a

Note:

Bromate is monitored in localities where ozone is used in treatment, as ozone can result in the production of this by-products in drinking water.

Ozone is used at the Bendigo, Castlemaine and Kyneton plants. Review of historical data has identified sampling localities supplied from Castlemaine and Kyneton plants as low risk, therefore monitoring is quarterly in those localities.

Ozone-based disinfection by-products are not deemed to be a significant risk in drinking water we supply that has not been ozonated.

Formaldehyde – Customer tap sites 2024/25

Table 30: Formaldehyde results for customer tap sites (Water quality standard – ADWG health-based guideline value: 0.5 mg/L)

Water sampling locality	Sampling frequency	Number of samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met
Axedale	monthly	12	<0.05	<0.05	0
Bealiba	n/a	n/a	n/a	n/a	n/a
Bendigo (Northern)	monthly	12	<0.05	<0.05	0
Bendigo (Southern)	monthly	12	<0.05	<0.05	0
Bendigo (Spring Gully)	monthly	12	<0.05	<0.05	0
Big Hill	monthly	12	<0.05	<0.05	0
Boort	n/a	n/a	n/a	n/a	n/a
Bridgewater - Inglewood	n/a	n/a	n/a	n/a	n/a
Castlemaine	quarterly	4	<0.05	<0.05	0
Cohuna	n/a	n/a	n/a	n/a	n/a
Dunolly	n/a	n/a	n/a	n/a	n/a
Echuca	n/a	n/a	n/a	n/a	n/a
Elmore	n/a	n/a	n/a	n/a	n/a
Epsom - Huntly	monthly	12	<0.05	<0.05	0
Fryerstown	quarterly	4	<0.05	<0.05	0
Goornong	n/a	n/a	n/a	n/a	n/a
Guildford	quarterly	4	<0.05	<0.05	0
Gunbower	n/a	n/a	n/a	n/a	n/a
Harcourt	quarterly	4	<0.05	<0.05	0
Heathcote	n/a	n/a	n/a	n/a	n/a
Junortoun	monthly	12	<0.05	<0.05	0
Korong Vale	n/a	n/a	n/a	n/a	n/a
Kyneton	quarterly	4	<0.05	<0.05	0
Laanecoorie	n/a	n/a	n/a	n/a	n/a
Leitchville	n/a	n/a	n/a	n/a	n/a
Lockington	n/a	n/a	n/a	n/a	n/a
Maiden Gully - Marong	monthly	12	<0.05	<0.05	0
Maldon	quarterly	4	<0.05	<0.05	0
Malmsbury	quarterly	4	<0.05	<0.05	0
Newstead	quarterly	4	<0.05	<0.05	0
Pyramid Hill	n/a	n/a	n/a	n/a	n/a
Raywood	monthly	12	<0.05	<0.05	0
Rochester	n/a	n/a	n/a	n/a	n/a
Sebastian	monthly	12	<0.05	<0.05	0
Serpentine	n/a	n/a	n/a	n/a	n/a
Strathfieldsaye	monthly	12	<0.05	<0.05	0
Taradale - Elphinstone	quarterly	4	<0.05	<0.05	0
Tarnagulla	n/a	n/a	n/a	n/a	n/a
Tooborac	n/a	n/a	n/a	n/a	n/a
Trentham	n/a	n/a	n/a	n/a	n/a
Tylden	quarterly	4	<0.05	<0.05	0
Wedderburn	n/a	n/a	n/a	n/a	n/a

Note:

Formaldehyde is monitored in localities where ozone is used in treatment, as ozone can result in the production of this by-products in drinking water.

Ozone is used at the Bendigo, Castlemaine and Kyneton plants. Review of historical data has identified sampling localities supplied from Castlemaine and Kyneton plants as low risk, therefore monitoring is quarterly in those localities.

Ozone-based disinfection by-products are not deemed to be a significant risk in drinking water we supply that has not been ozonated.

Fluoride – Customer tap sites 2024/25

Table 31: Fluoride results for customer tap sites (Water quality standard – ADWG health-based guideline value: 1.5 mg/L)

Water sampling locality	Sampling frequency	Number of samples	Target optimum operating fluoride concentration (mg/L)	Max (mg/L)	Min (mg/L)	Average (mg/L)	Number of samples where standard was not met
Axedale	monthly	12	0.9	0.960	0.830	0.892	0
Bealiba	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Bendigo (Northern)	monthly	12	0.9	1.000	0.820	0.900	0
Bendigo (Southern)	monthly	12	0.9	0.970	0.820	0.893	0
Bendigo (Spring Gully)	monthly	12	0.9	0.960	0.830	0.889	0
Big Hill	monthly	12	0.9	0.990	0.820	0.910	0
Boort	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Bridgewater - Inglewood	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Castlemaine	monthly	12	0.9	0.980	0.840	0.895	0
Cohuna	weekly	52	0.8	0.920	0.670	0.727	0
Dunolly	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Echuca ¹	weekly	n/a	0.8	n/a	n/a	n/a	n/a
Elmore	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Epsom - Huntly	monthly	12	0.9	0.970	0.820	0.901	0
Fryerstown	monthly	12	0.9	0.990	0.820	0.905	0
Goornong	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Guildford	monthly	12	0.9	0.990	0.800	0.898	0
Gunbower	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Harcourt	monthly	12	0.9	0.970	0.820	0.903	0
Heathcote	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Junortoun	monthly	12	0.9	1.000	0.840	0.916	0
Korong Vale	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Kyneton ²	weekly	52	0.9	0.970	0.080	0.833	0
Laanecoorie	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Leitchville	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Lockington	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Maiden Gully - Marong	monthly	12	0.9	0.960	0.860	0.905	0
Maldon	monthly	12	0.9	0.950	0.830	0.895	0
Malmsbury ^{2&3}	weekly	51	0.9	0.950	0.080	0.834	0
Newstead	monthly	12	0.9	0.980	0.850	0.893	0
Pyramid Hill	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Raywood	monthly	12	0.9	0.960	0.820	0.896	0
Rochester	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Sebastian	monthly	12	0.9	0.940	0.830	0.897	0
Serpentine	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Strathfieldsay	monthly	12	0.9	0.980	0.830	0.900	0
Taradale - Elphinstone	monthly	12	0.9	0.980	0.860	0.912	0
Tarnagulla	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Tooborac	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Trentham	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Tylden ²	weekly	52	0.9	0.960	0.060	0.835	0
Wedderburn	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Note:

- 1 Echuca fluoride system was shut down for major refurbishment on 8 September 2023.
- 2 Kyneton fluoride system was off-line 7/10 – 1/11 while the fluoride tank was replaced as part of normal maintenance.
- 3 Missed sample refer Section 4.2.1 for details.

Arsenic – Customer tap sites 2024/25

Table 32: Arsenic results for customer tap sites (Water quality standard – ADWG health-based guideline value: 0.01 mg/L)

Water sampling locality	Sampling frequency	Number of samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met
Axedale	quarterly	4	<0.001	<0.001	0
Bealiba	quarterly	4	<0.001	<0.001	0
Bendigo (Northern)	quarterly	4	<0.001	<0.001	0
Bendigo (Southern)	quarterly	4	<0.001	<0.001	0
Bendigo (Spring Gully)	quarterly	4	<0.001	<0.001	0
Big Hill	quarterly	4	<0.001	<0.001	0
Boort	quarterly	4	<0.001	<0.001	0
Bridgewater - Inglewood	quarterly	4	<0.001	<0.001	0
Castlemaine	quarterly	4	<0.001	<0.001	0
Cohuna	quarterly	4	<0.001	<0.001	0
Dunolly	quarterly	4	<0.001	<0.001	0
Echuca	quarterly	4	<0.001	<0.001	0
Elmore	quarterly	4	<0.001	<0.001	0
Epsom - Huntly	quarterly	4	<0.001	<0.001	0
Fryerstown	quarterly	4	<0.001	<0.001	0
Goornong	quarterly	4	<0.001	<0.001	0
Guildford	quarterly	4	<0.001	<0.001	0
Gunbower	quarterly	4	<0.001	<0.001	0
Harcourt	quarterly	4	<0.001	<0.001	0
Heathcote	quarterly	4	<0.001	<0.001	0
Junortoun	quarterly	4	<0.001	<0.001	0
Korong Vale	quarterly	4	<0.001	<0.001	0
Kyneton	quarterly	4	<0.001	<0.001	0
Laanecoorie	quarterly	4	<0.001	<0.001	0
Leitchville	quarterly	4	<0.001	<0.001	0
Lockington	quarterly	4	<0.001	<0.001	0
Maiden Gully - Marong	quarterly	4	<0.001	<0.001	0
Maldon	quarterly	4	<0.001	<0.001	0
Malmsbury	quarterly	4	<0.001	<0.001	0
Newstead	quarterly	4	<0.001	<0.001	0
Pyramid Hill	quarterly	4	<0.001	<0.001	0
Raywood	quarterly	4	<0.001	<0.001	0
Rochester	quarterly	4	<0.001	<0.001	0
Sebastian	quarterly	4	<0.001	<0.001	0
Serpentine	quarterly	4	<0.001	<0.001	0
Strathfieldsaye	quarterly	4	<0.001	<0.001	0
Taradale - Elphinstone	quarterly	4	<0.001	<0.001	0
Tarnagulla	quarterly	4	<0.001	<0.001	0
Tooborac	quarterly	4	<0.001	<0.001	0
Trentham	quarterly	4	<0.001	<0.001	0
Tylden	quarterly	4	<0.001	<0.001	0
Wedderburn	quarterly	4	<0.001	<0.001	0

Cadmium – Customer tap sites 2024/25

Table 33: Cadmium results for customer tap sites (Water quality standard – ADWG health-based guideline value: 0.002 mg/L)

Water sampling locality	Sampling frequency	Number of samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met
Axedale	quarterly	4	<0.0002	<0.0002	0
Bealiba	quarterly	4	<0.0002	<0.0002	0
Bendigo (Northern)	quarterly	4	<0.0002	<0.0002	0
Bendigo (Southern)	quarterly	4	<0.0002	<0.0002	0
Bendigo (Spring Gully)	quarterly	4	<0.0002	<0.0002	0
Big Hill	quarterly	4	<0.0002	<0.0002	0
Boort	quarterly	4	<0.0002	<0.0002	0
Bridgewater - Inglewood	quarterly	4	<0.0002	<0.0002	0
Castlemaine	quarterly	4	<0.0002	<0.0002	0
Cohuna	quarterly	4	<0.0002	<0.0002	0
Dunolly	quarterly	4	<0.0002	<0.0002	0
Echuca	quarterly	4	<0.0002	<0.0002	0
Elmore	quarterly	4	<0.0002	<0.0002	0
Epsom - Huntly	quarterly	4	<0.0002	<0.0002	0
Fryerstown	quarterly	4	<0.0002	<0.0002	0
Goornong	quarterly	4	<0.0002	<0.0002	0
Guildford	quarterly	4	<0.0002	<0.0002	0
Gunbower	quarterly	4	<0.0002	<0.0002	0
Harcourt	quarterly	4	<0.0002	<0.0002	0
Heathcote	quarterly	4	<0.0002	<0.0002	0
Junortoun	quarterly	4	<0.0002	<0.0002	0
Korong Vale	quarterly	4	<0.0002	<0.0002	0
Kyneton	quarterly	4	<0.0002	<0.0002	0
Laanecoorie	quarterly	4	<0.0002	<0.0002	0
Leitchville	quarterly	4	<0.0002	<0.0002	0
Lockington	quarterly	4	<0.0002	<0.0002	0
Maiden Gully - Marong	quarterly	4	<0.0002	<0.0002	0
Maldon	quarterly	4	<0.0002	<0.0002	0
Malmsbury	quarterly	4	<0.0002	<0.0002	0
Newstead	quarterly	4	<0.0002	<0.0002	0
Pyramid Hill	quarterly	4	<0.0002	<0.0002	0
Raywood	quarterly	4	<0.0002	<0.0002	0
Rochester	quarterly	4	<0.0002	<0.0002	0
Sebastian	quarterly	4	<0.0002	<0.0002	0
Serpentine	quarterly	4	<0.0002	<0.0002	0
Strathfieldsaye	quarterly	4	<0.0002	<0.0002	0
Taradale - Elphinstone	quarterly	4	<0.0002	<0.0002	0
Tarnagulla	quarterly	4	<0.0002	<0.0002	0
Tooborac	quarterly	4	<0.0002	<0.0002	0
Trentham	quarterly	4	<0.0002	<0.0002	0
Tylden	quarterly	4	<0.0002	<0.0002	0
Wedderburn	quarterly	4	<0.0002	<0.0002	0

Chlorine – Customer tap sites 2024/25

Table 34: Chlorine results for customer tap sites (Water quality standard – ADWG health-based guideline value: 5 mg/L)

