Drinking Water Quality Annual Report

2024–25

Acknowledgement

South East Water proudly acknowledges the Bunurong, Gunaikurnai and Wurundjeri Woi Wurrung as the Traditional Owners of the land on which we operate, and pay respect to their Elders past, present and emerging.

We acknowledge their songlines, cultural lore and continuing connection to the land and water.

We recognise and respect their continuing connections to climate, Culture and Country.

Cover image: Students from Somerville Secondary College work to renew the Yumaralla Wetlands, supported by South East Water's Community Grants program 2025.

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A message from our Managing Director

In accordance with Section 26 of the *Safe Drinking Water Act 2003* and Regulations 16 and 17 of the Safe Drinking Water Regulations 2015, we're pleased to present our *Drinking Water Quality Annual Report 2024–25.*

At South East Water, we know how essential it is for us to get the basics right – for our 1.8 million customers across Melbourne's south east to be able to rely on us to deliver safe and high-quality drinking water and safely dispose of wastewater, every day and night. This year we provided 146 billion litres of drinking water via 14,639 kilometres of mains across our network and treated 148 billion litres of waste water.

Throughout 2024-25, we conducted over 13,500 water samples were taken from our network to test against a range of chemical and microbial parameters and continued to introduce, enhance and implement improvements to our comprehensive water quality monitoring program to ensure that the water we supply is compliant with Regulations, is high quality and is safe to drink.

These initiatives include:

- using ice pigging and air scouring techniques in our water pipe cleaning program
- new and improved digital technologies for real-time water quality monitoring, enabling us to better identify and mitigate issues before they impact customers
- a new water quality sampling management system, EnviroSys, which will improve efficiency and governance of our sampling program
- upgraded our online 'water quality checker' tool
- implemented new processes for microbial testing which significantly reduced the number of false *Escherichia coli* (*E. coli*) detections within our network
- deployment of portable chlorination trailers to identify the most suitable locations for future permanent chlorinator installations.

During the year, we managed four water quality events across our network (outlined in Section 8.1 of this Report) and are committed to learning from these occurrences.

I endorse South East Water's 2024–25 Water Quality Annual Report and as an organisation, we are committed to ensuring that we provide safe and reliable water services for our customers.

Carla Purcell

Managing Director

South East Water

Note: Carla Purcell commenced as Managing Director of South East Water on 18 August 2025, prior to finalisation of this report. Our Managing Director throughout the reporting period was Lara Olsen.

Glossary

ADWG	Australian Drinking Water Guidelines 2011
COLT	Continuous online testing
DAFF	Dissolved Air Floatation and Filtration
E.coli	Escherichia coli
HACCP	Hazard Analysis and Critical Control Point
HU	Hazen Units
mg/L	Milligrams per litre
mL	Millilitres
NTU	Nephelometric Turbidity Units
Primary disinfection	The initial disinfection treatment before water is supplied to customers, usually when water leaves an open storage such as Cardinia Reservoir.
PRV	Pressure Reducing Valve
ROV	Remotely Operated Vehicle
Secondary disinfection	Additional or booster disinfection treatment carried out towards the later stages of the water supply system, where the residual from the primary disinfection has diminished.
The Act	Safe Drinking Water Act 2003
The Regulations	Safe Drinking Water Regulations 2015
This year	The 2024–25 financial year
TOC	Total Organic Carbon
µg/L	Micrograms per litre (equal to 0.0001 milligrams per litre).
UV	Ultraviolet
WTP	Water Treatment Plant

1. Overview

1.1 Our service area

South East Water operates on Bunurong, Wurundjeri Woi Wurrung and Gunaikurnai Country.

Our service area covers 3,640 square kilometres from Port Melbourne to Portsea and extends about 30 kilometres east of Pakenham, spanning over 270 kilometres of coastline.

1.2 Key facts: 2024–25

1,831,777 people serviced	**783,591** residential customers	**63,231** business customers	**146 billion** litres of drinking water supplied
148 billion litres of wastewater managed	**14,726*** kilometres of drinking water mains	**82** water pump stations	**13,574** water quality samples taken
40 water sampling localities	**68** water storage facilities	**25** secondary disinfection plants	**10** continuous online testing (COLT) units
2 portable disinfection trailers			

*Figure includes service connections.

1.3 Our drinking water supply system

South East Water buys drinking water from Melbourne Water, who harvest, stores, and conducts primary treatment before it arrives in our system.

Most of the drinking water we supply to our customers comes from protected catchments in forests reserved for harvesting water, high in the Yarra Ranges.

The rest is sourced from open catchments located at Yering Gorge (in the Yarra River) and the Maroondah Aqueduct, and from the Victorian Desalination Plant at Wonthaggi when water supplies are low.

1.3.1 Our drinking water's journey

Here's a snapshot of the journey that the drinking water we supply to our customers takes, from catchment to tap.

Most of the drinking water we supply comes from protected or uninhabited mountain ash forests high in the Yarra Ranges, managed by Melbourne Water and Parks Victoria. Here, more than 163,000 hectares are reserved for the primary purpose of harvesting water. These catchments were set aside more than 100 years ago to supply high-quality water that requires minimal treatment.

From these uppermost catchments, water flows into the Thomson and Upper Yarra reservoirs, where water may be stored for many years before being used. This is a good thing. Time allows sediment from the forests to settle, providing natural purification. Water from these upper catchments is so pristine that it doesn't need filtration.

From here, the water moves south to the Dandenong Ranges and Cardinia Shire, transferring to the Silvan and Cardinia reservoirs further south.

As it leaves these reservoirs, it's disinfected to support public health. Chlorine is used to kill potentially harmful micro-organisms and fluoride is added to improve dental health, as directed by the Department of Health under the *Fluoridation Act 1973*. Lime is added to adjust the pH to between 7 and 7.5, which improves taste and helps reduce pipe corrosion.

The water is then transported to our supply system through a secure closed network to various covered or enclosed storages before being delivered to our customers' taps.

Our customers around our South Melbourne locality are supplied with some water from the Winneke Water Treatment Plant (WTP), located at Sugarloaf Reservoir. This water is harvested from the Yarra River at Yering Gorge and from the Maroondah Aqueduct. It's then transferred to the WTP, where it's filtered then undergoes the same treatment as the water from Silvan and Cardinia reservoirs.

Localities from Bunyip to Lang Lang, the Mornington Peninsula and Cranbourne receive water from the Tarago Reservoir and Tarago Water Treatment Plant. Tarago is a Dissolved Air Flotation and Filtration (DAFF) and ultraviolet (UV) disinfection water treatment plant.

Water from the Tarago plant is fed directly into our supply system via the Tarago-Westernport Pipeline.

Much of what we do our customers never see, much like the plumbing in their homes. Our distribution system operates 24 hours a day, so that drinking water is there whenever it's needed.

1.3.2 Desalinated water

By balancing the volume of water stored in Melbourne's reservoirs, Cardinia Reservoir can receive desalinated water. Desalinated water is drinking water produced from sea water.

Our desalinated water comes from the Victorian Desalination Plant in Wonthaggi, where sea water passes through reverse osmosis membranes and is fully treated through a series of processes (see section 3.2).

The plant is a public-private partnership between the Victorian Government and AquaSure (a Ventia/Suez joint venture). The Department of Energy, Environment and Climate Action (DEECA) manage it on behalf of the Victorian Government.

Like all drinking water, desalinated water from the Victorian Desalination Plant meets the requirements of the Australian Drinking Water Guidelines 2011, Safe Drinking Water Act 2003, and World Health Organisation guidelines.

The plant's water quality specifications were determined by Melbourne's water industry and included in the contract with AquaSure by DEECA.

So that the desalinated water can merge with our water supplies, the plant has an 84-kilometre, 2-way transfer underground pipeline to Berwick where it connects with our existing network and mixes with our supply from Cardinia Reservoir.

Each year the Victorian Government decides how much water to order from the Victorian Desalination Plant based on advice from water corporations.

In 2024-25, the Victorian Government did not place an order for desalinated water. This was consistent with the desalinated water order advice provided by Melbourne Water.

1.3.3 Map – Drinking water supply system

Our supply system is closely linked with Melbourne Water's transfer system. These arrangements are formalised under a Bulk Water Supply Agreement. This sets out the amount and quality of water we receive from them.

Please view the map on the next page.


*Map is not to scale
N
North-South Pipeline
Maroondah Reservoir
Upper Yarra Reservoir
Thomson Reservoir
Sugarloaf Reservoir
Preston
Melbourne
South Yarra
Wantirna
Boronia
Mount Waverley
Silvan Reservoir
Eerntree Gully
Notting Hill
Moorabbin
Cardinia Reservoir
Hallam
Tarago Reservoir
Dandenong
Upper Beaconsfield
Narre Warren
Port Phillip Bay
Tynong
Berwick
Garfield
Chelsea
Pakenham
Cranbourne
Bunyip
Frankston
Koo Wee Rup
Mount Eliza
Mornington
Lang Lang
Western Port Bay
Mount Martha
Tyabb
Bittern
Sorrento
Dromana
Rosebud
Shoreham
Cape Schanck
Desalination plant
Bass Strait
South East Water service area
Water catchment area
Catchment reservoir
Melbourne Water water treatment plant
Melbourne Water storage tank / basin
Melbourne Water secondary disinfection plant
Melbourne Water pipeline
South East Water pipeline
Storage reservoir
South East Water storage tank/basin
South East Water secondary disinfection plant
Continuous On-Line Testing (COLT) units
Tarago Main Race
Bunyip Main Race
Transfer pipeline
Desalination plant

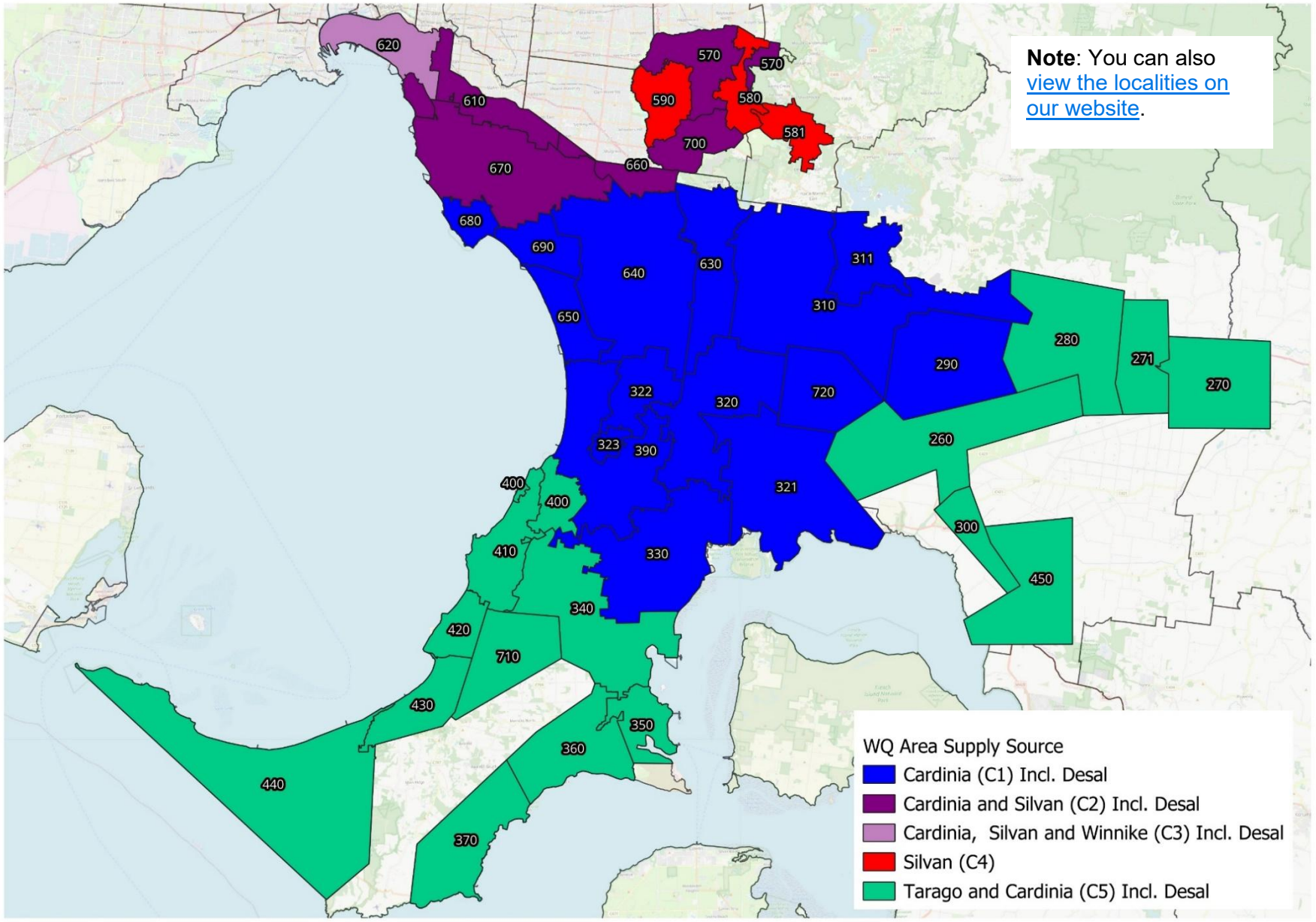
2. Water sampling localities and services

Our water system is divided into 40 water sampling localities. Each has its own number to indicate where the water is sourced from, what treatment it receives, and how it's delivered.

You can view these localities in the map (section 2.1) and table (2.2) below. To view this information online, visit the water quality checker tool on our website, which also includes recent water quality results for each area.

Note: Water quality locality boundaries don't align exactly with suburbs or townships. This is because the water supply network is designed around source water (such as storages, pressure reducing valves or pump stations) and the water mains, rather than suburb or municipality boundaries.

2.1 Map and table: Water sampling localities and supply sources



Water sampling locality number and name	Supply sources (Water Treatment Plants)	Suburbs and townships supplied	2024–25 population
360 – Balnarring	• Tarago WTP • Cardinia WTP • Victorian Desalination Plant,	Balnarring, Bittern, Merricks, Merricks Beach, Somers	6,184
570 – Bayswater	• Cardinia WTP • Silvan WTP • Victorian Desalination Plant	Bayswater, Boronia, Ferntree Gully, Knoxfield, Upper Ferntree Gully, The Basin, Wantirna, Wantirna South	70,708
680 – Beaumaris	• Cardinia WTP • Victorian Desalination Plant	Beaumaris, Black Rock, Cheltenham	29,575
581– Belgrave	• Silvan WTP	Belgrave, Belgrave Heights, Belgrave South, Selby, Upper Ferntree Gully, Tecoma, Upwey	14,929
310 – Berwick	• Cardinia WTP • Victorian Desalination Plant	Beaconsfield, Berwick, Nar Nar Goon, Narre Warren, Narre Warren South, Narre Warren North, Officer, Pakenham	130,368
350 – Bittern	• Tarago WTP • Cardinia WTP • Victorian Desalination Plant,	Bittern, Bittern West, Crib Point, HMAS Cerberus	5,826
670 – Brighton-Heatherton	• Cardinia WTP • Silvan WTP • Victorian Desalination Plant	Bentleigh, Bentleigh East, Brighton, Brighton East, Caulfield South, Cheltenham, Clarinda, Clayton South, Hampton, Heatherton, Highett, McKinnon, Mentone, Moorabbin, Oakleigh South, Ormond, Sandringham	250,411
270 – Bunyip	• Tarago WTP • Cardinia WTP • Victorian Desalination Plant,	Bunyip, Longwarry	4,928
322 – Carrum Downs	• Cardinia WTP • Victorian Desalination Plant	Carrum Downs, Skye, Sandhurst	30,683

Water sampling locality number and name	Supply sources (Water Treatment Plants)	Suburbs and townships supplied	2024–25 population
610 – Caulfield	• Cardinia WTP • Silvan WTP • Victorian Desalination Plant	Armadale, Carnegie, Caulfield, Caulfield North, Caulfield South, Clayton, Elsternwick, Elwood, Hughesdale, Huntingdale, Murrumbeena, Oakleigh, Oakleigh South, Ormond, Prahran, Ripponlea, South Yarra, Springvale, St Kilda, St Kilda East, Toorak, Windsor	166,377
650 – Chelsea	• Cardinia WTP • Victorian Desalination Plant	Aspendale, Aspendale Gardens, Bonbeach, Carrum, Chelsea, Chelsea Heights, Edithvale, Patterson Lakes	52,074
720 – Clyde North		Cardinia, Clyde, Clyde North, Officer, Officer South	45,606
260 – Cora Lynn	• Tarago WTP • Cardinia WTP • Victorian Desalination Plant	Bunyip, Koo Wee Rup, Nar Nar Goon, Tooradin	130
320 – Cranbourne	• Cardinia WTP • Victorian Desalination Plant	Cranbourne, Centreville, Cranbourne East, Cranbourne North, Cranbourne West, Cranbourne South, Langwarrin, Pearcedale	79,728
640 – Dandenong		Bangholme, Dandenong, Dandenong South, Dingley Village, Doveton, Keysborough, Noble Park, Springvale South	130,506
660 – Dandenong North	• Cardinia WTP • Silvan WTP • Victorian Desalination Plant	Clayton, Dandenong North, Noble Park North, Springvale	26,957
321 – Devon Meadows	• Cardinia WTP • Victorian Desalination Plant	Clyde, Fiveways, Warneet, Cranbourne, Blind Bight, Cannons Creek, Tooradin, Warneet	15,008

Water sampling locality number and name	Supply sources (Water Treatment Plants)	Suburbs and townships supplied	2024–25 population
430 – Dromana	• Tarago WTP • Cardinia WTP • Victorian Desalination Plant	Dromana, McCrae, Mt Martha, Safety Beach	23,054
580 – Ferntree Gully	• Silvan WTP	Boronia, Ferntree Gully, The Basin, Upper Ferntree Gully	22,381
390 – Frankston	• Cardinia WTP • Victorian Desalination Plant	Baxter, Carrum Downs, Cranbourne, Frankston, Frankston North, Langwarrin, Seaford, Pearcedale	93,463
400 – Frankston South	• Tarago WTP • Cardinia WTP • Victorian Desalination Plant	Baxter, Frankston, Frankston South, Mt Eliza	13,831
271 – Garfield		Garfield, Garfield North	1,855
630 – Hallam	• Cardinia WTP • Victorian Desalination Plant	Dandenong South, Doveton, Endeavour Hills, Eumemmerring, Hallam, Hampton Park, Lynbrook, Lyndhurst, Narre Warren North	71,647
340 – Hastings	• Tarago WTP • Cardinia WTP • Victorian Desalination Plant	Bittern, Hastings	12,219
323 – Karingal	• Cardinia WTP • Victorian Desalination Plant	Frankston	10,910
300 – Koo Wee Rup	• Tarago WTP • Cardinia WTP • Victorian Desalination Plant	Koo Wee Rup	3,388
450 – Lang Lang		Lang Lang	2,717
710 – Moorooduc		Dromana, Moorooduc, Tuerong	134
690 – Mordialloc	• Cardinia WTP • Victorian Desalination Plant	Braeside, Dingley Village, Mentone, Mordialloc, Parkdale, Waterways	33,836
410 – Mornington	• Tarago WTP • Cardinia WTP • Victorian Desalination Plant	Mt Eliza, Mornington, Mt Martha, Osborne	46,647
420 – Mt Martha		Mt Martha	10,252
290 – Pakenham	• Cardinia WTP • Victorian Desalination Plant	Pakenham	48,068

Water sampling locality number and name	Supply sources (Water Treatment Plants)	Suburbs and townships supplied	2024–25 population
700 – Rowville	• Cardinia WTP • Silvan WTP • Victorian Desalination Plant	Lysterfield, Rowville	32,318
440 – Rye	• Tarago WTP • Cardinia WTP • Victorian Desalination Plant	Blairgowrie, Cape Schanck, Fingal, McCrae, Portsea, Rosebud, Rosebud South, Capel Sound, Rye, Sorrento, St Andrews Beach, Tootgarook	79,805
370 – Shoreham		Flinders, Point Leo, Shoreham	3,522
330 – Somerville	• Cardinia WTP • Victorian Desalination Plant	Pearcedale, Somerville, Tyabb	17,145
620 – South Melbourne	• Cardinia WTP • Silvan WTP • Winneke WTP • Victorian Desalination Plant	Albert Park, Balaclava, Middle Park, Port Melbourne, Prahran, South Melbourne, South Yarra, Southbank, St Kilda, St Kilda East, St Kilda West, Toorak, Windsor	245,500
280 – Tynong	• Tarago WTP • Cardinia WTP • Victorian Desalination Plant	Nar Nar Goon, Nar Nar Goon North, Tynong	1,641
311 – Upper Beaconsfield	• Cardinia WTP • Victorian Desalination Plant	Beaconsfield, Guys Hill, Officer, Upper Beaconsfield	2,068
590 – Wantirna	• Silvan WTP	Knoxfield, Scoresby, Wantirna, Wantirna South	25,777

- The population for each locality is calculated by multiplying the number of property connections by the average number of people per property.
- Figures on the average number of people per property are taken from Victoria in Future 2024 release projections.

2.2 Private water services (private extensions)

South East Water's network has a number of privately owned water mains – known as private extensions – in which one or multiple customers are connected to one of our water or transfer mains but maintain their own pipework.

These customers are on a 'supply by agreement' with us, meaning we can't guarantee that their water pressure or water supply will be continuous. We try to minimise impacts by notifying these customers about service interruptions in the same way we do for other customers.

Large transfer pipelines supply private extensions in Cora Lynn (locality no.260) and Moorooduc (locality no. 710); the Tarago-Westernport Pipeline supplies Cora Lynn and the Bittern-Dromana Pipeline supplies Moorooduc. As these large pipelines may be shut down for maintenance reasons for extended periods, continuous access to water can't be guaranteed, as detailed in their supply agreement.

Private extensions are included in relevant water quality localities, as the quality of the water they supply is still guaranteed to meet the requirements of the Safe Drinking Water Regulations 2025 (the Regulations).

2.3 Non-drinking water

Some customers are supplied with non-drinking water from the Bunyip Main Race and Tarago Main Race. This supply is not classified as regulated water under the Safe Drinking Water Act 2003, as determined in consultation with the Department of Health.

The Bunyip Main Race and Tarago Main Race are open channel aqueduct systems, owned and operated by Melbourne Water. The water isn't disinfected or treated in any way and customers draw water into their properties for non-drinking purposes, such as farming and irrigation. To manage risks associated with supplying water that's not suitable for drinking, all Bunyip Main Race and Tarago Main Race customers have an individual supply agreement with us regarding the quality of the water they receive.

This agreement specifically states that the water supplied is not fit for human consumption. We also put a note that the water is 'not fit for drinking' on our customers' water bills and on any Section 32 agreement for land transfer.

The water isn't publicly available and can only be accessed by the customers on an agreement.

3. Drinking water treatment processes

3.1 Table: Water treatment plants – Catchment and reservoir sources and localities supplied

Treatment plant	Source water/catchment	Localities supplied
Cardinia	• Cardinia Reservoir • Victorian Desalination Plant • Silvan Reservoir	290, 311, 650, 310, 322, 630, 640, 660, 670, 680, 690, 700, 260, 710[1], 270, 271, 280, 300, 320, 321, 323, 330, 340, 350, 360, 370, 390, 400, 410, 420, 430, 440, 450, 720, 620, 610
Tarago	• Tarago Reservoir • Tarago Catchment	260[1], 710, 270, 271, 280, 300, 340, 350, 360, 370, 400, 410, 420, 430, 440, 450
Silvan	• Silvan Reservoir • Thomson Catchment • Upper Yarra Catchment • O'Shannassy Catchment • Armstrong Catchment • Cardinia Reservoir	580, 620, 570, 581, 590, 610, 700, 670, 660
Winneke	• Sugarloaf Reservoir • Maroondah Reservoir • Yarra River	620
Victorian Desalination Plant	• Bass Strait	290, 311, 650, 310, 322, 630, 640, 660, 670, 680, 690, 700, 260, 710[1], 270, 271, 280, 300, 320, 321, 323, 330, 340, 350, 360, 370, 390, 400, 410, 420, 430, 440, 450, 720, 620, 610

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- For more information on treatment processes refer to Melbourne Water's Water Quality Annual Report
- [1] Localities 260 and 710 are directly supplied with non-drinking water (without secondary disinfection) from the Tarago-Westernport pipeline and the Bittern-Dromana pipeline respectively. Customers are supplied by private water services and supply-by-agreement conditions.

3.2 Secondary disinfection

In some areas, South East Water conducts secondary disinfection by boosting free chlorine levels in the network through the addition of sodium hypochlorite. This ensures the water we supply is safe, high quality and complies with regulations and standards. You can view a summary of the treatment processes below.

Our 25 secondary disinfection plants deliver a balanced level of chlorine to suppress the regrowth of opportunistic pathogens and other microbes. The locations of these secondary disinfection plants are shown on the map of our supply system (section 1.3.3).

This secondary treatment minimises fluctuations in chlorine levels that occur with changing demand and water temperature.