Water sampling locality	Sampling frequency	Number of samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met
Axedale	weekly	52	2.60	1.31	0
Bealiba	weekly	52	2.20	1.69	0
Bendigo (Northern)	weekly	136	2.20	1.48	0
Bendigo (Southern)	weekly	136	2.20	1.73	0
Bendigo (Spring Gully)	weekly	76	2.20	1.70	0
Big Hill	weekly	52	2.20	0.95	0
Boort	weekly	52	2.30	1.37	0
Bridgewater - Inglewood	weekly	52	2.60	1.73	0
Castlemaine	weekly	76	2.20	1.73	0
Cohuna	weekly	52	2.10	1.73	0
Dunolly	weekly	52	2.50	1.83	0
Echuca	weekly	88	2.30	1.51	0
Elmore ¹	n/a	n/a	n/a	n/a	n/a
Epsom - Huntly	weekly	76	2.11	0.96	0
Fryerstown	weekly	53	2.00	0.81	0
Goornong	weekly	53	2.20	1.04	0
Guildford	weekly	53	1.50	0.89	0
Gunbower	weekly	52	2.20	1.56	0
Harcourt	weekly	53	2.20	1.05	0
Heathcote	weekly	52	2.20	1.82	0
Junortoun	weekly	52	1.50	0.47	0
Korong Vale	weekly	52	2.30	1.83	0
Kyneton	weekly	64	2.40	1.93	0
Laanecoorie	weekly	52	2.80	1.60	0
Leitchville	weekly	52	2.30	1.70	0
Lockington	weekly	53	2.80	1.66	0
Maiden Gully - Marong	weekly	53	2.20	1.34	0
Maldon	weekly	53	1.60	1.01	0
Malmsbury	weekly	51	1.80	0.98	0
Newstead	weekly	53	2.00	1.20	0
Pyramid Hill	weekly	52	2.30	1.42	0
Raywood	weekly	52	2.20	1.00	0
Rochester	weekly	53	1.90	1.45	0
Sebastian	weekly	52	2.20	0.64	0
Serpentine	weekly	52	2.20	1.44	0
Strathfieldsaye	weekly	64	2.17	1.41	0
Taradale - Elphinstone	weekly	52	2.20	1.53	0
Tarnagulla	weekly	52	3.20	1.73	0
Tooborac	weekly	52	1.90	0.82	0
Trentham	weekly	52	2.20	1.54	0
Tylden	weekly	52	2.20	1.74	0
Wedderburn	weekly	52	2.13	1.45	0

Localities with populations greater than 5,000 have additional sampling to the one sample per week (one additional sample per month for each 5,000 above 5,000 population in accordance with the Australian Drinking Water Guidelines (2011)).

Note:

1 Chlorine is not used for disinfection at Elmore.

Chromium – Customer tap sites 2024/25

Table 35: Chromium results for customer tap sites (Water quality standard – ADWG health-based guideline value: 0.05 mg/L)

Water sampling locality	Sampling frequency	Number of samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met
Axedale	quarterly	4	<0.001	<0.001	0
Bealiba	quarterly	4	<0.001	<0.001	0
Bendigo (Northern)	quarterly	4	<0.001	<0.001	0
Bendigo (Southern)	quarterly	4	<0.001	<0.001	0
Bendigo (Spring Gully)	quarterly	4	<0.001	<0.001	0
Big Hill	quarterly	4	<0.001	<0.001	0
Boort	quarterly	4	<0.001	<0.001	0
Bridgewater - Inglewood	quarterly	4	<0.001	<0.001	0
Castlemaine	quarterly	4	<0.001	<0.001	0
Cohuna	quarterly	4	<0.001	<0.001	0
Dunolly	quarterly	4	<0.001	<0.001	0
Echuca	quarterly	4	<0.001	<0.001	0
Elmore	quarterly	4	<0.001	<0.001	0
Epsom - Huntly	quarterly	4	<0.001	<0.001	0
Fryerstown	quarterly	4	<0.001	<0.001	0
Goornong	quarterly	4	<0.001	<0.001	0
Guildford	quarterly	4	<0.001	<0.001	0
Gunbower	quarterly	4	<0.001	<0.001	0
Harcourt	quarterly	4	0.001	0.001	0
Heathcote	quarterly	4	<0.001	<0.001	0
Junortoun	quarterly	4	<0.001	<0.001	0
Korong Vale	quarterly	4	<0.001	<0.001	0
Kyneton	quarterly	4	<0.001	<0.001	0
Laanecoorie	quarterly	4	<0.001	<0.001	0
Leitchville	quarterly	4	<0.001	<0.001	0
Lockington	quarterly	4	<0.001	<0.001	0
Maiden Gully - Marong	quarterly	4	<0.001	<0.001	0
Maldon	quarterly	4	<0.001	<0.001	0
Malmsbury	quarterly	4	<0.001	<0.001	0
Newstead	quarterly	4	<0.001	<0.001	0
Pyramid Hill	quarterly	4	<0.001	<0.001	0
Raywood	quarterly	4	<0.001	<0.001	0
Rochester	quarterly	4	<0.001	<0.001	0
Sebastian	quarterly	4	<0.001	<0.001	0
Serpentine	quarterly	4	<0.001	<0.001	0
Strathfieldsaye	quarterly	4	<0.001	<0.001	0
Taradale - Elphinstone	quarterly	4	<0.001	<0.001	0
Tarnagulla	quarterly	4	<0.001	<0.001	0
Tooborac	quarterly	4	<0.001	<0.001	0
Trentham	quarterly	4	<0.001	<0.001	0
Tylden	quarterly	4	<0.001	<0.001	0
Wedderburn	quarterly	4	<0.001	<0.001	0

Cyanide – Customer tap sites 2024/25

Table 36: Cyanide results for customer tap sites (Water quality standard – ADWG health-based guideline value: 0.08 mg/L)

Water sampling locality	Sampling frequency	Number of samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met
Axedale	quarterly	4	<0.005	<0.005	0
Bealiba	quarterly	4	<0.005	<0.005	0
Bendigo (Northern)	quarterly	4	<0.005	<0.005	0
Bendigo (Southern)	quarterly	4	<0.005	<0.005	0
Bendigo (Spring Gully)	quarterly	4	<0.005	<0.005	0
Big Hill	quarterly	4	<0.005	<0.005	0
Boort	quarterly	4	<0.005	<0.005	0
Bridgewater - Inglewood	quarterly	4	<0.005	<0.005	0
Castlemaine	quarterly	4	<0.005	<0.005	0
Cohuna	quarterly	4	<0.005	<0.005	0
Dunolly	quarterly	4	<0.005	<0.005	0
Echuca	quarterly	4	<0.005	<0.005	0
Elmore	quarterly	4	<0.005	<0.005	0
Epsom - Huntly	quarterly	4	<0.005	<0.005	0
Fryerstown	quarterly	4	<0.005	<0.005	0
Goornong	quarterly	4	<0.005	<0.005	0
Guildford	quarterly	4	<0.005	<0.005	0
Gunbower	quarterly	4	<0.005	<0.005	0
Harcourt	quarterly	4	<0.005	<0.005	0
Heathcote	quarterly	4	<0.005	<0.005	0
Junortoun	quarterly	4	<0.005	<0.005	0
Korong Vale	quarterly	4	<0.005	<0.005	0
Kyneton	quarterly	4	<0.005	<0.005	0
Laanecoorie	quarterly	4	<0.005	<0.005	0
Leitchville	quarterly	4	<0.005	<0.005	0
Lockington	quarterly	4	<0.005	<0.005	0
Maiden Gully - Marong	quarterly	4	<0.005	<0.005	0
Maldon	quarterly	4	<0.005	<0.005	0
Malmsbury	quarterly	4	<0.005	<0.005	0
Newstead	quarterly	4	<0.005	<0.005	0
Pyramid Hill	quarterly	4	<0.005	<0.005	0
Raywood	quarterly	4	<0.005	<0.005	0
Rochester	quarterly	4	<0.005	<0.005	0
Sebastian	quarterly	4	<0.005	<0.005	0
Serpentine	quarterly	4	<0.005	<0.005	0
Strathfieldsaye	quarterly	4	<0.005	<0.005	0
Taradale - Elphinstone	quarterly	4	<0.005	<0.005	0
Tarnagulla	quarterly	4	<0.005	<0.005	0
Tooborac	quarterly	4	<0.005	<0.005	0
Trentham	quarterly	4	<0.005	<0.005	0
Tylden	quarterly	4	<0.005	<0.005	0
Wedderburn	quarterly	4	<0.005	<0.005	0

Mercury – Customer tap sites 2024/25

Table 37: Mercury results for customer tap sites (Water quality standard – ADWG health-based guideline value: 0.001 mg/L)

Water sampling locality	Sampling frequency	Number of samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met
Axedale	quarterly	4	<0.0001	<0.0001	0
Bealiba	quarterly	4	<0.0001	<0.0001	0
Bendigo (Northern)	quarterly	4	<0.0001	<0.0001	0
Bendigo (Southern)	quarterly	4	<0.0001	<0.0001	0
Bendigo (Spring Gully)	quarterly	4	<0.0001	<0.0001	0
Big Hill	quarterly	4	<0.0001	<0.0001	0
Boort	quarterly	4	<0.0001	<0.0001	0
Bridgewater - Inglewood	quarterly	4	<0.0001	<0.0001	0
Castlemaine	quarterly	4	<0.0001	<0.0001	0
Cohuna	quarterly	4	<0.0001	<0.0001	0
Dunolly	quarterly	4	<0.0001	<0.0001	0
Echuca	quarterly	4	<0.0001	<0.0001	0
Elmore	quarterly	4	<0.0001	<0.0001	0
Epsom - Huntly	quarterly	4	<0.0001	<0.0001	0
Fryerstown	quarterly	4	<0.0001	<0.0001	0
Goornong	quarterly	4	<0.0001	<0.0001	0
Guildford	quarterly	4	<0.0001	<0.0001	0
Gunbower	quarterly	4	<0.0001	<0.0001	0
Harcourt	quarterly	4	<0.0001	<0.0001	0
Heathcote	quarterly	4	<0.0001	<0.0001	0
Junortoun	quarterly	4	<0.0001	<0.0001	0
Korong Vale	quarterly	4	<0.0001	<0.0001	0
Kyneton	quarterly	4	<0.0001	<0.0001	0
Laanecoorie	quarterly	4	<0.0001	<0.0001	0
Leitchville	quarterly	4	<0.0001	<0.0001	0
Lockington	quarterly	4	<0.0001	<0.0001	0
Maiden Gully - Marong	quarterly	4	<0.0001	<0.0001	0
Maldon	quarterly	4	<0.0001	<0.0001	0
Malmsbury	quarterly	4	<0.0001	<0.0001	0
Newstead	quarterly	4	<0.0001	<0.0001	0
Pyramid Hill	quarterly	4	<0.0001	<0.0001	0
Raywood	quarterly	4	<0.0001	<0.0001	0
Rochester	quarterly	4	<0.0001	<0.0001	0
Sebastian	quarterly	4	<0.0001	<0.0001	0
Serpentine	quarterly	4	<0.0001	<0.0001	0
Strathfieldsaye	quarterly	4	<0.0001	<0.0001	0
Taradale - Elphinstone	quarterly	4	<0.0001	<0.0001	0
Tarnagulla	quarterly	4	<0.0001	<0.0001	0
Tooborac	quarterly	4	<0.0001	<0.0001	0
Trentham	quarterly	4	<0.0001	<0.0001	0
Tylden	quarterly	4	<0.0001	<0.0001	0
Wedderburn	quarterly	4	<0.0001	<0.0001	0

Nitrate – Customer tap sites 2024/25

Table 38: Nitrate results for customer tap sites (Water quality standard – ADWG health-based guideline value: 50 mg/L)

Water sampling locality	Sampling frequency	Number of samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met
Axedale ²	quarterly	4	0.9	0.7	0
Bealiba ¹	fortnightly	29	0.4	0.2	0
Bendigo (Northern) ^{1&3}	fortnightly	21	0.6	0.3	0
Bendigo (Southern) ^{1&3}	fortnightly	21	0.6	0.3	0
Bendigo (Spring Gully) ^{1&3}	fortnightly	21	0.3	0.2	0
Big Hill ^{1&3}	fortnightly	23	0.7	0.3	0
Boort ²	quarterly	4	0.2	0.1	0
Bridgewater-Inglewood ¹	fortnightly	29	0.4	0.1	0
Castlemaine ²	quarterly	4	0.2	0.1	0
Cohuna ²	quarterly	4	0.0	0.0	0
Dunolly ¹	fortnightly	27	0.3	0.2	0
Echuca ²	quarterly	4	0.1	0.0	0
Elmore ²	quarterly	4	1.5	1.4	0
Epsom – Huntly ^{1&3}	fortnightly	21	1.0	0.3	0
Fryerstown ²	quarterly	4	0.2	0.1	0
Goornong ²	quarterly	4	0.1	0.0	0
Guildford ²	quarterly	4	0.2	0.1	0
Gunbower ²	quarterly	4	0.1	0.1	0
Harcourt ²	quarterly	4	0.2	0.1	0
Heathcote ¹	fortnightly	28	0.4	0.2	0
Junortoun ^{1&3}	fortnightly	23	0.8	0.4	0
Korong Vale ¹	fortnightly	29	0.8	0.2	0
Kyneton ²	quarterly	4	0.2	0.2	0
Laanecoorie ¹	fortnightly	29	0.6	0.2	0
Leitchville ²	quarterly	4	0.0	0.0	0
Lockington ²	Quarterly	4	0.1	0.0	0
Maiden Gully – Marong ^{1&3}	fortnightly	23	0.6	0.3	0
Maldon ²	quarterly	4	0.2	0.1	0
Malmsbury ²	quarterly	4	0.2	0.2	0
Newstead ²	quarterly	4	0.2	0.1	0
Pyramid Hill ²	quarterly	4	0.0	0.0	0
Raywood ²	quarterly	4	0.8	0.6	0
Rochester ²	quarterly	4	0.2	0.1	0
Sebastian ²	quarterly	4	0.8	0.6	0
Serpentine ²	quarterly	4	0.1	0.1	0
Strathfieldsaye ^{1&3}	fortnightly	23	0.4	0.2	0
Taradale – Elphinstone ²	quarterly	4	0.1	0.1	0
Tarnagulla ¹	fortnightly	28	0.6	0.2	0
Tooborac ²	quarterly	4	0.5	0.4	0
Trentham ²	quarterly	4	0.8	0.5	0
Tylden ²	quarterly	4	0.2	0.2	0
Wedderburn ¹	fortnightly	28	0.6	0.1	0

Note:

- 1 Chloraminated systems are sampled fortnightly, to assist in monitoring for nitrification.
- 2 Chlorinated systems are sampled quarterly.
- 3 Sampling on-hold during free chlorination project.