3.3 Table: Substances added at each plant

Substances added	Cardinia	Tarago	Silvan	Winneke	Victorian Desalination Plant
Sulphuric acid					✓
Sodium Hypochlorite	✓		✓	✓	✓
Sodium hydroxide					✓
Sodium bisulphate					✓
Powdered activated carbon		✓			
Potassium permanganate		✓			
Polymer				✓	✓
PolyDADMAC		✓			✓
Polyacrylamide		✓		✓	
Hydrated Lime	✓	✓	✓	✓	✓
Membrane cleaning chemicals					✓
Fluorosilicic acid (FSA)	✓	✓	✓	✓	✓
Ferric sulphate					✓

Substances added	Cardinia	Tarago	Silvan	Winneke	Victorian Desalination Plant
Chlorine gas	✓	✓	✓		✓
Carbon Dioxide		✓			✓
Anti-scalant					✓
Aluminium Sulphate				✓	
Aluminium chloralhydrate		✓			

3.4 Table: Water treatment processes at each plant

Treatment process	Cardinia	Tarago	Silvan	Winneke	Victorian Desalination Plant
Aeration		✓			✓
Chlorination	✓	✓	✓	✓	✓
Clarification/filtration		✓		✓	✓
Coagulation/flocculation		✓		✓	✓
Dissolved air flotation		✓			
Fluoridation	✓	✓	✓	✓	✓
Iron/magnesium/algae removal		✓			
Organic removal					
Remineralisation					✓
Reverse osmosis					✓
Membrane preservation					✓
Sludge handling		✓		✓	✓
UV irradiation		✓		✓	
pH correction	✓	✓	✓	✓	

4. How we manage risk and protect our customers' water

4.1 Risk Management Plan

This robust plan helps us to identify and manage risks to our customers' drinking water quality. It also ensures that we meet the requirements of the *Safe Drinking Water Act 2003* (the Act), the *Safe Drinking Water Regulations 2015* (the Regulations), and the Australian Drinking Water Guidelines (ADWG) 2011. It draws on our Incident Management Plan and research projects that help us to continually improve the quality of our water.

A key component of how we manage risk is our Hazard Analysis and Critical Control Point (HACCP) Plan. This plan details the specific procedures and corrective measures we use to protect water quality.

We work with Melbourne Water to optimise and integrate our HACCP plans. This ensures water quality risks are considered and managed along the whole water supply journey – from Melbourne Water's catchments to our customers' taps.

4.2 Update on non-compliances from 2023 Audit

Our Risk Management Plan was audited under the Act in February 2023. This identified one major non-conformance, one minor non-conformance and 8 opportunities for improvement.

The non-conformances are listed below, along with the rectification works.

All opportunities for improvement identified have been completed.

These included:

- enhancing water quality training and policy communication
- implementing routine water quality awareness presentations
- introducing industry partner training.
- standardising training records for handheld meters
- replacing sample tap labels where needed
- improving hypochlorite certification process put in place
- streamlining audit tracking
- implementing handheld meter calibration solutions
- removing outdated documentation from sites to ensure compliance with current standards.

4.2.1 Major non-compliance re storage tank integrity

The audit identified a level of concern for the management and maintenance of the identified risks for storage tanks.

The risks to storage tanks and preventive measures have been detailed in the Drinking Water HACCP plan, however during the audit it was not satisfied that the preventative measures are being implemented in all cases.

Table: Actions and progress update

Actions	Progress update
• We advanced a risk-based maintenance program for water storages. • We implemented an improved inspection checklist after consultation with employees and provision of updated training.	Completed in September 2023
We've implemented a technology assisted inspection program for hard-to access storages, and we're using aerial drones and engaging professionals specialising in working at heights. On sites where there are co-located telecommunication installations, we've sought expert consultation to verify our radiation hazard plans and enhance our inspection tracking systems for better oversight.	Implementation started in September 2023 with periodic review of additional technology-assisted inspections.
We're reviewing our safety protocols for working at heights, ensuring that both infrastructure and procedures prioritise safety.	Working at heights upgrades will continue as a program of work during 2023–28.

4.2.2 Minor non-compliance re unreliability of Water Quality Management (WQS) system

The water quality management system we use is vital for monitoring water quality and alerting us to potential issues.

The previous system lacked internal IT support, making it challenging to maintain. The Water Quality team faced limitations in database modifications, necessitating external support. As such, daily issues and system alterations relied on external consultants.

During a prior incident, we were unable to access the system due to an IT software upgrade and needed to rely on manual notifications between South East Water and the laboratory for exceedance management. This issue has been resolved, as detailed in the following table.

Table: Actions and progress update

Actions	Progress update
A large project was undertaken to scope requirements, go to tender and award a contract for a new replacement system. The project was awarded to Aquire, for the Envirosys system. The process was very complex and conducted with great care to ensure the new system had all required functionality and would integrate with external and internal systems.	Phase one of system implemented in June 2025. The Water Quality and Integrated Water teams are now using the system, which will be rolled out to other teams in the future.

5. Proactive management of our water supply

We're always thinking ahead and managing our water supply in a proactive way.

Several of our supporting programs and innovative projects are linked to our HACCP Plan. You can read about some of these in this report.

5.1 Water quality incidents and issues – response and prevention

5.1.1 Incident management plan

If a water sample fails to conform or we receive a significant complaint, we're able to formally declare an incident and put an incident management plan in place.

The plan specifies the procedures to follow, including who to inform within certain timeframes. It also details escalation protocols and procedures for managing and controlling the incident.

5.1.2 Complex Incident Coordination Plan for the Melbourne Metropolitan Water Industry

South East Water, Melbourne Water, Yarra Valley Water and Greater Western Water have collaborated to develop the Melbourne Metropolitan Water Industry (MMWI) Complex Incident Coordination Plan (CICP) to ensure a coordinated response to incidents affecting multiple corporations. The CICP is regularly tested with a capability and capacity building program completed in 2025 to enhance a business-wide understanding of the plan.

In February 2024, we approved the joint Emergency Management Strategic Improvement Plan, which outlines priorities and initiatives for enhancing emergency management. This plan supports continuous improvement, collaboration, and focused investment in emergency preparedness across our industry.

5.1.3 Locateus mapping tool

Our mapping tool, Locateus, supports incident management response. It collates information from several other systems into a single map-based system, allowing us to quickly visualise the sample taps, latest results, bursts or works in the area, hydrant usage in the area, zone boundaries, number of properties, and priority assistance customers. Having all this information in one system allows us to respond to a water quality incident with confidence that all the information we require is available immediately. This allows us to undertake a rapid risk assessment determining any public health risk and to report to the Department of Health.

5.1.4 Geographic Information System (GIS) enhancements

Our Service Delivery incident management teams uses GIS as a visual tool to manage our assets. The system quickly extracts customer information for each hydraulic boundary so that we're able to identify and communicate with increased efficiency during water quality incidents. The system has the capability to sort and prioritise customers based on critical needs so we can respond in a targeted, tailored and timely way.

5.1.5 Water main renewal program

Our water main renewal program effectively prioritises renewal projects by incorporating weekly updates of the most recent field data, including the locations of burst water mains. This enables us to optimise our renewal efforts, minimising customer disruptions and efficiently managing our capital budget.

This program enhances water quality by reducing the occurrence of burst mains that stir up sediment and result in dirty water.

This year we renewed approximately 10.9 kilometres of water mains through this program.

5.1.6 Backflow prevention program

We have a dedicated team managing backflow prevention compliance. Each week approximately 400 letters are sent out to remind customers to undertake backflow testing. The team manually reviews and records backflow test reports which are submitted by licenced plumbers to ensure these comply with the AS/NZS 2845 standard. The data is recorded in the dedicated backflow management system ‘Tokay’.

All new properties connecting to our water supply network are required to install an appropriate containment backflow prevention device, relevant to the level of risk that is present from the activities on site, so that contaminants don’t enter the water supply network. Backflow hazard ratings are determined in accordance with our Backflow Protection Policy, National Construction Code 2022 and AS/NZS 3500.1.

South East Water has recently developed a Backflow Compliance Improvement Strategy to uplift compliance across its service area. While the strategy is still under review, selected elements have already been implemented, particularly those aligned with our risk-based approach, such as prioritising high-risk sites to guide resource allocation.

Over the past 12 months, targeted engagement with our top 200 customers (by water consumption) and local government bodies has resulted in a measurable uplift in compliance. Since this engagement, compliance levels have remained consistently high, with only a 1% to 3% variance, demonstrating sustained improvement and effective oversight.

To support further progress, we are currently upgrading our database system. This enhancement is expected to deliver better data management and operational efficiencies, unlocking additional resourcing capacity, and enabling us to scale the improvements achieved to date.

5.1.7 Water quality alert agent

We use a water quality complaints detection system that alerts designated employees to potential issues for investigation. An alert is triggered when 3 or more dirty water complaints are received within 24 hours from customers located within 3 kilometres of each other.

The system also flags when three or more taste and odour complaints are received across our service region within a 24-hour period. This helps us investigate broader issues while ensuring we continue to respond to each customer complaint individually.

5.1.8 Product quality notification

In addition to the water quality alert agent, our Water Quality team is notified of any instance where a water quality parameter falls outside the optimal range. These notifications are triggered using internal limits that are more rigorous than those set out in the Australian Drinking Water Guidelines 2011. This approach ensures we aim for excellence in water quality, rather than simply meeting the minimum criteria. The limits are built into our water quality database, with alerts automatically generated as data is uploaded.

Where notifications are based on customer complaints, an automated water quality alert agent is used (as described above). Each notification prompts a Water Quality team member to investigate the cause of the alert and record the corrective actions taken. This information is entered into a web-based platform, known as a Product Quality Notification, and shared with nominated employees and management.

5.1.9 Routine monitoring and testing water quality

ALS Group, an independent, National Association of Testing Authorities (NATA) accredited laboratory, are contracted by South East Water to collect and test all our drinking water samples.

This year we collected over 13,500 water quality samples from customer properties, our water storages, and large water mains to maintain a comprehensive understanding of water quality across our entire system.

These samples were tested for a range of parameters including *E. coli*, turbidity, pH, chlorine, disinfection by-products, temperature, hardness, fluoride, and metals. More than 50 parameters were measured, consistent with the regulatory requirements and guidance in the Australian Drinking Water Guidelines 2011. The samples were collected across the whole system, covering all areas within the 40 water sampling localities.

This sampling allows us to react quickly and investigate any identification of contaminants in our water. During the same period, we had no undertakings, exemptions, or variations under the Act. There is no regulated water, as defined under the Act, being supplied to customers.

5.1.10 Continuous On-Line Testing (COLT) units

We've finalised a new design of the new water testing units that will monitor the quality of water entering our network. After trialling several technologies to find the most reliable solution, we are now installing these new units at additional key points across the system, on top of the existing 10 COLT sites already in our network, which will provide increased coverage of the network. They continuously track water quality in real time and send alerts if anything unusual is detected. This early warning system allows us to respond quickly and helps ensure the water entering the network remains safe and of high quality.

5.1.11 Drone program

Our tank and storage inspection program incorporates a drone program operated through specialised contractors. Aerial and submersible drones are used to inspect and assess the condition of tanks and storages efficiently and thoroughly, enhancing safety by reducing the need for personnel to access potentially hazardous areas.

Alongside this, our in-house drone pilot continues to play a vital role, particularly in reactive response scenarios. After storm events, he can swiftly and safely inspect bird proofing and roof integrity, reaching areas that may not be safe to undertake via manual inspections.

5.1.12 Mains cleaning program

We have reintroduced our proactive mains cleaning program, analysing the network for areas to target. A complex analysis of water quality results, customer complaints and chlorine residuals, allows us to target areas to undertake the mains cleaning.

We adopted the innovative ice pigging method for cleaning our large diameter mains pipes, enhancing our water quality maintenance processes. Ice pigging involves injecting a thick slurry of ice into the pipes. As this ice slurry travels through the pipeline, it scours and scrapes away accumulated sediments, biofilms and other debris. The unique properties of the ice slurry allow it to adapt to the pipe's shape, navigating bends and irregularities to ensure a thorough clean. After completing the scouring process, the ice and the dislodged materials are flushed out, leaving the pipes clean and clear. This environmentally friendly method requires significantly less water than traditional flushing techniques and eliminates the need for harsh chemicals.

Over the last financial year, around 620 kilometres of water mains were cleaned using a combination of air scouring and flushing. The program focused on 5 zones - Hallam North H/L, Hallam Residence, Moorabbin, Humphries Road Basin, and Mount Eliza – selected through a risk-based prioritization tool, and additional reactive works at Clyde North, Lyndhurst, and Parkdale to mitigate manganese-related water quality issues.

Flushing used for pipes under 100 mm in diameter, involves releasing water at high velocity to dislodge and remove loose sediment, discolouration, and stagnant water from the network. For pipes between 100 and 250 mm, air scouring was applied – injecting compressed air and a small volume of water to create a turbulent flow that scrubs pipe walls and flushes out built-up debris through hydrants.

Post-cleaning results indicated a significant improvement in water quality, including reduced turbidity and colour, and increased chlorine residuals. The program's effectiveness is further strengthened by the development of a new mains cleaning prioritisation tool – an enhanced version of the previous model, incorporating additional variables for improved zone prioritisation for the next year.

As part of our ongoing commitment to adopting improved technologies and best practices, our ice pigging work has been accepted for presentation at Next Water 2025 (WaterRA). Next year, we also plan to conduct a comparative trial with 'Comprex', a potential cost-effective alternative to ice pigging, in collaboration with Yarra Valley Water and other utilities, to evaluate its operational viability.

5.1.13 Portable disinfection units

Our 3 portable chlorination trailers have played an important role in helping us maintain safe water quality, especially in areas where extra disinfection is needed during certain times of year. They've also helped keep operations running smoothly while key facilities undergo upgrades. Recent improvements have made the trailers even more effective, allowing them to directly connect to our monitoring systems. One of the trailers is now being upgraded with new technology that allows staff to access and manage it remotely, making it easier and safer to use in the event of bushfire or storm events near its location.

5.1.14 Best practice sample tap designs

We've significantly enhanced the reliability of our sample taps by relocating all sample taps at the water storage tanks into stainless-steel boxes and installing bollard sample taps in densely wooded areas. Our sample tap boxes and bollards play an important role in helping us monitor and maintain water quality across our distribution network. These sample tap boxes and bollards provide an extra layer of protection against environmental contamination and enable

weather-protection during sampling. This ensures that our water quality data remains accurate and reliable.

We're always looking for opportunities to install new sample taps to gain a better understanding of chlorination levels and chlorine residuals throughout the system. These efforts help us make better informed decisions so we can manage the network more effectively.

The effort that has been made to upgrade the sample tap design and monitoring program was recently recognised by the Water Industry Operators Association (WIOA)'s Waterworks magazine (May 2025 edition).

5.1.15 Water quality checker tool

In compliance with Section 23 of the Act, water quality information is publicly available on our website.

The 'water quality checker' tool features the most recent water quality test results from sample taps across our network. These results are usually published within 24 hours of receiving them. It provides a rolling 12-month summary of data for our entire network and each water sampling locality and allows customers to drill down to their area of interest and see results from specific sample taps.

All results show our compliance against the Regulation's drinking water quality standards and the Australian Drinking Water Guidelines 2011.

5.1.16 Envirosys

Our teams that are responsible for laboratory sampling and analysis have historically used different internal systems to plan, organise, manage, track, and report on sampling and data to deliver safe and reliable water to our customers and stay compliant with regulations. External parties (accredited laboratories, sample collection services) also play a critical role in supporting this work.

The outdated systems being used by different parts of the business were not being supported and could not meet the requirements for each team.

This year we successfully implemented EnviroSys, a single fit for purpose sample management system that's secure, supported, scalable and delivers efficiencies and improved governance of our water quality sampling program.

5.1.17 Tank Inspection Program

This program follows a risk-based and integrated approach that combines online and offline inspections, cleaning, and maintenance activities. The program ensures proactive management of storage assets by addressing water quality, structural integrity, and operational risks through a mix of in-house expertise, specialist contractors, and industry partners.

In 2024–25 we delivered this program through a coordinated effort involving water operations technicians, specialist contractors, and industry partners. Online inspections were conducted while tank remained operational and included 32 aerial inspections, 58 water quality inspections, 21 remotely operated vehicle (ROV) inspections, and regular monthly/bimonthly internal security inspections. These inspections focused on identifying risks such as ingress issues, sedimentation, external structural wear, and other water quality issues.

Offline inspections allowed for more detailed assessments, with 2 engineering inspections carried out using advanced scanning technologies.

Nine tanks were cleaned using manual and diver-based methods to remove sediment and biofilm.

Across all inspection types, over 700 defects were identified, evaluated, and prioritised for repair.

5.2 Chlorination strategy

We've developed a comprehensive chlorination strategy to support our target of achieving a minimum free chlorine residual of 0.2 mg/L in our network, significantly limiting the regrowth of harmful microorganisms.

Our strategy's multifaceted approach includes:

- **Desktop analysis:** Detailed evaluation of chlorine levels throughout the network.
- **Operational changes:** Adjustments to the reticulation network to improve chlorine retention.
- **Identification of critical areas:** Locating storages and localities with low chlorine residuals and sections with sub-optimal hydraulic characteristics.
- **Capital investment:** Providing supplementary disinfection measures including portable secondary disinfection units for seasonal changes and new secondary disinfection plants.

5.2.1 Implementing our chlorination strategy

- **Collaboration with Melbourne Water:** Collaborating with Melbourne Water to improve the monitoring at the boundaries and increase primary chlorination dosing set points at Melbourne Water's storages that supply water to our network.
- **Operational adjustments:** To enhance water turnover, we implemented operational changes at our tank sites and our reticulation network, improving water retention.
- **Optimising secondary disinfection plants:** We increased chlorine dosing set points at several existing secondary disinfection units in a controlled and monitored manner, ensuring no taste or odour issues for our customers.
- **New secondary disinfection plants:** In 2024–25 we used portable chlorination trailers to boost chlorine levels at storage sites that have historically experienced challenges with maintaining optimal chlorine levels. These trials helped us better understand the needs of each location. Based on the results, these sites will now be assessed for permanent dosing units in the year ahead.

5.2.2 Results and plans for the future

Since implementing the strategy in 2020, we've seen a significant improvement in residual chlorine levels across our water storage tanks and reticulation network.

During 2024–2025:

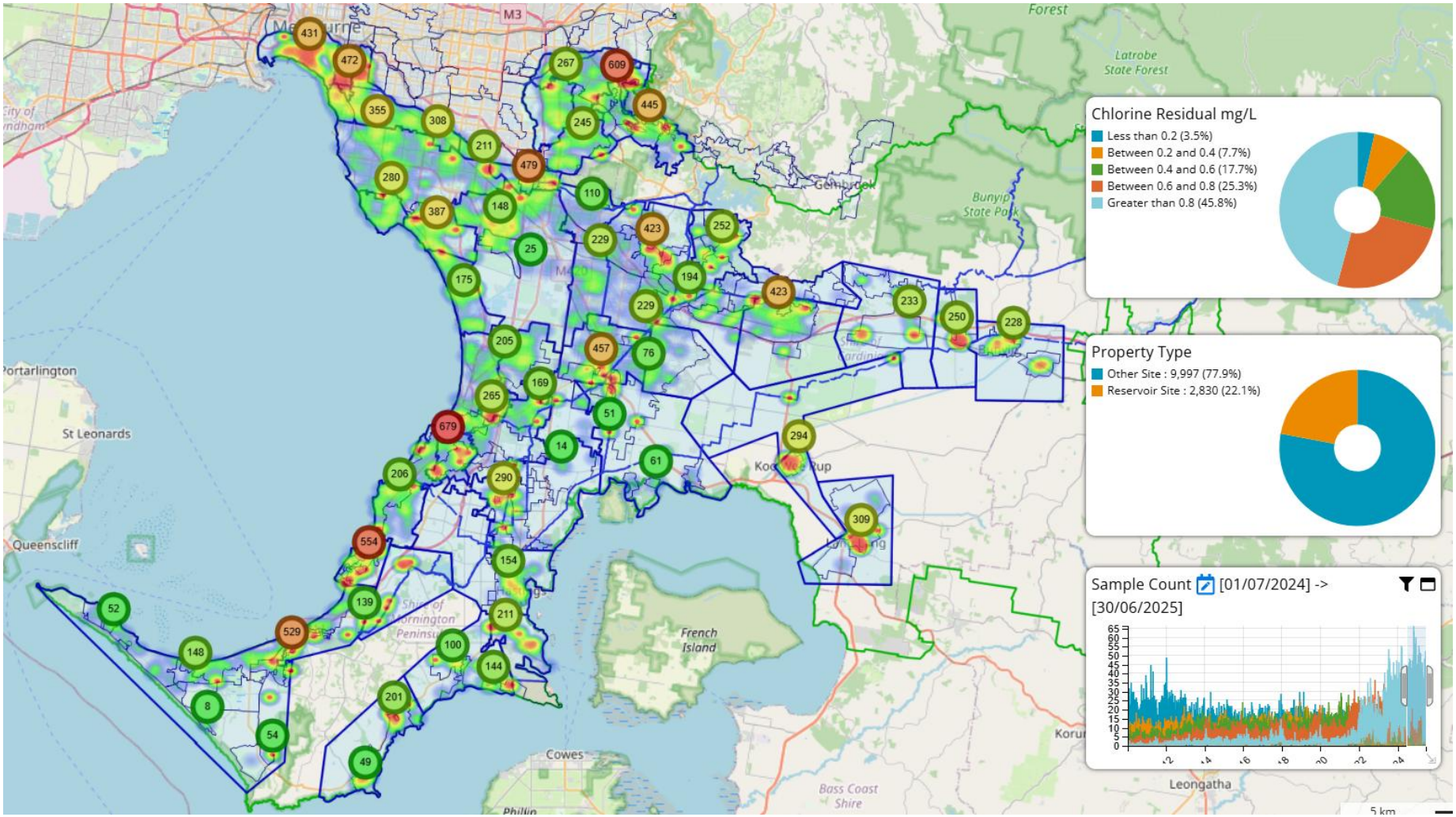
- 97% of samples at the customer taps had a residual chlorine level above 0.2 mg/L, compared to 95% in the previous year and 81% when the strategy started.
- All water storage tanks without a chlorinator maintained free chlorine levels above 0.2 mg/L.

We'll continue to enhance our strategy to achieve even higher percentages in the coming year.

5.2.3 Heat mapping tool

To complement the chlorination strategy, we use a heat mapping tool that provides a visual depiction of chlorine trends over time.

The tool allows for chlorine targets to be set and time periods to be viewed to differentiate between seasons. The results can be drilled down to sample tap level and individual results, to allow for targeted approaches to achieve the desired results.



5.2.4 Water quality sensor installation

After testing 2 different monitoring technologies and comparing results with accredited lab data, one technology clearly stood out for its accuracy and reliability. This superior system is now being rolled out across our storage sites to replace the older equipment.

The upgrade means we can track chlorine levels more consistently and with greater confidence. It also helps us respond quickly if there is a potential issue, protecting public health. The new system requires less maintenance, improves cybersecurity, connects directly to our monitoring network, and can send instant alerts if anything unusual is detected, all while reducing overall operational costs.

5.2.5 Secondary disinfection units upgraded to Programmable Logic Control (PLC)

We've updated 5 of our 25 chlorination sites with new technology as part of a larger program to improve the safety, reliability, and performance of our water treatment system. These upgrades are important because many of our older sites still use outdated equipment, smaller chemical tanks, and lack key safety features.

The new systems include advanced control technology that helps prevent issues like chemical overdosing and improves overall security and monitoring. Planning is already underway for upgrades at another 15 sites, with work expected to continue over the coming years to ensure our network meets current best practices for providing safe drinking water.

6. Water quality results

Our monitoring starts when Melbourne Water transfers water to us.

From there, it’s sampled every step of the way, right up to our customers’ homes or businesses so that they can rely on us for safe and high-quality water.

The following tables summarise our monitoring program results for all water sampling localities.

The data show results of routine samples taken at customer taps, water storage reservoirs, pump stations, pressure-reducing stations and large water mains. It excludes any results from resamples or non-routine samples.

6.1 Sampling results for standards specified in Schedule 2 of the Regulations

6.1.1 Table: Escherichia coli (E. coli)

E. coli is a coliform bacterium that indicates a high probability of recent faecal contamination of the drinking water. *E. coli* is found in large numbers in the faeces of human and other warm-blooded animals, although only a few strains of *E. coli* are human pathogens. The table below is a summary of all *E. coli* results as part of our monitoring program for each water sampling locality. The data in the table shows results of routine samples taken at customer taps, water storage reservoirs, pump stations, pressure reducing stations and large water mains.

The drinking water we supplied in all localities complied with the Safe Drinking Water Regulations 2015 standard for the number of *E. coli* per 100 millilitres of drinking water.