Selenium – Customer tap sites 2024/25

Table 39: Selenium results for customer tap sites (Water quality standard - ADWG health-based guideline value: 0.01 mg/L)

Water sampling locality	Sampling frequency	Number of samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met
Axedale	quarterly	4	<0.001	<0.001	0
Bealiba	quarterly	4	<0.001	<0.001	0
Bendigo (Northern)	quarterly	4	<0.001	<0.001	0
Bendigo (Southern)	quarterly	4	<0.001	<0.001	0
Bendigo (Spring Gully)	quarterly	4	<0.001	<0.001	0
Big Hill	quarterly	4	<0.001	<0.001	0
Boort	quarterly	4	<0.001	<0.001	0
Bridgewater - Inglewood	quarterly	4	<0.001	<0.001	0
Castlemaine	quarterly	4	<0.001	<0.001	0
Cohuna	quarterly	4	<0.001	<0.001	0
Dunolly	quarterly	4	<0.001	<0.001	0
Echuca	quarterly	4	<0.001	<0.001	0
Elmore	quarterly	4	<0.001	<0.001	0
Epsom - Huntly	quarterly	4	<0.001	<0.001	0
Fryerstown	quarterly	4	<0.001	<0.001	0
Goornong	quarterly	4	<0.001	<0.001	0
Guildford	quarterly	4	<0.001	<0.001	0
Gunbower	quarterly	4	<0.001	<0.001	0
Harcourt	quarterly	4	<0.001	<0.001	0
Heathcote	quarterly	4	<0.001	<0.001	0
Junortoun	quarterly	4	<0.001	<0.001	0
Korong Vale	quarterly	4	<0.001	<0.001	0
Kyneton	quarterly	4	<0.001	<0.001	0
Laanecoorie	quarterly	4	<0.001	<0.001	0
Leitchville	quarterly	4	<0.001	<0.001	0
Lockington	quarterly	4	<0.001	<0.001	0
Maiden Gully - Marong	quarterly	4	<0.001	<0.001	0
Maldon	quarterly	4	<0.001	<0.001	0
Malmsbury	quarterly	4	<0.001	<0.001	0
Newstead	quarterly	4	<0.001	<0.001	0
Pyramid Hill	quarterly	4	<0.001	<0.001	0
Raywood	quarterly	4	<0.001	<0.001	0
Rochester	quarterly	4	<0.001	<0.001	0
Sebastian	quarterly	4	<0.001	<0.001	0
Serpentine	quarterly	4	<0.001	<0.001	0
Strathfieldsaye	quarterly	4	<0.001	<0.001	0
Taradale - Elphinstone	quarterly	4	<0.001	<0.001	0
Tarnagulla	quarterly	4	<0.001	<0.001	0
Tooborac	quarterly	4	<0.001	<0.001	0
Trentham	quarterly	4	<0.001	<0.001	0
Tylden	quarterly	4	<0.001	<0.001	0
Wedderburn	quarterly	4	<0.001	<0.001	0

Sulphate – Customer tap sites 2024/25

Table 40: Sulphate results for customer tap sites (Water quality standard – ADWG health-based guideline value 500 mg/L)

Water sampling locality	Sampling frequency	Number of samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met
Axedale	quarterly	4	8	5	0
Bealiba	quarterly	4	71	41	0
Bendigo (Northern)	quarterly	4	8	5	0
Bendigo (Southern)	quarterly	4	8	5	0
Bendigo (Spring Gully)	quarterly	4	8	5	0
Big Hill	quarterly	4	8	4	0
Boort	quarterly	4	57	51	0
Bridgewater - Inglewood	quarterly	4	3	3	0
Castlemaine	quarterly	4	4	4	0
Cohuna	quarterly	4	27	24	0
Dunolly	quarterly	4	71	30	0
Echuca	quarterly	4	28	24	0
Elmore	quarterly	4	9	8	0
Epsom - Huntly	quarterly	4	87	26	0
Fryerstown	quarterly	4	4	3	0
Goornong	quarterly	4	61	60	0
Guildford	quarterly	4	4	3	0
Gunbower	quarterly	4	6	3	0
Harcourt	quarterly	4	5	5	0
Heathcote	quarterly	4	58	52	0
Junortoun	quarterly	4	8	5	0
Korong Vale	quarterly	4	12	11	0
Kyneton	quarterly	4	3	3	0
Laanecoorie	quarterly	4	69	28	0
Leitchville	quarterly	4	24	20	0
Lockington	quarterly	4	3	2	0
Maiden Gully - Marong	quarterly	4	8	5	0
Maldon	quarterly	4	5	4	0
Malmsbury	quarterly	4	3	3	0
Newstead	quarterly	4	4	3	0
Pyramid Hill	quarterly	4	33	29	0
Raywood	quarterly	4	8	4	0
Rochester	quarterly	4	22	20	0
Sebastian	quarterly	4	8	5	0
Serpentine	quarterly	4	24	22	0
Strathfieldsaye	quarterly	4	9	5	0
Taradale - Elphinstone	quarterly	4	5	4	0
Tarnagulla	quarterly	4	68	29	0
Tooborac	quarterly	4	64	58	0
Trentham	quarterly	4	1	1	0
Tylden	quarterly	4	3	3	0
Wedderburn	quarterly	4	11	11	0

Manganese – Customer tap sites 2024/25

Table 41: Manganese results for customer tap sites (Water quality standard - ADWG health-based guideline value: 0.5 mg/L)

Water sampling locality	Sampling frequency	Number of samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met
Axedale	monthly	12	0.002	0.001	0
Bealiba	monthly	12	0.007	0.003	0
Bendigo (Northern)	monthly	12	0.002	0.002	0
Bendigo (Southern)	monthly	12	0.005	0.002	0
Bendigo (Spring Gully)	monthly	12	0.002	0.002	0
Big Hill	monthly	12	0.004	0.002	0
Boort	monthly	12	0.003	0.001	0
Bridgewater - Inglewood	monthly	12	0.004	0.002	0
Castlemaine	monthly	12	0.004	0.001	0
Cohuna	monthly	12	0.010	0.003	0
Dunolly	monthly	12	0.018	0.004	0
Echuca	monthly	12	0.002	0.001	0
Elmore	monthly	12	<0.001	<0.001	0
Epsom - Huntly	monthly	12	0.003	0.002	0
Fryerstown	monthly	12	0.008	0.002	0
Goornong	monthly	12	0.002	0.001	0
Guildford	monthly	13	0.006	0.001	0
Gunbower	monthly	12	<0.001	<0.001	0
Harcourt	monthly	12	0.006	0.001	0
Heathcote	monthly	12	0.009	0.003	0
Junortoun	monthly	12	0.004	0.002	0
Korong Vale	monthly	12	0.003	0.001	0
Kyneton	monthly	13	0.001	0.001	0
Laanecoorie	monthly	13	0.008	0.005	0
Leitchville	monthly	12	0.004	0.001	0
Lockington	monthly	12	<0.001	<0.001	0
Maiden Gully - Marong	monthly	12	0.002	0.002	0
Maldon	monthly	12	0.006	0.001	0
Malmsbury	monthly	12	0.003	0.001	0
Newstead	monthly	12	0.005	0.001	0
Pyramid Hill	monthly	12	0.003	0.001	0
Raywood	monthly	12	<0.001	<0.001	0
Rochester	monthly	12	0.002	0.001	0
Sebastian	monthly	12	0.001	0.001	0
Serpentine	monthly	12	0.008	0.003	0
Strathfieldsaye	monthly	12	0.002	0.002	0
Taradale - Elphinstone	monthly	12	0.006	0.001	0
Tarnagulla	monthly	12	0.008	0.003	0
Tooborac	monthly	12	0.005	0.002	0
Trentham	monthly	12	0.007	0.001	0
Tylden	monthly	12	0.001	0.001	0
Wedderburn	monthly	12	<0.001	<0.001	0

Copper – Customer tap sites 2024/25

Table 42: Copper results for customer tap sites (Water quality standard – ADWG health-based guideline value: 2.0 mg/L)

Water sampling locality	Sampling frequency	Number of samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met
Axedale	monthly	12	0.01	0.01	0
Bealiba	monthly	12	0.00	0.00	0
Bendigo (Northern)	monthly	12	0.03	0.01	0
Bendigo (Southern)	monthly	12	0.02	0.01	0
Bendigo (Spring Gully)	monthly	12	0.04	0.01	0
Big Hill	monthly	12	0.06	0.01	0
Boort	monthly	12	0.00	0.00	0
Bridgewater - Inglewood	monthly	12	0.01	0.00	0
Castlemaine	monthly	12	0.07	0.03	0
Cohuna	monthly	12	0.01	0.00	0
Dunolly	monthly	12	0.01	0.00	0
Echuca	monthly	12	0.00	0.00	0
Elmore	monthly	12	0.11	0.01	0
Epsom - Huntly	monthly	12	0.09	0.02	0
Fryerstown	monthly	12	0.10	0.03	0
Goornong	monthly	12	0.00	0.00	0
Guildford	monthly	13	0.04	0.02	0
Gunbower	monthly	12	0.02	0.00	0
Harcourt	monthly	12	0.05	0.02	0
Heathcote	monthly	12	0.01	0.00	0
Junortoun	monthly	12	0.02	0.01	0
Korong Vale	monthly	12	0.00	0.00	0
Kyneton	monthly	13	0.02	0.01	0
Laanecoorie	monthly	13	0.00	0.00	0
Leitchville	monthly	12	0.00	0.00	0
Lockington	monthly	12	0.00	0.00	0
Maiden Gully - Marong	monthly	12	0.03	0.01	0
Maldon	monthly	12	0.05	0.03	0
Malmsbury	monthly	12	0.01	0.01	0
Newstead	monthly	12	0.03	0.02	0
Pyramid Hill	monthly	12	0.02	0.01	0
Raywood	monthly	12	0.02	0.01	0
Rochester	monthly	12	0.02	0.01	0
Sebastian	monthly	12	0.04	0.02	0
Serpentine	monthly	12	0.01	0.01	0
Strathfieldsaye	monthly	12	0.01	0.01	0
Taradale - Elphinstone	monthly	12	0.07	0.02	0
Tarnagulla	monthly	12	0.01	0.00	0
Tooborac	monthly	12	0.02	0.01	0
Trentham	monthly	12	0.05	0.01	0
Tylden	monthly	12	0.02	0.01	0
Wedderburn	monthly	12	0.00	0.00	0

Lead – Customer tap sites 2024/25

Table 43: Lead results for customer tap sites (Water quality standard – ADWG health-based guideline value: 0.01 mg/L)