E. coli						
Water sampling locality number	Locality name	Sampling frequency	Number of samples tested	Max. result orgs/100mL	Number of detections and investigations conducted (s.22)	Number of samples where standard was not met (s.18)
360	Balnarring	Weekly	262	0	0	0
570	Bayswater	Weekly	656	0	0	0
680	Beaumaris	Weekly	168	0	0	0
581	Belgrave	Weekly	471	0	0	0
310	Berwick	Weekly	854	0	0	0
350	Bittern	Weekly	212	0	0	0
670	Brighton / Heatherton	Weekly	692	0	0	0
270	Bunyip	Weekly	208	0	0	0
322	Carrum Downs	Weekly	171	0	0	0
610	Caulfield	Weekly	627	0	0	0
650	Chelsea	Weekly	274	0	0	0
720	Clyde North	Weekly	167	0	0	0
260	Cora Lynn	Weekly	151	0	0	0
320	Cranbourne	Weekly	501	0	0	0
640	Dandenong	Weekly	477	0	0	0
660	Dandenong North	Weekly	264	0	0	0
321	Devon Meadows	Weekly	188	0	0	0
430	Dromana	Weekly	525	0	0	0
580	Ferntree Gully	Weekly	157	0	0	0
390	Frankston	Weekly	383	0	0	0
400	Frankston South	Weekly	459	0	0	0
271	Garfield	Weekly	254	0	0	0
630	Hallam	Weekly	330	0	0	0
340	Hastings	Weekly	166	0	0	0
323	Karingal	Weekly	216	0	0	0
300	Koo Wee Rup	Weekly	227	0	0	0

E. coli						
Water sampling locality number	Locality name	Sampling frequency	Number of samples tested	Max. result orgs/100mL	Number of detections and investigations conducted (s.22)	Number of samples where standard was not met (s.18)
450	Lang Lang	Weekly	316	0	0	0
710	Moorooduc	Weekly	154	0	0	0
690	Mordialloc	Weekly	231	0	0	0
410	Mornington	Weekly	365	0	0	0
420	Mount Martha	Weekly	347	0	0	0
290	Pakenham	Weekly	370	0	0	0
700	Rowville	Weekly	292	0	0	0
440	Rye	Weekly	512	0	0	0
370	Shoreham	Weekly	265	0	0	0
330	Somerville	Weekly	328	0	0	0
620	South Melbourne	Weekly	697	0	0	0
280	Tynong	Weekly	207	0	0	0
311	Upper Beaconsfield	Weekly	265	0	0	0
590	Wantirna	Weekly	168	0	0	0
	Business total		**13577**	**0**	**0**	**0**

- Note: Sample numbers per locality are based on population, with more samples required for a larger population as per the Australian Drinking Water Guidelines (ADWG) 2011 recommendations.

6.1.2 Table: Trihalomethane

Trihalomethanes (THMs) are by-products that form when water is disinfected with chlorine.

The drinking water we supplied in all localities complied with the Safe Drinking Water Regulations 2015 standard for total trihalomethane levels, which must not exceed 0.25mg/L per 100 millilitres. All results were less than or equal to 0.100mg/L.

Trihalomethane		Frequency of sampling	Number of samples tested	Number of non-compliant samples	Average mg/L	Maximum mg/L	Compliant?
Locality number	Locality name						
360	Balnarring	Monthly	12	0	0.053	0.072	Yes
570	Bayswater	Monthly	12	0	0.070	0.092	Yes
680	Beaumaris	Monthly	12	0	0.033	0.037	Yes
581	Belgrave	Monthly	12	0	0.080	0.100	Yes
310	Berwick	Monthly	12	0	0.026	0.037	Yes
350	Bittern	Monthly	12	0	0.058	0.067	Yes
670	Brighton / Heatherton	Monthly	24	0	0.037	0.070	Yes
270	Bunyip	Monthly	13	0	0.052	0.061	Yes
322	Carrum Downs	Monthly	12	0	0.030	0.042	Yes
610	Caulfield	Monthly	12	0	0.045	0.060	Yes
650	Chelsea	Monthly	12	0	0.038	0.047	Yes
720	Clyde North	Monthly	12	0	0.027	0.037	Yes
260	Cora Lynn	Monthly	12	0	0.049	0.059	Yes
320	Cranbourne	Monthly	12	0	0.030	0.037	Yes
640	Dandenong	Monthly	12	0	0.041	0.060	Yes
660	Dandenong North	Monthly	12	0	0.063	0.077	Yes
321	Devon Meadows	Monthly	12	0	0.035	0.057	Yes
430	Dromana	Monthly	12	0	0.060	0.076	Yes
580	Ferntree Gully	Monthly	12	0	0.062	0.073	Yes
390	Frankston	Monthly	24	0	0.037	0.054	Yes

Trihalomethane							
Locality number	Locality name	Frequency of sampling	Number of samples tested	Number of non-compliant samples	Average mg/L	Maximum mg/L	Compliant?
400	Frankston South	Monthly	12	0	0.049	0.062	Yes
271	Garfield	Monthly	12	0	0.051	0.061	Yes
630	Hallam	Monthly	12	0	0.031	0.042	Yes
340	Hastings	Monthly	12	0	0.058	0.065	Yes
323	Karingal	Monthly	12	0	0.040	0.049	Yes
300	Koo Wee Rup	Monthly	12	0	0.061	0.077	Yes
450	Lang Lang	Monthly	12	0	0.076	0.097	Yes
710	Moorooduc	Monthly	12	0	0.054	0.063	Yes
690	Mordialloc	Monthly	12	0	0.036	0.043	Yes
410	Mornington	Monthly	12	0	0.062	0.068	Yes
420	Mount Martha	Monthly	12	0	0.065	0.075	Yes
290	Pakenham	Monthly	12	0	0.030	0.040	Yes
700	Rowville	Monthly	12	0	0.056	0.096	Yes
440	Rye	Monthly	12	0	0.069	0.079	Yes
370	Shoreham	Monthly	12	0	0.055	0.070	Yes
330	Somerville	Monthly	12	0	0.035	0.046	Yes
620	South Melbourne	Monthly	12	0	0.042	0.054	Yes
280	Tynong	Monthly	12	0	0.051	0.068	Yes
311	Upper Beaconsfield	Monthly	12	0	0.043	0.055	Yes
590	Wantirna	Monthly	12	0	0.067	0.085	Yes
	Business total		**505**	**0**	**0.048**	**0.100**	**Yes**

6.1.3 Table: Turbidity

Turbidity is caused by the presence of fine suspended matter in the water, such as silt and clay. High turbidity can give the water a cloudy or muddy appearance and can lessen the effectiveness of disinfection.

The drinking water we supplied in all localities complied with the Safe Drinking Water Regulations 2015 standard for turbidity, which requires that the 95th percentile of sample results in any 12-month period must be less than or equal to 5.0 Nephelometric Turbidity Units (NTU).

Turbidity		Sampling frequency	Number of samples tested	Maximum NTU	95th percentile NTU	Compliant?
Locality number	Locality name					
360	Balnarring	Weekly	104	0.8	0.6	Yes
570	Bayswater	Weekly	262	1.4	0.9	Yes
680	Beaumaris	Weekly	104	0.9	0.8	Yes
581	Belgrave	Weekly	104	1.1	0.8	Yes
310	Berwick	Weekly	273	1.0	0.7	Yes
350	Bittern	Weekly	106	0.8	0.6	Yes
670	Brighton / Heatherton	Weekly	257	1.1	0.9	Yes
270	Bunyip	Weekly	104	1.0	0.2	Yes
322	Carrum Downs	Weekly	103	0.8	0.7	Yes
610	Caulfield	Weekly	240	1.3	0.9	Yes
650	Chelsea	Weekly	154	1.8	0.8	Yes
720	Clyde North	Weekly	103	1.1	0.8	Yes
260	Cora Lynn	Weekly	99	0.7	0.4	Yes
320	Cranbourne	Weekly	316	1.4	0.7	Yes
640	Dandenong	Weekly	151	1.0	0.9	Yes
660	Dandenong North	Weekly	209	2.4	1.0	Yes
321	Devon Meadows	Weekly	134	1.6	0.7	Yes
430	Dromana	Weekly	104	0.6	0.4	Yes

Turbidity		Sampling frequency	Number of samples tested	Maximum NTU	95th percentile NTU	Compliant?
Locality number	Locality name					
580	Ferntree Gully	Weekly	105	1.2	0.9	Yes
390	Frankston	Weekly	122	0.8	0.7	Yes
400	Frankston South	Weekly	139	0.8	0.6	Yes
271	Garfield	Weekly	155	0.3	0.1	Yes
630	Hallam	Weekly	155	0.8	0.7	Yes
340	Hastings	Weekly	107	0.7	0.5	Yes
323	Karingal	Weekly	108	0.8	0.7	Yes
300	Koo Wee Rup	Weekly	103	0.5	0.2	Yes
450	Lang Lang	Weekly	154	0.4	0.2	Yes
710	Moorooduc	Weekly	102	0.8	0.5	Yes
690	Mordialloc	Weekly	155	2.7	0.8	Yes
410	Mornington	Weekly	208	0.9	0.5	Yes
420	Mount Martha	Weekly	139	0.7	0.4	Yes
290	Pakenham	Weekly	154	0.9	0.7	Yes
700	Rowville	Weekly	156	1.1	0.9	Yes
440	Rye	Weekly	104	0.8	0.4	Yes
370	Shoreham	Weekly	159	1.8	0.6	Yes
330	Somerville	Weekly	161	1.7	0.7	Yes
620	South Melbourne	Weekly	256	4.0	0.8	Yes
280	Tynong	Weekly	103	0.6	0.2	Yes
311	Upper Beaconsfield	Weekly	103	0.8	0.7	Yes
590	Wantirna	Weekly	104	1.5	1.0	Yes
	Business total		**5979**	**4.0**	**0.8**	**Yes**

6.1.4 Table: Compliance summary for drinking water quality standards

This year we maintained 100% compliance with regulatory water quality standards.

Parameter	Percentage of localities supplied with compliant water			Percentage of customers supplied with compliant water		
	2022–23	**2023–24**	**2021–22**	**2022–23**	**2023–24**	**2024–25**
Escherichia coli	97.5%	100%	100%	99.9%	100%	100%
Trihalomethanes	100%	100%	100%	100%	100%	100%
Turbidity	100%	100%	100%	100%	100%	100%

6.2 Other water quality standard results

These tables summarise the results of the other water quality standards in our monitoring program that could pose a risk to human health. We measure these standards against the Australian Drinking Water Guidelines 2011 criteria. Many of these parameters only require infrequent sampling because the results don't vary significantly, from year-to-year, or from locality-to-locality, for the same source water.

Specific results for arsenic, copper, lead, and manganese have been shown not to change in Melbourne's water supply. For this reason, this year we took random samples from locality groups with similar source water to achieve a monitoring spread across our distribution system.

All levels have remained consistently below the maximums specified in the Australian Drinking Water Guidelines 2011 over the 3-year period. Results for previous years can be viewed in the water quality annual reports on our website.

6.2.1 Table: Fluoride

Fluoride is added to drinking water to improve dental health, as required by the *Health (Fluoridation) Act 1973*. Melbourne Water fluoridation plants treat drinking water supplied to our service area.

The drinking water we supplied met the Health (Fluoridation) Act 1973 drinking water standards for fluoride, which state that individual results must not exceed 1.5mg/L and average optimum concentration must not exceed 1.0 mg/L.