Water sampling locality	Sampling frequency	Number of samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met
Axedale	monthly	12	<0.001	<0.001	0
Bealiba	monthly	12	<0.001	<0.001	0
Bendigo (Northern)	monthly	12	<0.001	<0.001	0
Bendigo (Southern)	monthly	12	0.0020	0.0006	0
Bendigo (Spring Gully)	monthly	12	<0.001	<0.001	0
Big Hill	monthly	12	0.0010	0.0005	0
Boort	monthly	12	<0.001	<0.001	0
Bridgewater - Inglewood	monthly	12	<0.001	<0.001	0
Castlemaine	monthly	12	0.0010	0.0005	0
Cohuna	monthly	12	<0.001	<0.001	0
Dunolly	monthly	12	<0.001	<0.001	0
Echuca	monthly	12	<0.001	<0.001	0
Elmore	monthly	12	0.0020	0.0006	0
Epsom - Huntly	monthly	12	<0.001	<0.001	0
Fryerstown	monthly	12	0.0020	0.0007	0
Goornong	monthly	12	<0.001	<0.001	0
Guildford	monthly	12	0.0040	0.0008	0
Gunbower	monthly	12	0.0020	0.0006	0
Harcourt	monthly	12	<0.001	<0.001	0
Heathcote	monthly	12	<0.001	<0.001	0
Junortoun	monthly	12	0.0030	0.0007	0
Korong Vale	monthly	12	<0.001	<0.001	0
Kyneton	monthly	12	0.0050	0.0009	0
Laanecoorie	monthly	12	<0.001	<0.001	0
Leitchville	monthly	12	<0.001	<0.001	0
Lockington	monthly	12	<0.001	<0.001	0
Maiden Gully - Marong	monthly	12	<0.001	<0.001	0
Maldon	monthly	12	<0.001	<0.001	0
Malmsbury	monthly	12	<0.001	<0.001	0
Newstead	monthly	12	<0.001	<0.001	0
Pyramid Hill	monthly	12	<0.001	<0.001	0
Raywood	monthly	12	<0.001	<0.001	0
Rochester	monthly	12	0.0010	0.0005	0
Sebastian	monthly	12	0.0010	0.0005	0
Serpentine	monthly	12	<0.001	<0.001	0
Strathfieldsaye	monthly	12	<0.001	<0.001	0
Taradale - Elphinstone	monthly	12	0.0010	0.0005	0
Tarnagulla	monthly	12	0.0010	0.0005	0
Tooborac	monthly	12	<0.001	<0.001	0
Trentham	monthly	12	<0.001	<0.001	0
Tylden	monthly	12	<0.001	<0.001	0
Wedderburn	monthly	12	<0.001	<0.001	0

Nickel – Customer tap sites 2024/25

Table 44: Nickel results for customer tap sites (Water quality standard – ADWG health-based guideline value: 0.02 mg/L)

Water sampling locality	Sampling frequency	Number of samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met
Axedale	monthly	12	0.00	0.00	0
Bealiba	monthly	12	0.00	0.00	0
Bendigo (Northern)	monthly	12	0.00	0.00	0
Bendigo (Southern)	monthly	12	0.00	0.00	0
Bendigo (Spring Gully)	monthly	12	0.00	0.00	0
Big Hill	monthly	12	0.00	0.00	0
Boort	monthly	12	<0.001	<0.001	0
Bridgewater - Inglewood	monthly	12	<0.001	<0.001	0
Castlemaine	monthly	12	<0.001	<0.001	0
Cohuna	monthly	12	<0.001	<0.001	0
Dunolly	monthly	12	0.00	0.00	0
Echuca	monthly	12	<0.001	<0.001	0
Elmore	monthly	12	0.00	0.00	0
Epsom - Huntly	monthly	12	0.00	0.00	0
Fryerstown	monthly	12	0.00	0.00	0
Goornong	monthly	12	0.00	0.00	0
Guildford	monthly	12	<0.001	<0.001	0
Gunbower	monthly	12	<0.001	<0.001	0
Harcourt	monthly	12	<0.001	<0.001	0
Heathcote	monthly	12	0.00	0.00	0
Junortoun	monthly	12	0.00	0.00	0
Korong Vale	monthly	12	<0.001	<0.001	0
Kyneton	monthly	12	<0.001	<0.001	0
Laanecoorie	monthly	12	0.00	0.00	0
Leitchville	monthly	12	<0.001	<0.001	0
Lockington	monthly	12	<0.001	<0.001	0
Maiden Gully - Marong	monthly	12	0.00	0.00	0
Maldon	monthly	12	<0.001	<0.001	0
Malmsbury	monthly	12	<0.001	<0.001	0
Newstead	monthly	12	<0.001	<0.001	0
Pyramid Hill	monthly	12	<0.001	<0.001	0
Raywood	monthly	12	0.00	0.00	0
Rochester	monthly	12	<0.001	<0.001	0
Sebastian	monthly	12	0.00	0.00	0
Serpentine	monthly	12	<0.001	<0.001	0
Strathfieldsaye	monthly	12	0.00	0.00	0
Taradale - Elphinstone	monthly	12	<0.001	<0.001	0
Tarnagulla	monthly	12	0.00	0.00	0
Tooborac	monthly	12	0.00	0.00	0
Trentham	monthly	12	<0.001	<0.001	0
Tylden	monthly	12	<0.001	<0.001	0
Wedderburn	monthly	12	<0.001	<0.001	0

Alpha Count – Customer tap sites 2024/25

Table 45: Alpha count results for customer tap sites (Water quality standard – ADWG health-based guideline value: 0.5 bq/L)

Water sampling locality	Sampling frequency	Number of samples	Value (bq/L)	Number of samples where standard was not met
Axedale	annual	1	<0.05	0
Bealiba	annual	1	<0.05	0
Bendigo (Northern)	annual	1	<0.05	0
Bendigo (Southern)	annual	1	<0.05	0
Bendigo (Spring Gully)	annual	1	<0.05	0
Big Hill	annual	1	<0.05	0
Boort	annual	1	<0.05	0
Bridgewater - Inglewood	annual	1	<0.05	0
Castlemaine	annual	1	<0.05	0
Cohuna	annual	1	<0.05	0
Dunolly	annual	1	<0.05	0
Echuca	annual	1	<0.05	0
Elmore	annual	1	0.07	0
Epsom - Huntly	annual	1	<0.05	0
Fryerstown	annual	1	<0.05	0
Goornong	annual	1	<0.05	0
Guildford	annual	1	<0.05	0
Gunbower	annual	1	<0.05	0
Harcourt	annual	1	<0.05	0
Heathcote	annual	1	<0.05	0
Junortoun	annual	1	<0.05	0
Korong Vale	annual	1	<0.05	0
Kyneton	annual	1	<0.05	0
Laanecoorie	annual	1	<0.05	0
Leitchville	annual	1	<0.05	0
Lockington	annual	1	<0.05	0
Maiden Gully - Marong	annual	1	<0.05	0
Maldon	annual	1	<0.05	0
Malmsbury	annual	1	<0.05	0
Newstead	annual	1	<0.05	0
Pyramid Hill	annual	1	<0.05	0
Raywood	annual	1	<0.05	0
Rochester	annual	1	<0.05	0
Sebastian	annual	1	<0.05	0
Serpentine	annual	1	<0.05	0
Strathfieldsaye	annual	1	<0.05	0
Taradale - Elphinstone	annual	1	<0.05	0
Tarnagulla	annual	1	<0.05	0
Tooborac	annual	1	<0.05	0
Trentham	annual	1	<0.05	0
Tylden	annual	1	<0.05	0
Wedderburn	annual	1	<0.05	0

Beta Count – Customer tap sites 2024/25

Table 46: Beta count results for customer tap sites (Water quality standard – ADWG health-based guideline value: 0.5 bq/L)

Water sampling locality	Sampling frequency	Number of samples	Value (bq/L)	Number of samples where standard was not met
Axedale	annual	1	<0.1	0
Bealiba	annual	1	<0.10	0
Bendigo (Northern)	annual	1	<0.10	0
Bendigo (Southern)	annual	1	<0.1	0
Bendigo (Spring Gully)	annual	1	<0.1	0
Big Hill	annual	1	<0.1	0
Boort	annual	1	<0.1	0
Bridgewater - Inglewood	annual	1	<0.10	0
Castlemaine	annual	1	<0.1	0
Cohuna	annual	1	<0.10	0
Dunolly	annual	1	<0.10	0
Echuca	annual	1	<0.1	0
Elmore	annual	1	<0.1	0
Epsom - Huntly	annual	1	<0.1	0
Fryerstown	annual	1	<0.10	0
Goornong	annual	1	<0.1	0
Guildford	annual	1	<0.1	0
Gunbower	annual	1	<0.1	0
Harcourt	annual	1	<0.10	0
Heathcote	annual	1	<0.1	0
Junortoun	annual	1	<0.1	0
Korong Vale	annual	1	<0.1	0
Kyneton	annual	1	<0.10	0
Laanecoorie	annual	1	<0.1	0
Leitchville	annual	1	<0.10	0
Lockington	annual	1	<0.10	0
Maiden Gully - Marong	annual	1	<0.10	0
Maldon	annual	1	<0.10	0
Malmsbury	annual	1	<0.1	0
Newstead	annual	1	<0.10	0
Pyramid Hill	annual	1	<0.10	0
Raywood	annual	1	<0.1	0
Rochester	annual	1	<0.1	0
Sebastian	annual	1	<0.1	0
Serpentine	annual	1	<0.1	0
Strathfieldsaye	annual	1	<0.1	0
Taradale - Elphinstone	annual	1	<0.1	0
Tarnagulla	annual	1	<0.10	0
Tooborac	annual	1	<0.1	0
Trentham	annual	1	<0.1	0
Tylden	annual	1	<0.1	0
Wedderburn	annual	1	<0.1	0

Nitrite – Customer tap sites 2024/25

Table 47: Nitrite results for customer tap sites (Water quality standard – ADWG health-based guideline value: 3.0 mg/L)

Water sampling locality	Sampling frequency	Number of samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met
Axedale	n/a	n/a	n/a	n/a	n/a
Bealiba	fortnightly	26	0.05	0.02	0
Bendigo (Northern) ¹	fortnightly	19	0.28	0.07	0
Bendigo (Southern) ¹	fortnightly	19	0.15	0.05	0
Bendigo (Spring Gully) ¹	fortnightly	19	0.18	0.05	0
Big Hill ¹	fortnightly	20	0.26	0.06	0
Boort	n/a	n/a	n/a	n/a	n/a
Bridgewater - Inglewood	fortnightly	26	0.03	0.01	0
Castlemaine	n/a	n/a	n/a	n/a	n/a
Cohuna	n/a	n/a	n/a	n/a	n/a
Dunolly	fortnightly	26	0.09	0.02	0
Echuca	n/a	n/a	n/a	n/a	n/a
Elmore	n/a	n/a	n/a	n/a	n/a
Epsom - Huntly ¹	fortnightly	19	0.32	0.14	0
Fryerstown	n/a	n/a	n/a	n/a	n/a
Goornong	n/a	n/a	n/a	n/a	n/a
Guildford	n/a	n/a	n/a	n/a	n/a
Gunbower	n/a	n/a	n/a	n/a	n/a
Harcourt	n/a	n/a	n/a	n/a	n/a
Heathcote	fortnightly	26	0.06	0.01	0
Junortoun ¹	fortnightly	20	0.39	0.21	0
Korong Vale	fortnightly	26	0.02	0.01	0
Kyneton	n/a	n/a	n/a	n/a	n/a
Laanecoorie	fortnightly	26	0.08	0.02	0
Leitchville	n/a	n/a	n/a	n/a	n/a
Lockington	n/a	n/a	n/a	n/a	n/a
Maiden Gully - Marong ¹	fortnightly	19	0.23	0.06	0
Maldon	n/a	n/a	n/a	n/a	n/a
Malmsbury	n/a	n/a	n/a	n/a	n/a
Newstead	n/a	n/a	n/a	n/a	n/a
Pyramid Hill	n/a	n/a	n/a	n/a	n/a
Raywood	n/a	n/a	n/a	n/a	n/a
Rochester	n/a	n/a	n/a	n/a	n/a
Sebastian	n/a	n/a	n/a	n/a	n/a
Serpentine	n/a	n/a	n/a	n/a	n/a
Strathfieldsaye ¹	fortnightly	20	0.20	0.05	0
Taradale - Elphinstone	n/a	n/a	n/a	n/a	n/a
Tarnagulla	fortnightly	26	0.06	0.02	0
Tooborac	n/a	n/a	n/a	n/a	n/a
Trentham	n/a	n/a	n/a	n/a	n/a
Tylden	n/a	n/a	n/a	n/a	n/a
Wedderburn	fortnightly	26	0.08	0.03	0

Note:

1 Sampling on-hold during free chlorination project.

NDMA – Customer tap sites 2024/25

Table 48: NDMA results for customer tap sites (Water quality standard – ADWG health-based guideline value: 0.1 ug/L)

Water sampling locality	Sampling frequency	Number of samples	Maximum (ug/L)	Average (ug/L)	Number of samples where standard was not met
Axedale	quarterly	4	<0.003	<0.003	0
Bealiba	quarterly	4	0.0160	0.0098	0
Bendigo (Northern) ¹	quarterly	3	<0.003	<0.003	0
Bendigo (Southern) ¹	quarterly	3	<0.003	<0.003	0
Bendigo (Spring Gully) ¹	quarterly	3	<0.003	<0.003	0
Big Hill ¹	quarterly	3	<0.003	<0.003	0
Boort	n/a	n/a	n/a	n/a	n/a
Bridgewater – Inglewood	quarterly	4	0.0910	0.0433	0
Castlemaine	n/a	n/a	n/a	n/a	n/a
Cohuna	n/a	n/a	n/a	n/a	n/a
Dunolly	quarterly	4	0.0060	0.0050	0
Echuca	n/a	n/a	n/a	n/a	n/a
Elmore	n/a	n/a	n/a	n/a	n/a
Epsom – Huntly ¹	quarterly	3	<0.003	<0.003	0
Fryerstown	n/a	n/a	n/a	n/a	n/a
Goornong	n/a	n/a	n/a	n/a	n/a
Guildford	n/a	n/a	n/a	n/a	n/a
Gunbower	n/a	n/a	n/a	n/a	n/a
Harcourt	n/a	n/a	n/a	n/a	n/a
Heathcote	quarterly	4	0.0070	0.0033	0
Junortoun ¹	quarterly	3	<0.003	<0.003	0
Korong Vale	quarterly	4	0.0040	0.0025	0
Kyneton	n/a	n/a	n/a	n/a	n/a
Laanecoorie	quarterly	4	0.0100	0.0070	0
Leitchville	n/a	n/a	n/a	n/a	n/a
Lockington	n/a	n/a	n/a	n/a	n/a
Maiden Gully – Marong ¹	quarterly	3	<0.003	<0.003	0
Maldon	n/a	n/a	n/a	n/a	n/a
Malmsbury	n/a	n/a	n/a	n/a	n/a
Newstead	n/a	n/a	n/a	n/a	n/a
Pyramid Hill	n/a	n/a	n/a	n/a	n/a
Raywood	quarterly	4	<0.003	<0.003	0
Rochester	n/a	n/a	n/a	n/a	n/a
Sebastian	quarterly	4	<0.003	<0.003	0
Serpentine	n/a	n/a	n/a	n/a	n/a
Strathfieldsaye ¹	quarterly	3	<0.003	<0.003	0
Taradale – Elphinstone	n/a	n/a	n/a	n/a	n/a
Tarnagulla	quarterly	4	0.0080	0.0060	0
Tooborac	quarterly	4	0.0110	0.0071	0
Trentham	n/a	n/a	n/a	n/a	n/a
Tylden	n/a	n/a	n/a	n/a	n/a
Wedderburn	quarterly	4	0.0030	0.0019	0

Note:

Localities where chloramination is not part of the treatment process have not had NDMA included in their monitoring program.