Fluoride						
Locality number	Locality name	Number of samples tested	Minimum mg/L	Average mg/L	Maximum mg/L	Compliant?
L360	Balnarring	12	0.69	0.80	0.87	Yes
L570	Bayswater	12	0.70	0.79	0.89	Yes
L680	Beaumaris	12	0.60	0.80	0.89	Yes
L581	Belgrave	12	0.67	0.80	0.88	Yes
L310	Berwick	12	0.36	0.77	0.90	Yes
L350	Bittern	12	0.74	0.82	0.89	Yes
L670	Brighton / Heatherton	12	0.71	0.82	0.93	Yes
L270	Bunyip	13	0.62	0.84	0.95	Yes
L322	Carrum Downs	12	0.39	0.84	0.98	Yes
L610	Caulfield	12	0.52	0.81	0.88	Yes
L650	Chelsea	12	0.72	0.81	0.88	Yes
L720	Clyde North	12	0.54	0.81	0.91	Yes
L260	Cora Lynn	12	0.35	0.81	0.88	Yes
L320	Cranbourne	12	0.53	0.81	0.97	Yes
L640	Dandenong	12	0.74	0.82	0.91	Yes
L660	Dandenong North	12	0.52	0.76	0.88	Yes
L321	Devon Meadows	12	0.67	0.81	0.88	Yes
L430	Dromana	12	0.79	0.84	0.93	Yes
L580	Ferntree Gully	12	0.73	0.82	0.94	Yes
L390	Frankston	12	0.69	0.83	0.90	Yes
L400	Frankston South	12	0.70	0.80	0.86	Yes

Fluoride						
Locality number	Locality name	Number of samples tested	Minimum mg/L	Average mg/L	Maximum mg/L	Compliant?
L271	Garfield	12	0.76	0.83	0.90	Yes
L630	Hallam	12	0.38	0.75	0.94	Yes
L340	Hastings	12	0.68	0.81	0.86	Yes
L323	Karingal	12	0.70	0.81	0.87	Yes
L300	Koo Wee Rup	12	0.75	0.84	0.98	Yes
L450	Lang Lang	12	0.78	0.84	0.93	Yes
L710	Moorooduc	12	0.76	0.83	0.94	Yes
L690	Mordialloc	12	0.70	0.82	0.91	Yes
L410	Mornington	12	0.73	0.83	0.98	Yes
L420	Mount Martha	12	0.78	0.82	0.88	Yes
L290	Pakenham	12	0.76	0.85	0.95	Yes
L700	Rowville	12	0.58	0.79	0.89	Yes
L440	Rye	14	0.74	0.83	0.92	Yes
L370	Shoreham	12	0.66	0.78	0.85	Yes
L330	Somerville	12	0.49	0.81	0.96	Yes
L620	South Melbourne	12	0.73	0.80	0.89	Yes
L280	Tynong	12	0.76	0.83	0.88	Yes
L311	Upper Beaconsfield	12	0.79	0.85	0.95	Yes
L590	Wantirna	12	0.61	0.79	0.87	Yes
Business total		**483**	**0.35**	**0.81**	**0.98**	**Yes**

6.2.2 Table: Chlorine

Chlorine is the primary disinfectant used in Melbourne's water supply. We add chlorine to destroy any harmful micro-organisms, such as pathogenic bacteria. Less than 1.5 mg/L is added to drinking water at any point in our network through our secondary treatment units.

The drinking water we supplied met the Australian Drinking Water Guidelines 2011 recommended guideline values for chlorine (5 mg/L).

It's important that we maintain effective disinfection and a consistent concentration of chlorine. Chlorine levels are higher in the water sampling localities closer to where the treatment occurs as chlorine levels gradually decline over time.

Chlorine		Frequency of sampling	Number of samples tested	Minimum mg/L	Average mg/L	Maximum mg/L	Compliant?
Locality number	Locality name						
L360	Balnarring	Weekly	262	< 0.05	0.83	1.70	Yes
L570	Bayswater	Weekly	656	0.07	1.03	1.70	Yes
L680	Beaumaris	Weekly	168	0.13	0.76	1.10	Yes
L581	Belgrave	Weekly	471	< 0.05	0.64	3.10	Yes
L310	Berwick	Weekly	854	0.11	0.87	1.60	Yes
L350	Bittern	Weekly	212	< 0.05	0.66	1.40	Yes
L670	Brighton / Heatherton	Weekly	692	< 0.05	0.70	1.20	Yes
L270	Bunyip	Weekly	208	0.06	0.51	0.97	Yes
L322	Carrum Downs	Weekly	171	0.22	0.98	2.10	Yes
L610	Caulfield	Weekly	627	< 0.05	0.64	1.20	Yes
L650	Chelsea	Weekly	274	< 0.05	0.69	1.20	Yes
L720	Clyde North	Weekly	167	0.36	0.94	1.40	Yes
L260	Cora Lynn	Weekly	151	< 0.05	0.38	1.30	Yes
L320	Cranbourne	Weekly	501	0.25	0.94	1.50	Yes
L640	Dandenong	Weekly	477	< 0.05	0.67	1.30	Yes
L660	Dandenong North	Weekly	264	< 0.05	0.60	1.10	Yes
L321	Devon Meadows	Weekly	186	< 0.05	0.83	1.70	Yes
L430	Dromana	Weekly	525	< 0.05	0.78	1.80	Yes

Chlorine		Frequency of sampling	Number of samples tested	Minimum mg/L	Average mg/L	Maximum mg/L	Compliant?
Locality number	Locality name						
L580	Ferntree Gully	Weekly	157	0.10	1.13	1.70	Yes
L390	Frankston	Weekly	383	< 0.05	0.81	1.90	Yes
L400	Frankston South	Weekly	458	< 0.05	0.66	2.00	Yes
L271	Garfield	Weekly	254	0.15	0.67	1.30	Yes
L630	Hallam	Weekly	330	< 0.05	1.03	1.60	Yes
L340	Hastings	Weekly	166	0.31	0.90	1.30	Yes
L323	Karingal	Weekly	216	0.15	0.73	1.10	Yes
L300	Koo Wee Rup	Weekly	227	< 0.05	0.55	1.10	Yes
L450	Lang Lang	Weekly	316	0.34	1.02	1.80	Yes
L710	Moorooduc	Weekly	154	< 0.05	0.93	1.60	Yes
L690	Mordialloc	Weekly	231	< 0.05	0.45	0.86	Yes
L410	Mornington	Weekly	365	0.07	0.79	1.60	Yes
L420	Mount Martha	Weekly	347	0.06	0.68	1.20	Yes
L290	Pakenham	Weekly	370	0.16	0.73	1.20	Yes
L700	Rowville	Weekly	292	0.34	1.01	1.50	Yes
L440	Rye	Weekly	512	< 0.05	0.76	1.50	Yes
L370	Shoreham	Weekly	265	< 0.05	0.74	1.50	Yes
L330	Somerville	Weekly	328	< 0.05	0.71	1.30	Yes
L620	South Melbourne	Weekly	697	< 0.05	0.68	1.60	Yes
L280	Tynong	Weekly	207	< 0.05	0.52	1.20	Yes
L311	Upper Beaconsfield	Weekly	265	< 0.05	0.68	1.40	Yes
L590	Wantirna	Weekly	168	< 0.05	0.67	1.20	Yes
Business total			**13574**	**< 0.05**	**0.76**	**3.10**	**Yes**

6.2.3 Table: Arsenic

Arsenic is a naturally occurring element that can be introduced into water through the dissolution of minerals and ores (where it exists mainly in the sulphide form) or from industrial effluent and atmospheric deposition (through the burning of fossil fuels and waste incineration).

The drinking water we supplied complied with the Australian Drinking Water Guidelines 2011 guideline value for arsenic (0.01mg/L).

Arsenic							
Locality number	Locality name	Number of samples tested	Number of non-compliant results	Minimum mg/L	Average mg/L	Maximum mg/L	Compliant?
L310	Berwick	1	0	< 0.001	< 0.001	< 0.001	Yes
L390	Frankston	1	0	< 0.001	< 0.001	< 0.001	Yes
L570	Bayswater	1	0	< 0.001	< 0.001	< 0.001	Yes
L620	South Melbourne	1	0	< 0.001	< 0.001	< 0.001	Yes
L670	Brighton / Heatherton	1	0	< 0.001	< 0.001	< 0.001	Yes
L690	Mordialloc	1	0	< 0.001	< 0.001	< 0.001	Yes
Business total		**6**	**0**	**<0.001**	**<0.001**	**<0.001**	**Yes**

6.2.4 Table: Copper

Copper can occur naturally in catchments as it is widely distributed in rocks and soils as carbonate and sulphide minerals. Copper can cause the water to appear blue or green, which may stain appliances and clothing.

The drinking water we supplied complied with the Australian Drinking Water Guidelines 2011 guideline value for copper (2mg/L).

Copper							
Locality number	Locality name	Number of samples tested	Number of non-compliant results	Minimum mg/L	Average mg/L	Maximum mg/L	Compliant?
L310	Berwick	2	0	0.006	0.007	0.008	Yes
L320	Cranbourne	1	0	0.011	0.011	0.011	Yes
L350	Bittern	1	0	0.004	0.004	0.004	Yes
L390	Frankston	1	0	0.030	0.030	0.030	Yes
L440	Rye	1	0	0.049	0.049	0.049	Yes
L570	Bayswater	1	0	0.026	0.026	0.026	Yes
L581	Belgrave	1	0	0.002	0.002	0.002	Yes
L590	Wantirna	1	0	0.042	0.042	0.042	Yes
L610	Caulfield	2	0	0.008	0.011	0.013	Yes
L620	South Melbourne	2	0	0.003	0.008	0.012	Yes
L630	Hallam	1	0	0.004	0.004	0.004	Yes
L650	Chelsea	1	0	0.014	0.014	0.014	Yes
L660	Dandenong North	2	0	0.003	0.012	0.020	Yes
L670	Brighton / Heatherton	3	0	0.024	0.042	0.074	Yes
L690	Mordialloc	1	0	0.006	0.006	0.006	Yes
Business total		**21**	**0**	**0.002**	**0.018**	**0.074**	**Yes**

6.2.5 Table: Lead

Lead can be present in drinking water due to dissolution from natural sources or from household plumbing systems containing lead. The amount of lead dissolved will depend on a number of factors including pH, water hardness and how long the water has been standing.

The drinking water we supplied complied with both the previous and updated Australian Drinking Water Guidelines 2011 guideline values for lead (0.01mg/L and 0.005mg/L respectively).

Lead							
Locality number	Locality name	Number of samples tested	Number of non-compliant results	Minimum mg/L	Average mg/L	Maximum mg/L	Compliant?
L310	Berwick	1	0	< 0.001	< 0.001	< 0.001	Yes
L390	Frankston	1	0	< 0.001	< 0.001	< 0.001	Yes
L570	Belgrave	1	0	< 0.001	< 0.001	< 0.001	Yes
L620	South Melbourne	1	0	< 0.001	< 0.001	< 0.001	Yes
L670	Brighton / Heatherton	1	0	< 0.001	< 0.001	< 0.001	Yes
L690	Mordialloc	1	0	< 0.001	< 0.001	< 0.001	Yes
Business total		**6**	**0**	**< 0.001**	**< 0.001**	**< 0.001**	**Yes**

6.2.6 Table: Manganese

Manganese is naturally present in the environment in various water-soluble states. At concentrations exceeding 0.1mg/L, manganese imparts an undesirable taste to water and stains plumbing fixtures and laundry.

Drinking water we supplied complied with both the previous and updated Australian Drinking Water Guidelines 2011 guideline values for manganese (0.5mg/L and 0.1mg/l respectively).

Sampling locations are random and change each year.

Manganese							
Locality number	Locality name	Number of samples tested	Number of non-compliant results	Minimum mg/L	Average mg/L	Maximum mg/L	Compliant?
L260	Cora Lynn	7	0	< 0.001	< 0.001	0.002	Yes
L270	Bunyip	9	0	< 0.001	< 0.001	0.002	Yes
L271	Garfield	9	0	< 0.001	< 0.001	0.001	Yes
L280	Tynong	9	0	< 0.001	0.001	0.002	Yes
L290	Pakenham	16	0	0.006	0.010	0.023	Yes
L300	Koo Wee Rup	8	0	< 0.001	0.001	0.002	Yes
L310	Berwick	32	0	0.002	0.008	0.015	Yes
L311	Upper Beaconsfield	12	0	0.005	0.011	0.022	Yes
L320	Cranbourne	20	0	0.003	0.009	0.013	Yes
L321	Devon Meadows	9	0	0.007	0.010	0.013	Yes
L322	Carrum Downs	7	0	0.003	0.009	0.013	Yes
L323	Karingal	9	0	0.002	0.007	0.009	Yes
L330	Somerville	12	0	0.005	0.008	0.017	Yes
L340	Hastings	7	0	0.002	0.004	0.006	Yes
L350	Bittern	8	0	0.005	0.007	0.009	Yes
L360	Balnarring	11	0	0.003	0.007	0.011	Yes
L370	Shoreham	10	0	0.004	0.006	0.008	Yes

Manganese							
Locality number	Locality name	Number of samples tested	Number of non-compliant results	Minimum mg/L	Average mg/L	Maximum mg/L	Compliant?
L390	Frankston	15	0	0.002	0.008	0.012	Yes
L400	Frankston South	16	0	0.005	0.007	0.009	Yes
L410	Mornington	14	0	0.003	0.004	0.006	Yes
L420	Mount Martha	15	0	0.003	0.005	0.008	Yes
L430	Dromana	21	0	0.003	0.005	0.009	Yes
L440	Rye	18	0	0.002	0.004	0.006	Yes
L450	Lang Lang	13	0	< 0.001	0.002	0.004	Yes
L570	Bayswater	28	0	0.004	0.004	0.006	Yes
L580	Ferntree Gully	9	0	0.004	0.005	0.006	Yes
L581	Belgrave	21	0	0.004	0.005	0.006	Yes
L590	Wantirna	9	0	0.004	0.005	0.005	Yes
L610	Caulfield	30	0	0.004	0.008	0.051	Yes
L620	South Melbourne	34	0	0.002	0.008	0.023	Yes
L630	Hallam	15	0	0.002	0.009	0.012	Yes
L640	Dandenong	21	0	0.002	0.006	0.015	Yes
L670	Brighton / Heatherton	33	0	0.002	0.007	0.011	Yes
L680	Beaumaris	7	0	0.003	0.009	0.012	Yes
L690	Mordialloc	10	0	0.006	0.011	0.019	Yes
L700	Rowville	11	0	0.004	0.006	0.013	Yes
L710	Moorooduc	6	0	0.003	0.005	0.009	Yes
L720	Clyde North	7	0	0.007	0.008	0.011	Yes
Business total		**576**	**0**	**< 0.001**	**0.006**	**0.051**	**Yes**

6.2.7 Table: Boron

Boron can be present in drinking water through the natural leaching of boron-containing minerals, or by contamination of water sources.