1 Sampling on-hold during free chlorination project.

pH – Customer tap sites 2024/25

Table 49: pH results for customer tap sites (operating range: 6.5 – 8.5 pH Units)

Water sampling locality	Sampling frequency	Number of samples	Minimum	Maximum
Axedale	monthly	12	7.7	8.1
Bealiba ¹	monthly	12	8.0	9.5
Bendigo (Northern)	monthly	12	7.4	8.2
Bendigo (Southern)	monthly	12	7.3	8.2
Bendigo (Spring Gully)	monthly	12	7.3	8.2
Big Hill	monthly	12	7.4	8.2
Boort	monthly	12	7.3	8.2
Bridgewater - Inglewood ¹	monthly	12	7.4	9.5
Castlemaine	monthly	12	7.3	7.9
Cohuna	monthly	12	7.3	7.6
Dunolly ¹	monthly	12	8.3	9.5
Echuca	monthly	12	7.2	7.9
Elmore	monthly	12	7.3	8.2
Epsom - Huntly	monthly	12	7.8	8.2
Fryerstown	monthly	12	7.3	8.0
Goornong ¹	monthly	12	7.3	8.7
Guildford	monthly	13	7.4	8.0
Gunbower	monthly	12	7.5	8.0
Harcourt	monthly	12	7.6	7.9
Heathcote	monthly	12	7.8	8.1
Junortoun	monthly	12	7.5	8.1
Korong Vale ¹	monthly	12	7.4	9.0
Kyneton	monthly	13	7.4	8.1
Laanecoorie	monthly	13	7.6	8.2
Leitchville	monthly	12	7.5	7.9
Lockington ¹	monthly	12	7.9	8.6
Maiden Gully - Marong	monthly	12	7.3	8.3
Maldon	monthly	12	7.6	7.9
Malmsbury	monthly	12	7.4	8.3
Newstead	monthly	12	7.4	7.9
Pyramid Hill	monthly	12	7.2	7.6
Raywood	monthly	12	7.3	7.8
Rochester ¹	monthly	12	7.3	9.2
Sebastian ¹	monthly	12	7.5	8.7
Serpentine ¹	monthly	12	7.3	8.8
Strathfieldsaye	monthly	12	7.4	8.1
Taradale - Elphinstone	monthly	12	7.5	7.9
Tarnagulla ¹	monthly	12	8.0	9.6
Tooborac ¹	monthly	12	7.7	9.0
Trentham	monthly	12	7.8	8.2
Tylden	monthly	12	7.4	8.0
Wedderburn ¹	monthly	12	7.7	9.6

Note:

1 Refer to section 4.3.1.1 for details on exceedances.

Aluminium – Customer tap sites 2024/25

Table 50: Aluminium (soluble) results for customer tap sites (ADWG aesthetic guideline value: 0.2 mg/L)

Water sampling locality	Sampling frequency	Number of samples	Maximum (mg/L)	Average (mg/L)	Number of samples where standard was not met
Axedale	quarterly	4	0.03	0.03	0
Bealiba	quarterly	4	0.05	0.03	0
Bendigo (Northern)	quarterly	4	0.02	0.02	0
Bendigo (Southern)	quarterly	4	0.02	0.02	0
Bendigo (Spring Gully)	quarterly	4	0.02	0.02	0
Big Hill	quarterly	4	0.02	0.02	0
Boort	quarterly	4	0.05	0.03	0
Bridgewater - Inglewood	quarterly	4	0.05	0.04	0
Castlemaine	quarterly	4	0.02	0.01	0
Cohuna	quarterly	4	0.02	0.02	0
Dunolly	quarterly	4	0.06	0.04	0
Echuca	quarterly	4	0.06	0.04	0
Elmore	n/a	n/a	n/a	n/a	n/a
Epsom - Huntly	quarterly	4	0.04	0.03	0
Fryerstown	quarterly	4	0.02	0.02	0
Goornong	quarterly	4	0.08	0.06	0
Guildford	quarterly	4	0.02	0.02	0
Gunbower	quarterly	4	0.09	0.06	0
Harcourt	quarterly	4	0.03	0.02	0
Heathcote	quarterly	4	0.02	0.02	0
Junortoun	quarterly	4	0.04	0.03	0
Korong Vale	quarterly	4	0.03	0.02	0
Kyneton	quarterly	4	0.03	0.03	0
Laanecoorie	quarterly	4	0.02	0.02	0
Leitchville	quarterly	4	0.02	0.01	0
Lockington	quarterly	4	0.15	0.09	0
Maiden Gully - Marong	quarterly	4	0.04	0.03	0
Maldon	quarterly	4	0.02	0.02	0
Malmsbury	quarterly	4	0.03	0.03	0
Newstead	quarterly	4	0.02	0.02	0
Pyramid Hill	quarterly	4	0.03	0.02	0
Raywood	quarterly	4	0.04	0.03	0
Rochester	quarterly	4	<0.01	<0.01	0
Sebastian	quarterly	4	0.04	0.03	0
Serpentine	quarterly	4	0.01	0.01	0
Strathfieldsaye	quarterly	4	0.03	0.03	0
Taradale - Elphinstone	quarterly	4	0.02	0.02	0
Tarnagulla	quarterly	4	0.02	0.01	0
Tooborac	quarterly	4	0.02	0.02	0
Trentham	n/a	n/a	n/a	n/a	n/a
Tylden	quarterly	4	0.03	0.02	0
Wedderburn	quarterly	4	0.03	0.03	0

Note:

- 1 An aluminium based product is not used for coagulation at Elmore or Trentham, and therefore aluminium is not deemed to be a significant risk in this water supply.

Hardness – Customer tap sites 2024/25

To minimise undesirable build-up of scale in hot water systems, total hardness (as calcium carbonate) in drinking water should not exceed 200 mg/L.

Table 51: Hardness results for customer tap sites (ADWG aesthetic guideline limit: 200mg/L)

Water sampling locality	Sampling frequency	Number of samples	Maximum (mg/L)	Average (mg/L)	Number of samples where guideline was not met
Axedale	quarterly	4	99	78	0
Bealiba	quarterly	4	160	86	0
Bendigo (Northern)	quarterly	4	110	82	0
Bendigo (Southern)	quarterly	4	100	81	0
Bendigo (Spring Gully)	quarterly	4	99	80	0
Big Hill	quarterly	4	98	79	0
Boort	quarterly	4	120	108	0
Bridgewater - Inglewood	quarterly	4	21	18	0
Castlemaine	quarterly	4	67	62	0
Cohuna	quarterly	4	25	22	0
Dunolly	quarterly	4	130	49	0
Echuca	quarterly	4	23	17	0
Elmore	quarterly	4	120	111	0
Epsom - Huntly	quarterly	4	100	80	0
Fryerstown	quarterly	4	67	62	0
Goornong	quarterly	4	120	101	0
Guildford	quarterly	4	69	63	0
Gunbower	quarterly	4	30	24	0
Harcourt	quarterly	4	71	68	0
Heathcote	quarterly	4	110	95	0
Junortoun	quarterly	4	110	79	0
Korong Vale	quarterly	4	16	14	0
Kyneton	quarterly	4	67	61	0
Laanecoorie	quarterly	4	140	48	0
Leitchville	quarterly	4	28	23	0
Lockington	quarterly	4	31	26	0
Maiden Gully - Marong	quarterly	4	110	83	0
Maldon	quarterly	4	72	69	0
Malmsbury	quarterly	4	72	65	0
Newstead	quarterly	4	68	63	0
Pyramid Hill	quarterly	4	38	34	0
Raywood	quarterly	4	99	77	0
Rochester	quarterly	4	27	22	0
Sebastian	quarterly	4	110	81	0
Serpentine	quarterly	4	42	35	0
Strathfieldsaye	quarterly	4	110	81	0
Taradale - Elphinstone	quarterly	4	72	66	0
Tarnagulla	quarterly	4	140	55	0
Tooborac	quarterly	4	97	86	0
Trentham	quarterly	4	73	59	0
Tylden	quarterly	4	72	65	0
Wedderburn	quarterly	4	17	16	0

Iron – Customer tap sites 2024/25

The samples taken for analysis were obtained from the reticulation system. Iron levels may be higher at customers' internal taps, where galvanised iron pipes have been used in customers' plumbing.

Table 52: Iron results for customer tap sites (ADWG aesthetic guideline limit: 0.3 mg/L)

Water sampling locality	Sampling frequency	Number of samples	Maximum (mg/L)	Average (mg/L)	Number of samples where guideline was not met
Axedale	monthly	12	0.03	0.01	0
Bealiba	monthly	12	0.03	0.01	0
Bendigo (Northern)	monthly	12	0.01	0.01	0
Bendigo (Southern)	monthly	12	0.02	0.01	0
Bendigo (Spring Gully)	monthly	12	0.02	0.01	0
Big Hill	monthly	12	0.16	0.03	0
Boort	monthly	12	0.02	0.01	0
Bridgewater - Inglewood	monthly	12	0.02	0.01	0
Castlemaine	monthly	12	0.02	0.01	0
Cohuna	monthly	12	0.02	0.02	0
Dunolly	monthly	12	0.01	0.01	0
Echuca	monthly	12	0.01	0.01	0
Elmore	monthly	12	<0.01	<0.01	0
Epsom - Huntly	monthly	12	0.02	0.01	0
Fryerstown	monthly	12	0.07	0.03	0
Goornong	monthly	12	0.07	0.02	0
Guildford	monthly	12	0.02	0.01	0
Gunbower	monthly	12	0.01	0.01	0
Harcourt	monthly	12	0.02	0.01	0
Heathcote	monthly	12	0.04	0.02	0
Junortoun	monthly	12	0.05	0.02	0
Korong Vale	monthly	12	0.20	0.04	0
Kyneton	monthly	12	0.01	0.01	0
Laanecoorie	monthly	12	0.19	0.04	0
Leitchville	monthly	12	0.05	0.01	0
Lockington	monthly	12	0.02	0.01	0
Maiden Gully - Marong	monthly	12	0.01	0.01	0
Maldon	monthly	12	0.02	0.01	0
Malmsbury	monthly	12	0.02	0.01	0
Newstead	monthly	12	0.02	0.01	0
Pyramid Hill	monthly	12	0.02	0.01	0
Raywood	monthly	12	0.01	0.01	0
Rochester	monthly	12	0.04	0.01	0
Sebastian	monthly	12	0.01	0.01	0
Serpentine	monthly	12	0.05	0.03	0
Strathfieldsaye	monthly	12	0.02	0.01	0
Taradale - Elphinstone	monthly	12	0.01	0.01	0
Tarnagulla	monthly	12	0.03	0.01	0
Tooborac	monthly	12	0.05	0.02	0
Trentham	monthly	12	0.02	0.01	0
Tylden	monthly	12	0.02	0.01	0
Wedderburn	monthly	12	0.05	0.02	0

True Colour – Customer tap sites 2024/25

Based on aesthetic considerations, true colour in drinking water should not exceed 15 HU.