The drinking water we supplied complied with the Australian Drinking Water Guidelines 2011 guideline value for boron (4mg/L).

Boron Locality number	Locality name	Number of samples tested	Number of non-compliant results	Minimum mg/L	Average mg/L	Maximum mg/L	Compliant?
L260	Cora Lynn	1	0	< 0.02	< 0.02	< 0.02	Yes
L270	Bunyip	1	0	< 0.02	< 0.02	< 0.02	Yes
L280	Tynong	1	0	< 0.02	< 0.02	< 0.02	Yes
L290	Pakenham	1	0	0.10	0.10	0.10	Yes
L310	Berwick	2	0	0.09	0.095	0.10	Yes
L311	Upper Beaconsfield	1	0	0.09	0.09	0.09	Yes
L320	Cranbourne	1	0	0.11	0.11	0.11	Yes
L322	Carrum Downs	1	0	0.10	0.10	0.10	Yes
L323	Karingal	1	0	0.09	0.09	0.09	Yes
L340	Hastings	1	0	0.05	0.05	0.05	Yes
L360	Balnarring	1	0	0.09	0.09	0.09	Yes
L390	Frankston	1	0	0.11	0.11	0.11	Yes
L410	Mornington	1	0	0.07	0.07	0.07	Yes
L430	Dromana	1	0	0.07	0.07	0.07	Yes

Boron Locality number	Locality name	Number of samples tested	Number of non-compliant results	Minimum mg/L	Average mg/L	Maximum mg/L	Compliant?
L570	Bayswater	3	0	< 0.02	< 0.02	< 0.02	Yes
L580	Ferntree Gully	3	0	< 0.02	< 0.02	< 0.02	Yes
L581	Belgrave	2	0	< 0.02	< 0.02	< 0.02	Yes
L590	Wantirna	3	0	< 0.02	< 0.02	< 0.02	Yes
L610	Caulfield	7	0	< 0.02	0.04	0.07	Yes
L620	South Melbourne	6	0	0.04	0.06	0.10	Yes
L630	Hallam	2	0	0.08	0.09	0.10	Yes
L640	Dandenong	2	0	0.06	0.08	0.09	Yes
L650	Chelsea	1	0	0.09	0.09	0.09	Yes
L660	Dandenong North	6	0	< 0.02	< 0.02	< 0.02	Yes
L670	Brighton / Heatherton	6	0	0.06	0.08	0.10	Yes
L680	Beaumaris	1	0	0.10	0.10	0.10	Yes
L690	Mordialloc	1	0	0.11	0.11	0.11	Yes
L700	Rowville	1	0	0.09	0.09	0.09	Yes
L720	Clyde North	1	0	0.07	0.07	0.07	Yes
Business total		**60**	**0**	**< 0.02**	**0.05**	**0.11**	**Yes**

6.2.8 Table: Inorganic parameters

The following 2 tables summarise our measurements of all other parameters that may pose a risk to human health.

We measure these parameters against the Australian Drinking Water Guidelines 2011 guideline values. (N/A indicates that a guideline value has not been set).

All results are in mg/L unless indicated after the parameter name.

Parameter	Number of samples tested	Minimum mg/L	Average mg/L	Maximum mg/L	ADWG guideline value (mg/L)	Compliant?
Ammonia	5	< 0.1	< 0.1	< 0.1	0.5	Yes
Calcium	20	3.6	5.2	8.5	N/A	N/A
Chloride	5	7	9	16	250	Yes
Dissolved Oxygen	9	6.9	9.30	10.9	N/A	N/A
Electrical conductivity (µS/cm)	4865	54	83	170	~780 µS/cm	Yes
Hardness	20	15	18.00	27	200	Yes
Magnesium	20	1	1.20	1.6	N/A	N/A
Potassium	5	0.5	0.60	0.9	N/A	N/A
Silica	5	4.6	5.10	6.3	N/A	N/A
Sodium	5	4.1	5.1	7.9	180	Yes

6.2.9 Table: Organic parameters

Parameter	Number of samples tested	Minimum mg/L	Average mg/L	Maximum mg/L	ADWG guideline value (mg/L)	Compliant?
Trihalomethanes						
Dibromochloromethane	505	< 0.001	0.004	0.013	N/A	N/A
Bromoform	505	< 0.001	< 0.001	0.001	N/A	N/A
Dichlorobromomethane	505	< 0.001	0.011	0.029	N/A	N/A
Chloroform	505	< 0.001	0.033	0.090	N/A	N/A
Haloacetic acids						
Bromoacetic Acid	10	< 0.005	< 0.005	< 0.005	N/A	N/A
Bromochloroacetic Acid	10	< 0.005	< 0.005	< 0.005	N/A	N/A
Bromodichloroacetic Acid	10	< 0.005	< 0.005	0.007	N/A	N/A
Dibromoacetic Acid	10	< 0.005	< 0.005	< 0.005	N/A	N/A
Dichloroacetic Acid	10	0.005	0.009	0.020	0.1	Yes
Monochloroacetic Acid	10	< 0.005	< 0.005	< 0.005	0.15	Yes
Trichloroacetic Acid	10	0.012	0.024	0.049	0.1	Yes
Chlorophenols						
2 chlorophenol	10	< 0.001	< 0.001	< 0.001	0.3 mg/L	Yes
2,4 dichlorophenol	10	< 0.001	< 0.001	< 0.001	0.2 mg/L	Yes
2,4,6 trichlorophenol	10	< 0.001	< 0.001	< 0.001	0.02 mg/L	Yes
Pentachlorophenol	10	< 0.001	< 0.001	< 0.001	0.01 mg/L	Yes
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene	5	< 0.000002	< 0.000002	< 0.000002	0.00001 mg/L	Yes
Volatile Organic Compounds						
Benzene	10	< 0.001	< 0.001	< 0.001	0.001 mg/L	Yes
Carbon Tetrachloride	10	< 0.001	< 0.001	< 0.001	0.003 mg/L	Yes
Chlorobenzene	10	< 0.001	< 0.001	< 0.001	0.3 mg/L	Yes
1,2-dichlorobenzene	10	< 0.001	< 0.001	< 0.001	1.5 mg/L	Yes

Parameter	Number of samples tested	Minimum mg/L	Average mg/L	Maximum mg/L	ADWG guideline value (mg/L)	Compliant?
1,3-dichlorobenzene	10	< 0.001	< 0.001	< 0.001	0.02 mg/L	Yes
1,4-dichlorobenzene	10	< 0.001	< 0.001	< 0.001	0.04 mg/L	Yes
1,1-dichloroethane	10	< 0.001	< 0.001	< 0.001	N/A	N/A
1,2-dichloroethane	10	< 0.001	< 0.001	< 0.001	0.003 mg/L	Yes
1,1-dichloroethene	10	< 0.001	< 0.001	< 0.001	0.03 mg/L	Yes
cis-1,2-dichloroethene	10	< 0.001	< 0.001	< 0.001	0.06 mg/L	Yes
trans-1,2-dichloroethene	10	< 0.001	< 0.001	< 0.001	0.06 mg/L	Yes
Dichloromethane	10	< 0.001	< 0.001	< 0.001	0.004 mg/L	Yes
cis-1,3-dichloropropene	10	< 0.001	< 0.001	< 0.001	0.1 mg/L	Yes
trans-1,3-dichloropropene	10	< 0.001	< 0.001	< 0.001	0.1 mg/L	Yes
Ethylbenzene	10	< 0.001	< 0.001	< 0.001	0.3 mg/L	Yes
Styrene	10	< 0.001	< 0.001	< 0.001	0.03 mg/L	Yes
Tetrachloroethene	10	< 0.001	< 0.001	< 0.001	0.05 mg/L	Yes
Toluene	10	< 0.001	< 0.001	< 0.001	0.8 mg/L	Yes
1,2,3-trichlorobenzene	10	< 0.001	< 0.001	< 0.001	0.03 mg/L	Yes
1,2,4-trichlorobenzene	10	< 0.001	< 0.001	< 0.001	0.03 mg/L	Yes
o -Xylene	10	< 0.001	< 0.001	< 0.001	0.6 mg/L	Yes
m&p -Xylene	10	< 0.002	< 0.002	< 0.002	0.6 mg/L	Yes

6.2.10 Table: Pesticides

This table outlines our monitoring program results for pesticides that may pose a risk to human health.

These parameters are measured against the Australian Drinking Water Guidelines 2011 guideline values. (N/A indicates that a guideline value has not been set).

We randomly take samples for these parameters in locality groups to achieve a monitoring spread. We can provide results for specific locations on request.

Pesticides Parameter	Number of samples tested	Minimum mg/L	Average (mg/L)	Maximum (mg/L)	ADWG guideline value (mg/L)	Compliant?
2,4,5-T	5	< 0.00001	< 0.00001	< 0.00001	0.1	Yes
2,4,6-T	5	< 0.00001	< 0.00001	< 0.00001	N/A	N/A
2,4-D	5	< 0.00001	< 0.00001	< 0.00001	0.03	Yes
2,4-DB	5	< 0.00001	< 0.00001	< 0.00001	N/A	N/A
2,6-D	5	< 0.00001	< 0.00001	< 0.00001	N/A	N/A
4-CPA	5	< 0.00001	< 0.00001	< 0.00001	N/A	N/A
Aldrin	5	< 0.00001	< 0.00001	< 0.00001	0.0003	Yes
Ametryn	5	< 0.002	< 0.002	< 0.002	0.07	Yes
AMPA	5	< 0.03	< 0.03	< 0.03	N/A	N/A
Atrazine	5	< 0.002	< 0.002	< 0.002	0.02	Yes
Bentazone	5	< 0.00001	< 0.00001	< 0.00001	0.4	Yes
BHC (Alpha Isomer)	5	< 0.00005	< 0.00005	< 0.00005	N/A	N/A
BHC (Beta Isomer)	5	< 0.00005	< 0.00005	< 0.00005	N/A	N/A
BHC (Delta Isomer)	5	< 0.00005	< 0.00005	< 0.00005	N/A	N/A
Bromoxynil	5	< 0.00001	< 0.00001	< 0.00001	0.01	Yes
Chlordane	5	< 0.00001	< 0.00001	< 0.00001	0.002	Yes
cis-Chlordane	5	< 0.00001	< 0.00001	< 0.00001	0.002	Yes

Pesticides Parameter	Number of samples tested	Minimum mg/L	Average (mg/L)	Maximum (mg/L)	ADWG guideline value (mg/L)	Compliant?
Clopyralid	5	< 0.00005	< 0.00005	< 0.00005	2	Yes
DDD	5	< 0.00006	< 0.00006	< 0.00006	N/A	N/A
DDE	5	< 0.00006	< 0.00006	< 0.00006	N/A	N/A
DDT	5	< 0.00006	< 0.00006	< 0.00006	0.009	Yes
Dicamba	5	< 0.00001	< 0.00001	< 0.00001	0.1	Yes
Dichlorprop	5	< 0.00001	< 0.00001	< 0.00001	0.1	Yes
Dieldrin	5	< 0.00001	< 0.00001	< 0.00001	0.0003	Yes
Dinoseb	5	< 0.00001	< 0.00001	< 0.00001	N/A	N/A
Endosulphan I	5	< 0.00005	< 0.00005	< 0.00005	0.02	Yes
Endosulphan II	5	< 0.00005	< 0.00005	< 0.00005	0.02	Yes
Endosulphan Sulphate	5	< 0.00005	< 0.00005	< 0.00005	0.02	Yes
Endrin	5	< 0.0001	< 0.0001	< 0.0001	N/A	N/A
Endrin Aldehyde	5	< 0.0001	< 0.0001	< 0.0001	N/A	N/A
Endrin Ketone	5	< 0.00005	< 0.00005	< 0.00005	N/A	N/A
Fluroxypyr	5	< 0.00001	< 0.00001	< 0.00001	N/A	N/A
Glyphosate	5	< 0.03	< 0.03	< 0.03	1	Yes
Heptachlor	5	< 0.00005	< 0.00005	< 0.00005	0.0003	Yes
Heptachlor epoxide	5	< 0.00005	< 0.00005	< 0.00005	0.0003	Yes
Hexachlorobenzene	5	< 0.000002	< 0.000002	< 0.000002	N/A	N/A
Lindane	5	< 0.00005	< 0.00005	< 0.00005	0.01	Yes
MCPA	5	< 0.00001	< 0.00001	< 0.00001	0.04	Yes
MCPB	5	< 0.00001	< 0.00001	< 0.00001	N/A	N/A
Mecoprop	5	< 0.00001	< 0.00001	< 0.00001	N/A	N/A
Methoxychlor	5	< 0.0002	< 0.0002	< 0.0002	0.3	Yes