Table 53: True Colour results for customer tap sites (ADWG aesthetic guideline limit: 15 HU)

Water sampling locality	Sampling frequency	Number of samples ¹	Maximum (HU)	Average (HU)	Number of samples where guideline was not met
Axedale	monthly	12	<2	<2	0
Bealiba	monthly	12	4	1	0
Bendigo (Northern)	monthly	12	6	2	0
Bendigo (Southern)	monthly	12	6	2	0
Bendigo (Spring Gully)	monthly	12	6	1	0
Big Hill	monthly	12	6	2	0
Boort	monthly	12	2	1	0
Bridgewater - Inglewood	monthly	12	2	1	0
Castlemaine	monthly	12	<2	<2	0
Cohuna	monthly	12	<2	<2	0
Dunolly	monthly	12	4	1	0
Echuca	monthly	12	<2	<2	0
Elmore	monthly	12	<2	<2	0
Epsom - Huntly	monthly	12	4	1	0
Fryerstown	monthly	12	2	1	0
Goornong	monthly	12	<2	<2	0
Guildford	monthly	12	2	1	0
Gunbower	monthly	12	2	1	0
Harcourt	monthly	12	2	1	0
Heathcote	monthly	12	4	1	0
Junortoun	monthly	12	4	1	0
Korong Vale	monthly	12	<2	<2	0
Kyneton	monthly	12	<2	<2	0
Laanecoorie	monthly	12	6	2	0
Leitchville	monthly	12	4	1	0
Lockington	monthly	12	2	1	0
Maiden Gully - Marong	monthly	12	4	1	0
Maldon	monthly	12	<2	<2	0
Malmsbury	monthly	12	<2	<2	0
Newstead	monthly	12	2	1	0
Pyramid Hill	monthly	12	<2	<2	0
Raywood	monthly	12	2	1	0
Rochester	monthly	12	<2	<2	0
Sebastian	monthly	12	<2	<2	0
Serpentine	monthly	12	<2	<2	0
Strathfieldsaye	monthly	12	<2	<2	0
Taradale - Elphinstone	monthly	12	4	1	0
Tarnagulla	monthly	12	4	1	0
Tooborac	monthly	12	4	1	0
Trentham	monthly	12	<2	<2	0
Tylden	monthly	12	<2	<2	0
Wedderburn	monthly	12	6	2	0

Electrical Conductivity – Customer tap sites 2024/25

Based on taste, total dissolved solids in drinking water should not exceed 600 mg/L, equivalent to approximately 1,200 µS/cm in electrical conductivity.

Table 54: Electrical Conductivity results for customer tap sites (ADWG aesthetic guideline limit: 1,200 µS/cm)

Water sampling locality	Sampling frequency	Number of samples	Maximum (µS/cm)	Average (µS/cm)	Number of samples where guideline was not met
Axedale	monthly	12	500	335	0
Bealiba	monthly	12	890	362	0
Bendigo (Northern)	monthly	12	490	325	0
Bendigo (Southern)	monthly	12	490	322	0
Bendigo (Spring Gully)	monthly	12	490	320	0
Big Hill	monthly	12	490	320	0
Boort	monthly	12	650	527	0
Bridgewater - Inglewood	monthly	12	120	113	0
Castlemaine	monthly	12	250	235	0
Cohuna	monthly	12	170	133	0
Dunolly	monthly	12	820	303	0
Echuca	monthly	12	460	148	0
Elmore	monthly	12	780	712	0
Epsom - Huntly	monthly	12	490	328	0
Fryerstown	monthly	12	250	234	0
Goornong	monthly	12	600	553	0
Guildford	monthly	12	250	237	0
Gunbower	monthly	12	140	107	0
Harcourt	monthly	12	250	243	0
Heathcote	monthly	12	580	500	0
Junortoun	monthly	12	500	331	0
Korong Vale	monthly	12	130	113	0
Kyneton	monthly	12	230	215	0
Laanecoorie	monthly	12	820	295	0
Leitchville	monthly	12	170	128	0
Lockington	monthly	12	160	136	0
Maiden Gully - Marong	monthly	12	490	321	0
Maldon	monthly	12	260	249	0
Malmsbury	monthly	12	230	216	0
Newstead	monthly	12	250	238	0
Pyramid Hill	monthly	12	230	193	0
Raywood	monthly	12	500	330	0
Rochester	monthly	12	140	130	0
Sebastian	monthly	12	500	339	0
Serpentine	monthly	12	180	168	0
Strathfieldsaye	monthly	12	490	317	0
Taradale - Elphinstone	monthly	12	240	236	0
Tarnagulla	monthly	12	830	308	0
Tooborac	monthly	12	600	523	0
Trentham	monthly	12	210	167	0
Tylden	monthly	12	220	214	0
Wedderburn	monthly	12	130	115	0

Sodium – Customer tap sites 2024/25

Based on aesthetic considerations (taste), the concentration of sodium in drinking water should not exceed 180 mg/L.

Table 55: Sodium results for customer tap sites (ADWG aesthetic guideline limit: 180mg/L)

Water sampling locality	Sampling frequency	Number of Samples	Maximum (mg/L)	Average (mg/L)	Number of samples where guideline was not met
Axedale	quarterly	4	37	25	0
Bealiba	quarterly	4	150	66	0
Bendigo (Northern)	quarterly	4	39	23	0
Bendigo (Southern)	quarterly	4	36	23	0
Bendigo (Spring Gully)	quarterly	4	37	23	0
Big Hill	quarterly	4	36	23	0
Boort	quarterly	4	64	58	0
Bridgewater - Inglewood	quarterly	4	13	12	0
Castlemaine	quarterly	4	16	15	0
Cohuna	quarterly	4	18	16	0
Dunolly	quarterly	4	82	32	0
Echuca	quarterly	4	19	15	0
Elmore	quarterly	4	89	81	0
Epsom - Huntly	quarterly	4	35	24	0
Fryerstown	quarterly	4	16	15	0
Goornong	quarterly	4	59	53	0
Guildford	quarterly	4	16	15	0
Gunbower	quarterly	4	14	11	0
Harcourt	quarterly	4	19	17	0
Heathcote	quarterly	4	57	52	0
Junortoun	quarterly	4	38	23	0
Korong Vale	quarterly	4	15	14	0
Kyneton	quarterly	4	15	13	0
Laanecoorie	quarterly	4	83	33	0
Leitchville	quarterly	4	19	15	0
Lockington	quarterly	4	14	12	0
Maiden Gully - Marong	quarterly	4	41	26	0
Maldon	quarterly	4	18	17	0
Malmsbury	quarterly	4	15	14	0
Newstead	quarterly	4	16	15	0
Pyramid Hill	quarterly	4	21	20	0
Raywood	quarterly	4	38	24	0
Rochester	quarterly	4	14	13	0
Sebastian	quarterly	4	40	26	0
Serpentine	quarterly	4	19	17	0
Strathfieldsaye	quarterly	4	38	24	0
Taradale - Elphinstone	quarterly	4	18	17	0
Tarnagulla	quarterly	4	82	35	0
Tooborac	quarterly	4	58	54	0
Trentham	quarterly	4	14	11	0
Tylden	quarterly	4	15	14	0
Wedderburn	quarterly	4	15	14	0

Chloride – Customer tap sites 2024/25

Based on aesthetic consideration, the chloride concentration in drinking water should not exceed 250 mg/L.

Table 56: Chloride results for customer tap sites (ADWG aesthetic guideline limit: 250mg/L)

Water sampling locality	Sampling frequency	Number of samples	Maximum (mg/L)	Average (mg/L)	Number of samples where guideline was not met
Axedale	quarterly	4	94	59	0
Bealiba	quarterly	4	180	90	0
Bendigo (Northern)	quarterly	4	95	58	0
Bendigo (Southern)	quarterly	4	91	57	0
Bendigo (Spring Gully)	quarterly	4	92	57	0
Big Hill	quarterly	4	90	56	0
Boort	quarterly	4	130	111	0
Bridgewater - Inglewood	quarterly	4	29	25	0
Castlemaine	quarterly	4	40	38	0
Cohuna	quarterly	4	17	13	0
Dunolly	quarterly	4	170	61	0
Echuca	quarterly	4	11	9	0
Elmore ¹	quarterly	4	150	140	0
Epsom - Huntly	quarterly	4	97	60	0
Fryerstown	quarterly	4	41	39	0
Goornong	quarterly	4	120	118	0
Guildford	quarterly	4	41	39	0
Gunbower	quarterly	4	24	17	0
Harcourt	quarterly	4	47	40	0
Heathcote	quarterly	4	110	102	0
Junortoun	quarterly	4	96	59	0
Korong Vale	quarterly	4	21	20	0
Kyneton	quarterly	4	32	30	0
Laanecoorie	quarterly	4	150	55	0
Leitchville	quarterly	4	22	16	0
Lockington	quarterly	4	28	23	0
Maiden Gully - Marong	quarterly	4	95	56	0
Maldon	quarterly	4	48	42	0
Malmsbury	quarterly	4	31	29	0
Newstead	quarterly	4	45	40	0
Pyramid Hill	quarterly	4	28	25	0
Raywood	quarterly	4	96	57	0
Rochester	quarterly	4	18	15	0
Sebastian	quarterly	4	98	60	0
Serpentine	quarterly	4	21	20	0
Strathfieldsaye	quarterly	4	94	55	0
Taradale - Elphinstone	quarterly	4	40	39	0
Tarnagulla ¹	quarterly	4	130	55	0
Tooborac	quarterly	4	110	105	0
Trentham	quarterly	4	20	15	0
Tylden	quarterly	4	32	30	0
Wedderburn	quarterly	4	22	20	0

Zinc – Customer tap sites 2024/25

Based on aesthetic consideration (taste), the concentration of zinc in drinking water should not exceed 3 mg/L.

Table 57: Zinc results for customer tap sites (ADWG aesthetic guideline limit: 3 mg/L)

Water sampling locality	Sampling frequency	Number of samples	Maximum (mg/L)	Average (mg/L)	Number of samples where guideline was not met
Axedale	monthly	12	0.004	0.002	0
Bealiba	monthly	12	0.004	0.002	0
Bendigo (Northern)	monthly	12	0.003	0.001	0
Bendigo (Southern)	monthly	12	0.002	0.001	0
Bendigo (Spring Gully)	monthly	12	0.003	0.001	0
Big Hill	monthly	12	0.013	0.004	0
Boort	monthly	12	0.004	0.002	0
Bridgewater - Inglewood	monthly	12	0.003	0.001	0
Castlemaine	monthly	12	0.005	0.003	0
Cohuna	monthly	12	0.013	0.004	0
Dunolly	monthly	12	0.004	0.002	0
Echuca	monthly	12	0.004	0.001	0
Elmore	monthly	12	0.140	0.015	0
Epsom - Huntly	monthly	12	0.004	0.001	0
Fryerstown	monthly	12	0.019	0.010	0
Goornong	monthly	12	0.005	0.002	0
Guildford	monthly	12	0.009	0.004	0
Gunbower	monthly	12	0.004	0.001	0
Harcourt	monthly	12	0.005	0.003	0
Heathcote	monthly	12	0.002	0.001	0
Junortoun	monthly	12	0.009	0.002	0
Korong Vale	monthly	12	0.003	0.002	0
Kyneton	monthly	12	0.006	0.002	0
Laanecoorie	monthly	12	0.004	0.003	0
Leitchville	monthly	12	0.007	0.005	0
Lockington	monthly	12	<0.001	<0.001	0
Maiden Gully - Marong	monthly	12	0.003	0.001	0
Maldon	monthly	12	0.010	0.003	0
Malmsbury	monthly	12	0.013	0.006	0
Newstead	monthly	12	0.006	0.003	0
Pyramid Hill	monthly	12	0.015	0.006	0
Raywood	monthly	12	0.005	0.003	0
Rochester	monthly	12	0.007	0.002	0
Sebastian	monthly	12	0.010	0.005	0
Serpentine	monthly	12	0.007	0.004	0
Strathfieldsaye	monthly	12	0.005	0.001	0
Taradale - Elphinstone	monthly	12	0.024	0.007	0
Tarnagulla	monthly	12	0.004	0.002	0
Tooborac	monthly	12	0.017	0.006	0
Trentham	monthly	12	0.015	0.003	0
Tylden	monthly	12	0.005	0.002	0
Wedderburn	monthly	12	0.005	0.001	0

Ammonia – Customer tap sites 2024/25

Table 58: Ammonia results for customer tap sites (ADWG aesthetic guideline limit: 0.5 mg/L)

Water sampling locality	Sampling frequency	Number of samples	Maximum (mg/L)	Average (mg/L)	Number of samples where guideline was not met
Axedale	n/a	n/a	n/a	n/a	n/a
Bealiba ²	fortnightly	26	0.540	0.143	1
Bendigo (Northern) ¹	fortnightly	19	0.310	0.182	0
Bendigo (Southern) ¹	fortnightly	19	0.260	0.148	0
Bendigo (Spring Gully) ¹	fortnightly	19	0.340	0.205	0
Big Hill ¹	fortnightly	20	0.310	0.143	0
Boort	n/a	n/a	n/a	n/a	n/a
Bridgewater - Inglewood	fortnightly	26	0.410	0.135	0
Castlemaine	n/a	n/a	n/a	n/a	n/a
Cohuna	n/a	n/a	n/a	n/a	n/a
Dunolly	fortnightly	26	0.410	0.146	0
Echuca	n/a	n/a	n/a	n/a	n/a
Elmore	n/a	n/a	n/a	n/a	n/a
Epsom - Huntly ¹	fortnightly	19	0.280	0.102	0
Fryerstown	n/a	n/a	n/a	n/a	n/a
Goornong	n/a	n/a	n/a	n/a	n/a
Guildford	n/a	n/a	n/a	n/a	n/a
Gunbower	n/a	n/a	n/a	n/a	n/a
Harcourt	n/a	n/a	n/a	n/a	n/a
Heathcote	fortnightly	26	0.280	0.165	0
Junortoun ¹	fortnightly	20	0.240	0.040	0
Korong Vale	fortnightly	26	0.170	0.093	0
Kyneton	n/a	n/a	n/a	n/a	n/a
Laanecoorie	fortnightly	26	0.390	0.150	0
Leitchville	n/a	n/a	n/a	n/a	n/a
Lockington	n/a	n/a	n/a	n/a	n/a
Maiden Gully - Marong ¹	fortnightly	19	0.270	0.182	0
Maldon	n/a	n/a	n/a	n/a	n/a
Malmsbury	n/a	n/a	n/a	n/a	n/a
Newstead	n/a	n/a	n/a	n/a	n/a
Pyramid Hill	n/a	n/a	n/a	n/a	n/a
Raywood	n/a	n/a	n/a	n/a	n/a
Rochester	n/a	n/a	n/a	n/a	n/a
Sebastian	n/a	n/a	n/a	n/a	n/a
Serpentine	n/a	n/a	n/a	n/a	n/a
Strathfieldsaye ¹	fortnightly	20	0.300	0.180	0
Taradale - Elphinstone	n/a	n/a	n/a	n/a	n/a
Tarnagulla	fortnightly	26	0.370	0.156	0
Tooborac	n/a	n/a	n/a	n/a	n/a
Trentham	n/a	n/a	n/a	n/a	n/a
Tylden	n/a	n/a	n/a	n/a	n/a
Wedderburn	fortnightly	26	0.160	0.103	0

Note:

- 1 Sampling on-hold during free chlorination project.
- 2 Refer Section 4.3.1.1 for details.

Alkalinity – Customer tap sites 2024/25

Table 59: Alkalinity results for customer tap sites - whilst there is no ADWG guideline value for alkalinity it is monitored for operational purposes.

Water sampling locality	Sampling frequency	Number of Samples	Maximum (mg CaCO ₃ / L)	Average (mg CaCO ₃ / L)
Axedale	quarterly	4	72	60
Bealiba	quarterly	4	82	49
Bendigo (Northern)	quarterly	4	72	60
Bendigo (Southern)	quarterly	4	73	62
Bendigo (Spring Gully)	quarterly	4	70	61
Big Hill	quarterly	4	69	58
Boort	quarterly	4	75	49
Bridgewater - Inglewood	quarterly	4	15	13
Castlemaine	quarterly	4	52	52
Cohuna	quarterly	4	15	15
Dunolly	quarterly	4	76	33
Echuca	quarterly	4	21	19
Elmore	quarterly	4	150	140
Epsom - Huntly	quarterly	4	76	62
Fryerstown	quarterly	4	54	52
Goornong	quarterly	4	52	45
Guildford	quarterly	4	53	52
Gunbower	quarterly	4	31	27
Harcourt	quarterly	4	56	54
Heathcote	quarterly	4	49	41
Junortoun	quarterly	4	73	62
Korong Vale	quarterly	4	13	11
Kyneton	quarterly	4	59	56
Laanecoorie	quarterly	4	75	28
Leitchville	quarterly	4	25	19
Lockington	quarterly	4	33	29
Maiden Gully - Marong	quarterly	4	73	62
Maldon	quarterly	4	57	56
Malmsbury	quarterly	4	61	57
Newstead	quarterly	4	55	52
Pyramid Hill	quarterly	4	22	19
Raywood	quarterly	4	72	60
Rochester	quarterly	4	24	17
Sebastian	quarterly	4	74	61
Serpentine	quarterly	4	30	26
Strathfieldsaye	quarterly	4	72	61
Taradale - Elphinstone	quarterly	4	56	54
Tarnagulla	quarterly	4	78	35
Tooborac	quarterly	4	45	36
Trentham	quarterly	4	72	60
Tylden	quarterly	4	57	55
Wedderburn	quarterly	4	16	13

Apparent Colour – Customer tap sites 2024/25

Table 60: Apparent colour results for customer tap sites -whilst there is no ADWG guideline value for apparent colour it is monitored for operational purposes.

Water sampling locality	Sampling frequency	Number of samples	Maximum (HU)	Average (HU)
Axedale	monthly	12	4	2
Bealiba	monthly	12	4	2
Bendigo (Northern)	monthly	12	6	2
Bendigo (Southern)	monthly	12	6	2
Bendigo (Spring Gully)	monthly	12	6	2
Big Hill	monthly	12	6	2
Boort	monthly	12	4	2
Bridgewater - Inglewood	monthly	12	4	1
Castlemaine	monthly	12	4	2
Cohuna	monthly	12	6	2
Dunolly	monthly	12	4	2
Echuca	monthly	12	2	1
Elmore	monthly	12	1	1
Epsom - Huntly	monthly	12	4	2
Fryerstown	monthly	12	4	2
Goornong	monthly	12	4	2
Guildford	monthly	12	4	2
Gunbower	monthly	12	2	1
Harcourt	monthly	12	4	1
Heathcote	monthly	12	4	2
Junortoun	monthly	12	4	2
Korong Vale	monthly	12	4	2
Kyneton	monthly	12	2	1
Laanecoorie	monthly	12	12	4
Leitchville	monthly	12	4	2
Lockington	monthly	12	4	2
Maiden Gully - Marong	monthly	12	4	2
Maldon	monthly	12	2	1
Malmsbury	monthly	12	4	2
Newstead	monthly	12	4	2
Pyramid Hill	monthly	12	4	1
Raywood	monthly	12	4	2
Rochester	monthly	12	4	1
Sebastian	monthly	12	4	2
Serpentine	monthly	12	4	2
Strathfieldsaye	monthly	12	4	2
Taradale - Elphinstone	monthly	12	4	2
Tarnagulla	monthly	12	4	2
Tooborac	monthly	12	6	2
Trentham	monthly	12	2	1
Tylden	monthly	12	4	1
Wedderburn	monthly	12	6	3

5 Complaints relating to water quality

5.1 Complaints and responses

Customer queries/complaints relating to drinking water quality are recorded and followed up using a Customer Response Management (CRM) system. Generally, water quality queries are managed at the time of the enquiry, while complaints are forwarded to our Land, Water & Environment team, or Service Stream (our operational partner managing the water distribution network), depending on the type of complaint. The complaint is reviewed and actioned as appropriate.

Some of the actions that can be initiated are:

- Flushing of the main supplying the customer and or flushing of the customer's meter.
- Advisory phone call from Water Quality specialist to the customer.
- A visit to the property or written response by a Land, Water & Environment team member.

Table 61 summarises the water quality complaints we received in each category as recorded in CRM system between 1 July 2024 and 30 June 2025 and compared to the previous two years.

Complaints recorded fall into five categories, "Alleged illness", "Discoloured Water", "Taste/Odour", "Air in Water", and "Other".

Table 61: Complaints related to Water Quality by Classification

Types of complaints	Number of complaints			Comparison with previous reporting periods	Comments
	2024/25	2023/24	2022/23		
Alleged illness	15	13	10	An increase from the previous two years. The increased numbers were influenced by 5 complaints from Bendigo (southern).	The complaints reported related to skin rashes and gastrointestinal upsets. Each reported illness case was investigation through customer contact and water quality verification. The five Bendigo (southern) complaints were unrelated, and occurred randomly over the course of the 12-month period
Discoloured water	188	104	84	Increase from previous year due to a high number of complaints associated with a high flow event in the Huntly main supply pipeline.	The Huntly dirty water events were caused by the resuspension of pipeline sediment during high peak flows during an extreme heat event at the end of January and early February 2025.
Taste or odour	65	81	142	A decrease from the previous two years. Most complaints were received from the Bendigo WSLs.	The decreasing number of complaints overall reflects Coliban Water's commitment to implement taste and odour mitigation measures, such as, powdered activated carbon (PAC) dosing at WTP sites. An eight-week free chlorination period occurred in the Bendigo drinking water supply system from 28 January through to the end of April 2025. The free chlorination period is a business-as-usual activity implemented to minimise the

Types of complaints	Number of complaints			Comparison with previous reporting periods	Comments
	2024/25	2023/24	2022/23		
					system nitrification risk. The transition to and from chlorination usually attracts customer queries about taste and odour. These queries are addressed through communication and additional flushing activities.
Air in water	28	12	8	An increase from the previous two years with a significant contribution (9) from the one specific WSL	Coliban Water responds to air in water customer complaints by flushing the supply main in the vicinity of the complainant's property. There were 9 air in water complaints received from Strathfieldsaye related to two pipe burst events that occurred during July and August 2024.
Other	0	0	0	Consistent with previous years with zero complaints received in this category	
Total	296	210	244		

Table 62: Complaints related to water quality by water sampling locality 2024/25.

Water sampling locality	Types of complaints					Total complaints
	Alleged illness	Discoloured water	Taste or odour	Air in water	Other	
Axedale	0	0	0	0	0	0
Bealiba	0	0	0	0	0	0
Bendigo Northern	0	25	13	3	0	41
Bendigo Southern	5	22	6	1	0	34
Bendigo Spring Gully	1	9	5	1	0	16
Big Hill	0	0	0	0	0	0
Boort	0	1	0	0	0	1
Bridgewater-Inglewood	1	4	0	0	0	5
Castlemaine	1	2	9	0	0	12
Cohuna	0	0	3	0	0	3
Dunolly	1	3	1	0	0	5
Echuca	0	5	3	2	0	10
Elmore	1	0	2	0	0	3
Epsom / Huntly	1	71	6	5	0	83
Fryerstown	0	0	0	0	0	0
Goornong	0	1	1	0	0	2
Guildford	0	2	0	0	0	2
Gunbower	0	0	0	0	0	0
Harcourt	0	4	2	2	0	8
Heathcote	1	5	2	0	0	8
Junortoun	0	0	2	0	0	2
Korong Vale	0	0	0	0	0	0
Kyneton	0	4	3	2	0	9
Laanecoorie	0	0	0	0	0	0
Leitchville	0	2	2	0	0	4
Lockington	0	0	0	0	0	0
Maiden Gully / Marong	1	0	3	0	0	4

Water sampling locality	Types of complaints					Total complaints
	Alleged illness	Discoloured water	Taste or odour	Air in water	Other	
Maldon	0	3	1	1	0	5
Malmsbury	0	0	0	0	0	0
Newstead	0	2	0	2	0	4
Pyramid Hill	0	0	0	0	0	0
Raywood	0	1	0	0	0	1
Rochester	1	3	0	0	0	4
Sebastian	0	0	0	0	0	0
Serpentine	0	0	0	0	0	0
Strathfieldsaye	1	5	1	9	0	16
Taradale-Elphinstone	0	0	0	0	0	0
Tarnagulla	0	0	0	0	0	0
Tooborac	0	3	0	0	0	3
Trentham	0	2	0	0	0	2
Tylden	0	0	0	0	0	0
Wedderburn	0	9	0	0	0	9
Total Complaints	15	188	65	28	0	296

6 Risk Management Plan Audit Results

6.1 Outcome of the most recent audit

The most recent regulatory audit, as required by the DH Secretary, was carried out between 7 to 9 March 2023, for the audit period 1 January 2021 to 31 December 2022. Our DWQRMP was found to have not complied with the obligations imposed by Section 7(1) of the *Safe Drinking Water Act 2003*. Table 64 below lists the two minor non-complaint findings and opportunities for improvement with the action plan for addressing these findings.

6.2 Findings and Action Plan for audit completed in March 2023

There were two minor non-compliant findings and two Opportunities For Improvement (OFI) identified during the audit. Below is the action plan that was developed to address the findings. All actions have been completed.

Table 63: Coliban Water's DWQRMP 2023 regulatory audit outcomes Action Plan.

Compliance code	Finding	Actions	Timeframe
Minor non-compliance	OFI-2023-001 - Ensure the risk of people mistaking regulated water for drinking water has been assessed and effective preventive measures have been identified in the DWQRMP and implemented, including regular communication with property owners informing them of the requirement to provide signage on all internal and external taps, particularly properties used by the public, such as community halls.	Arrange for the Regulated Water section of the Risk Register to be reviewed.	Completed
		Prepare an internal memorandum for forwarding to Customer Care & Support that details the suggested communications to customers in towns supplied with Regulated Water.	Completed
		Following review of the memorandum, arrange for the implementation of communications to customers in towns supplied with Regulated Water	Completed
Minor non-compliance	OFI-2023-002 - Review the process for checking for compliance with the sampling program, to ensure that missed samples are identified in a timely manner and rescheduled. OFI-2023-003 - Progress working with ALS to reduce the instance of missed samples and address issues with receiving data.	Review ALS program versus Test Counts report to ensure only relevant info is included.	Completed
		Meet with ALS to discuss missed samples issue and current status of new LIMS system.	Completed
		Ensure ALS program versus Test Counts is reviewed weekly. Review the ALS program versus Test Counts report for any more improvements e.g. how results are displayed.	Completed
Compliant - OFI	OFI-2023-004 - Consider reviewing Table 1 in the Emergency Management Plan to reflect the current process for managing incidents that	Review relevant table in Emergency Management Plan to ensure it reflects Coliban Water's current response to incidents.	Completed

Compliance code	Finding	Actions	Timeframe
	involve notification to the Department of Health		
Compliant - OFI	OFI-2023-005 - Consider working with Veolia to reduce the flow rate of supernatant to the head of plants to align with <i>Good Practice Guide to the Operational of Drinking Water Supply Systems for the Management of Microbial Risk</i> (Water RA 2020)	Complete a Risk Assessment for this process. Review process to ' <i>Good Practice Guide to the Operation of Drinking Water Supply Systems for the Management of Microbial Risk - Second Edition</i> .'	Completed Completed

7 Regulated Water

Regulated water is water that is not intended for use as drinking water, but which could be reasonably mistaken for drinking water. Regulated water is non-potable, not suitable for human consumption and generally does not receive any form of treatment. The Minister for Health may declare a water supply as a regulated water supply under Section 6 of the Act. On 2 January 2006, the Minister for Health declared the following water supply systems as regulated water supplies: Borung, Dingee, Jarklin, Macorna, Mitiamo, Mysia and Wychitella

We currently:

- Verify signage is located at publicly accessible water supply points (e.g. toilet blocks) advising that the water supply is not suitable for drinking purposes, and this is done on an annual basis.
- Notify customers on a regular basis that the water is not for drinking and household use with a DnD symbol on their quarterly accounts.
- Our website has information for each town, and advises when water is non-potable.

Table 64: Regulated Water Systems in 2024/25

Area where regulated water is supplied	Source water	Date of publication of gazette notice	Estimated population supplied with regulated water
Borong	GWMW pipeline	19 January 2006	50
Dingee	GMW channel	19 January 2006	60
Jarklin	GMW pipeline	19 January 2006	20
Macorna	GMW channel	19 January 2006	20
Mitiamo	GMW pipeline	19 January 2006	90
Mysia	GMW pipeline	19 January 2006	20
Wychitella	GWMW pipeline	19 January 2006	30

8 Further Information

Section 23 of the Act requires us to make available for inspection by the public the results of any water quality monitoring program we've carried out, on any drinking water we have supplied. Customers and members of the public may access drinking water quality data by contacting us on the details provided below:

Telephone: 1300 363 200

Website: www.coliban.com.au

A list of glossary and terms is attached in Appendix A.

Appendix A – Glossary of Terms

Australian Drinking Water Guidelines (2011) (ADWG)

A publication by National Health and Medical Research Council that details a framework for the management of drinking water supply systems and provides information on a range of potential contaminants of water systems.

BAC Filtration

Biological activated carbon filtration is a unit process, similar to GAC filtration, which has the additional capability of removing dissolved organics by microorganisms that develop on the surface of the carbon granules.

Critical Control Point (CCP)

A point, step or procedure at which control can be applied and which is essential to prevent or eliminate a hazard or reduce it to an acceptable level.

Chloramination

The addition of chlorine compounds (e.g. chlorine gas and sodium hypochlorite) to aid the breakdown of organic matters and the inactivation harmful microorganisms. This process is modified with the addition of ammonia gas to improve total chlorine residual in the distribution network.

Chlorination

The addition of chlorine compounds (e.g. chlorine gas and sodium hypochlorite) to aid the breakdown of organic matter and the inactivation harmful microorganisms.

Clarification

A unit operation where seeds of floc are allowed to grow and settle. Clarification is usually enhanced with the addition of polymer (e.g. polyelectrolyte) to increase the size of floc and increase their settling velocities.

Coagulation/flocculation

A unit process involves addition of positively charged coagulant (e.g. aluminium chlorohydrate or aluminium sulphate) and rapid mixing, causing coalescing of suspended particles, or seeds of flocs to form and settle out of suspension.

DEECA

Department of Energy, Environment, and Climate Action.

Dissolved Air Flotation & Filtration (DAFF)

A combination of dissolved air flotation and sand filtration. Dissolved air flotation is a unit operation where fine suspended particles and floc are removed by rising bubbles in the treatment vessel.

Desalination

A unit operation where virtually all dissolved substances and suspended materials are removed by reverse osmosis and only water molecules are allowed to pass through the membranes.

Dual-media filtration

A unit operation using both anthracite coal and sand to retain floc by both adhesion and physical sieving.

Drinking Water Quality Management System (DWQMS)

A term used interchangeably with Drinking Water Quality Risk Management Plan.

Drinking Water Quality Risk Management Plan (DWQMP)

A risk management plan relating to water supply is a document that:

- contains a detailed description of the water system.
- identifies the risks to the quality of the water and the risks posed by the quality of water.
- assess those risks.
- set out the steps required to manage those risks, including the development and implementation of preventative strategies.
- contains other matters as required by the Safe Drinking Water Regulations 2015

Fluoridation

The addition of fluorine compounds (e.g. Hydrofluorosilicic Acid) into drinking water to improve the dental health of consumers.

GAC Filtration

A unit operation where floc is removed by granular activated carbon (GAC) by adhesion. GAC is fabricated to have a high surface area and hence improved efficiency for adhesion.

GMW

Goulburn-Murray Water Corporation.

GWMW

Grampians Wimmera Mallee Water Corporation.

Microfiltration/Ultrafiltration

A unit operation where fine suspended solid particles are retained by the pores of a filter membrane.

MIEX

Magnetic Ions Exchange is a unit operation where organic matter is attracted to, and removed by a MIEX resin. MIEX reduces the requirements for chemical dosage during the coagulation process, improves the efficiency of disinfection and improves the aesthetic properties of drinking water.

Minor Non-Conformance

A minor non-conformance is defined as a non-compliance with one or more auditable elements, legislative requirements or risk management activities where the potential impact of the non-conformance is not likely to be a serious or imminent risk to public health.

MoU

Memorandum of Understanding.

Opportunity for Improvement (OFI)

A conforming or non-conforming clause of the RMP or DWQMS system that does not contravene a legislative requirement. It is not itself a non-conformance. It may include opportunities for improvement, comments that may be relevant to the next audit or against best practice considerations, or incidental or isolated discrepancies.

Ozonation

A unit process that uses ozone to aid the breakdown of organic matter and the inactivation harmful microorganisms.

pH Correction

The adjustment of the pH of drinking water to get it into the recommended range, by the addition of carbon dioxide, sulphuric acid, lime, soda ash or caustic soda.

Sand Filtration

A unit operation where suspended solid particles are retained by the pores of a filter media (in this case, sand).

Supervisory Control and Data Acquisition (SCADA)

A SCADA system consists of human-machine interface, computerised logics, telemetry communication system, electronically actuated instruments and sensors. SCADA allows remote control and monitor of all key process parameters.

UV Disinfection

A unit operation where ultra violet light is impinged onto drinking water to inactive harmful microorganisms.

Plant (sometimes described as 'our plant' or 'treatment plant')

A facility where raw water is directed through various treatment processes and produces treated water fit for human consumption.

Appendix B – List of raw water organic (fungicides/herbicides/insecticides) parameters

The following table is a comprehensive list of the organic parameters that are tested for in the raw water.

Fungicides	Herbicides	Insecticides
Azoxystrobin	2,4 D Acid	1, 3-dichloropropene
Boscalid	2,4 D B	Alpha cypermethrin
Captan	Atrazine	Azinphos-methyl
Carbendazim	Diquat	Bendiocarb
Chlorothalonil	Diuron	Bifenthrin
Cyprodinil	Glyphosate	Carbaryl
Difenoconazole	Hexazinone	Chlorantraniliprole
Iprodione	MCPA	Chloropicrin
Mancozeb	Metribuzin	Chlorpyrifos
Metalaxyl-M	Metsulfuron methyl	Cypermethrin
Myclobutanil	Molinate	Cyromazine
Penconazole	Paraquat dichloride	Deltamethrin
Prochloraz	Pendimethalin	Dichlorvos
Pyraclostrobin	Prometryn	Dimethoate
Pyrimethanil	Simazine	Esfenvalerate
Tebuconazole	Triclopyr	Imidacloprid
Thiram	Tebuthiuron	Lambda-cyhalothrin
Trifloxystrobin	Thiobencarb	Malathion
Ziram	Trifluralin	Methomyl
	S-metolachlor	Omethoate
		Permethrin
		Phorate
		Pirimicarb
		Thiodicarb

Appendix C – List of treatment processes and added substances

Plant	Water sampling locality		Treatment process												Added substances							
			Coagulation & flocculation	Clarification		Filtration		Disinfection and/or Oxidation					Other		Sludge thickening / dewatering	Lime / soda ash / caustic soda / carbon dioxide / sulphuric acid /	Aluminium-based coagulants	Iron-based coagulants	Polymers	Chlorine	Ammonia	Fluoride compound
				Sedimentation / clarification	Dissolved air floatation	Granular media filtration	Membrane filtration	Chlorine gas	Chlorine dioxide	Sodium hypochlorite	Calcium hypochlorite	Ultraviolet (UV)	Ozone	Activated Carbon (PAC/GAC/BAC)	Ion exchange	Reverse osmosis						
Bendigo	Axedale	x				x	x						x	x			x	x		x	x	x
	Bendigo Northern																					
	Bendigo Southern																					
	Bendigo Spring Gully																					
	Big Hill																					
	Epsom - Huntly																					
	Junortoun																					
	Maiden Gully - Marong																					
	Raywood																					
	Sebastian																					
	Strathfieldsaye																					
Boort	Boort	x	x			x		x						x				x	x			
Bridgewater	Bridgewater - Inglewood	x	x			x		x				x		x				x	x	x		
Castlemaine	Castlemaine	x				x	x						x	x			x	x	x			x
	Fryerstown																					
	Guildford																					
	Harcourt																					
	Maldon																					
	Newstead																					

Plant	Water sampling locality	Coagulation & flocculation	Treatment process													Added substances							
			Clarification		Filtration		Disinfection and/or Oxidation						Other			Sludge thickening / dewatering	Lime / soda ash / caustic soda / carbon dioxide / sulphuric acid /	Aluminium-based coagulants	Iron-based coagulants	Polymers	Chlorine	Ammonia	Fluoride compound
			Sedimentation / clarification	Dissolved air floatation	Granular media filtration	Membrane filtration	Chlorine gas	Chlorine dioxide	Sodium hypochlorite	Calcium hypochlorite	Ultraviolet (UV)	Ozone	Activated Carbon (PAC/GAC/BAC)	Ion exchange	Reverse osmosis								
	Taradale - Elphinstone																						
Cohuna	Cohuna	x	x		x		x		x				x				x	x		x	x		x
Echuca	Echuca	x	x		x		x		x		x		x				x	x		x	x		x ⁺
Elmore	Elmore										x						x						
Goornong	Goornong	x	x		x				x				x				x	x			x		
Gunbower	Gunbower	x	x			x				x	x		x	x ⁺			x	x			x		
Heathcote	Heathcote	x	x		x		x		x		x		x			x	x	x		x	x	x	
	Tooborac																						
Korong Vale	Korong Vale	x	x		x		x				x		x			x	x	x		x	x	x	
	Wedderburn																						
Kyneton	Kyneton	x				x	x					x	x			x	x	x		x	x		x
	Malmsbury																						
	Tylden																						
Laanecoore	Bealiba	x	x		x		x		x		x		x				x	x		x	x	x	
	Dunolly																						
	Laanecoore																						
	Tarnagulla																						
Leitchville	Leitchville	x	x			x	x				x		x				x	x		x	x		
Lockington	Lockington	x		x	x					x			x				x	x		x	x		
Pyramid Hill	Pyramid Hill	x	x		x		x						x			x	x	x		x	x		
Rochester	Rochester	x	x			x	x						x			x	x	x		x	x		
Serpentine	Serpentine	x	x		x		x									x	x	x		x	x		

Plant	Water sampling locality		Treatment process													Added substances							
			Coagulation & flocculation	Clarification		Filtration		Disinfection and/or Oxidation					Other			Sludge thickening / dewatering	Lime / soda ash / caustic soda / carbon dioxide / sulphuric acid /	Aluminium-based coagulants	Iron-based coagulants	Polymers	Chlorine	Ammonia	Fluoride compound
				Sedimentation / clarification	Dissolved air floatation	Granular media filtration	Membrane filtration	Chlorine gas	Chlorine dioxide	Sodium hypochlorite	Calcium hypochlorite	Ultraviolet (UV)	Ozone	Activated Carbon (PAC/GAC/BAC)	Ion exchange								
Trentham	Trentham					X				X			X			X				X	X		

Note : 1 – Chemical is currently not being used as process is off-line.