Pesticides Parameter	Number of samples tested	Minimum mg/L	Average (mg/L)	Maximum (mg/L)	ADWG guideline value (mg/L)	Compliant?
Oxy-Chlordane	5	< 0.00001	< 0.00001	< 0.00001	0.002	Yes
Picloram	5	< 0.0001	< 0.0001	< 0.0001	0.3	Yes
Prometon	5	< 0.002	< 0.002	< 0.002	N/A	N/A
Prometryne	5	< 0.002	< 0.002	< 0.002	N/A	N/A
Propazine	5	< 0.002	< 0.002	< 0.002	0.05	Yes
Silvex (2,4,5-TP)	5	< 0.00001	< 0.00001	< 0.00001	N/A	N/A
Simazine	5	< 0.002	< 0.002	< 0.002	0.02	Yes
Simetryn	5	< 0.002	< 0.002	< 0.002	N/A	N/A
Terbuthylazine	5	< 0.002	< 0.002	< 0.002	0.01	Yes
Terbutryn	5	< 0.002	< 0.002	< 0.002	0.4	Yes
trans-Chlordane	5	< 0.00001	< 0.00001	< 0.00001	0.002	Yes
Triclopyr	5	< 0.00001	< 0.00001	< 0.00001	0.02	Yes

6.3 Aesthetic characteristics

The tables in this section present our 2024–25 monitoring program results for aesthetic water quality parameters that don't pose a risk to human health.

We measure these standards against the Australian Drinking Water Guidelines 2011 guideline values. Many of these parameters only require infrequent sampling because the results don't vary significantly between years and localities.

We compare all data in these tables to the previous 2 years' data, with no discernible differences noted in averages when analysed and trended.

All levels have remained consistently below the maximums specified in the Australian Drinking Water Guidelines 2011 over the 3-year period. Results for previous years are available in our water quality annual reports on our website.

6.3.1 Table: Colour (apparent)

Colour in water results from dissolved organic matter (humic and fulvic acids), which come from soils and decaying vegetation in catchments.

There are 2 ways to measure colour:

- Apparent colour is measured without filtration and is more likely to reflect what our customers see. This is the parameter we use.
- True' colour is measured after filtering the water to remove the particulate matter (turbidity).

Apparent colour		Frequency of sampling	Number of samples tested	Average Hounsfield unit (HU)	Minimum HU	Maximum HU	Compliant?
Locality number	Locality name						
L360	Balnarring	Twice per month	24	< 2	3.5	8	Yes
L570	Bayswater	Twice per month	24	< 2	4.9	12	Yes
L680	Beaumaris	Twice per month	24	< 2	3.2	6	Yes
L581	Belgrave	Twice per month	24	< 2	4.6	8	Yes
L310	Berwick	Twice per month	26	< 2	2.8	6	Yes

Apparent colour		Frequency of sampling	Number of samples tested	Average Hounsfield unit (HU)	Minimum HU	Maximum HU	Compliant?
Locality number	Locality name						
L350	Bittern	Twice per month	24	< 2	2.7	6	Yes
L670	Brighton / Heatherton	Twice per month	24	< 2	3.7	8	Yes
L270	Bunyip	Twice per month	24	< 2	2.1	4	Yes
L322	Carrum Downs	Twice per month	24	< 2	3.4	6	Yes
L610	Caulfield	Twice per month	24	< 2	4.8	14	Yes
L650	Chelsea	Twice per month	24	< 2	3.3	6	Yes
L720	Clyde North	Twice per month	24	< 2	3.9	8	Yes
L260	Cora Lynn	Twice per month	24	< 2	1.5	6	Yes
L320	Cranbourne	Twice per month	24	< 2	3.8	14	Yes
L640	Dandenong	Twice per month	24	< 2	3.6	6	Yes
L660	Dandenong North	Twice per month	24	< 2	4.7	8	Yes
L321	Devon Meadows	Twice per month	24	< 2	3.4	8	Yes
L430	Dromana	Twice per month	24	< 2	2.2	4	Yes
L580	Ferntree Gully	Twice per month	24	< 2	5.1	10	Yes
L390	Frankston	Twice per month	24	< 2	2.7	4	Yes
L400	Frankston South	Twice per month	24	< 2	3.1	6	Yes
L271	Garfield	Twice per month	24	< 2	2.2	8	Yes
L630	Hallam	Twice per month	24	< 2	3.2	6	Yes
L340	Hastings	Twice per month	24	< 2	3.3	6	Yes
L323	Karingal	Twice per month	24	< 2	3.5	6	Yes
L300	Koo Wee Rup	Twice per month	24	< 2	2.0	4	Yes
L450	Lang Lang	Twice per month	24	< 2	2.2	4	Yes
L710	Moorooduc	Twice per month	24	< 2	2.5	6	Yes
L690	Mordialloc	Twice per month	24	< 2	3.9	8	Yes
L410	Mornington	Twice per month	24	< 2	2.6	6	Yes
L420	Mount Martha	Twice per month	24	< 2	2.4	6	Yes

Apparent colour		Frequency of sampling	Number of samples tested	Average Hounsfield unit (HU)	Minimum HU	Maximum HU	Compliant?
Locality number	Locality name						
L290	Pakenham	Twice per month	24	< 2	3.3	8	Yes
L700	Rowville	Twice per month	24	< 2	4.1	8	Yes
L440	Rye	Twice per month	27	< 2	2.4	4	Yes
L370	Shoreham	Twice per month	24	< 2	2.9	6	Yes
L330	Somerville	Twice per month	24	< 2	3.3	6	Yes
L620	South Melbourne	Twice per month	24	< 2	3.6	10	Yes
L280	Tynong	Twice per month	24	< 2	2.0	6	Yes
L311	Upper Beaconsfield	Twice per month	24	< 2	3.2	6	Yes
L590	Wantirna	Twice per month	24	< 2	5.1	10	Yes
Business total			**965**	**< 2**	**3.3**	**14**	**Yes**

- Compliance with the ADWG means the upper bound of the 95% confidence interval of the mean is less than the guideline value. The ADWG value is 15 HU for true colour, however as we use apparent colour, there is no limit set. All results are still below the true colour limit.

6.3.2 Table: pH

pH is a measure of the acidic or alkaline nature of the water.

The drinking water we supplied complied with the Australian Drinking Water Guidelines 2011 guideline values for pH, which recommend a pH range of 6.5 to 8.5 and up to 9.2 for areas where new cement-lined pipes are present. Cement-lined pipes are common in our service area.

pH Locality number	Locality name	Frequency of sampling	Number of samples tested	Minimum (units)	Average (units)	Maximum (units)	Compliant?
L360	Balnarring	Twice per month	24	7.0	7.5	7.0	Yes
L570	Bayswater	Twice per month	81	6.8	7.3	7.8	Yes
L680	Beaumaris	Twice per month	24	7.3	7.5	7.8	Yes
L581	Belgrave	Twice per month	109	7.2	7.5	8.4	Yes
L310	Berwick	Twice per month	26	6.7	7.3	7.5	Yes
L350	Bittern	Twice per month	24	7.1	7.6	8.1	Yes
L670	Brighton / Heatherton	Twice per month	24	7.1	7.5	7.8	Yes
L270	Bunyip	Twice per month	24	7.0	7.5	7.8	Yes
L322	Carrum Downs	Twice per month	24	7.1	7.5	7.8	Yes
L610	Caulfield	Twice per month	24	7.1	7.4	7.7	Yes
L650	Chelsea	Twice per month	24	7.3	7.5	7.9	Yes
L720	Clyde North	Twice per month	24	6.9	7.4	7.7	Yes
L260	Cora Lynn	Twice per month	24	7.3	7.5	7.8	Yes
L320	Cranbourne	Twice per month	24	7.0	7.3	7.7	Yes
L640	Dandenong	Twice per month	24	7.0	7.3	7.6	Yes
L660	Dandenong North	Twice per month	25	6.9	7.3	7.7	Yes
L321	Devon Meadows	Twice per month	24	6.9	7.5	7.9	Yes
L430	Dromana	Twice per month	24	7.3	7.7	7.9	Yes
L580	Ferntree Gully	Twice per month	24	7.1	7.6	8.3	Yes

pH Locality number	Locality name	Frequency of sampling	Number of samples tested	Minimum (units)	Average (units)	Maximum (units)	Compliant?
L390	Frankston	Twice per month	24	7.2	7.4	7.8	Yes
L400	Frankston South	Twice per month	24	7.2	7.5	7.8	Yes
L271	Garfield	Twice per month	24	7.3	7.6	7.8	Yes
L630	Hallam	Twice per month	24	7.0	7.4	7.8	Yes
L340	Hastings	Twice per month	24	7.4	7.6	7.8	Yes
L323	Karingal	Twice per month	24	7.0	7.5	7.8	Yes
L300	Koo Wee Rup	Twice per month	44	7.2	7.5	7.8	Yes
L450	Lang Lang	Twice per month	24	7.2	7.5	8.0	Yes
L710	Moorooduc	Twice per month	24	7.2	7.5	7.8	Yes
L690	Mordialloc	Twice per month	24	7.2	7.5	7.9	Yes
L410	Mornington	Twice per month	24	7.1	7.5	7.8	Yes
L420	Mount Martha	Twice per month	175	7.1	7.5	7.9	Yes
L290	Pakenham	Twice per month	24	7.2	7.5	7.8	Yes
L700	Rowville	Twice per month	24	7.1	7.5	8.0	Yes
L440	Rye	Twice per month	27	7.1	7.6	8.2	Yes
L370	Shoreham	Twice per month	24	7.1	7.7	8.3	Yes
L330	Somerville	Twice per month	24	7.0	7.4	7.7	Yes
L620	South Melbourne	Twice per month	24	6.9	7.3	7.7	Yes
L280	Tynong	Twice per month	24	7.2	7.5	7.9	Yes
L311	Upper Beaconsfield	Twice per month	24	7.1	7.6	8.3	Yes
L590	Wantirna	Twice per month	24	7.2	7.5	7.8	Yes
	Business total		**1279**	**6.7**	**7.4**	**8.4**	**Yes**

6.3.3 Table: Iron

Iron is a naturally occurring element in water sourced from catchment area soils. It can cause discoloration and staining in plumbing fixtures and laundry.

The drinking water we supplied complied with the Australian Drinking Water Guidelines 2011 guideline values for iron, which recommend an aesthetic limit of 0.3mg/L to minimise these issues.

Iron							
Locality number	Locality name	Frequency of sampling	Number of samples tested	Minimum mg/L	Average mg/L	Maximum mg/L	Compliant?
L360	Balnarring	Twice per month	24	0.02	0.03	0.06	Yes
L570	Bayswater	Twice per month	24	0.05	0.07	0.08	Yes
L680	Beaumaris	Twice per month	24	0.02	0.04	0.07	Yes
L581	Belgrave	Twice per month	24	0.05	0.07	0.09	Yes
L310	Berwick	Twice per month	26	0.02	0.04	0.08	Yes
L350	Bittern	Twice per month	24	0.01	0.03	0.05	Yes
L670	Brighton / Heatherton	Twice per month	24	0.02	0.04	0.1	Yes
L270	Bunyip	Twice per month	24	< 0.01	< 0.01	0.03	Yes
L322	Carrum Downs	Twice per month	24	0.02	0.04	0.08	Yes
L610	Caulfield	Twice per month	24	0.03	*0.06	0.15	Yes
L650	Chelsea	Twice per month	24	0.02	0.04	0.07	Yes
L720	Clyde North	Twice per month	24	0.02	0.04	0.11	Yes
L260	Cora Lynn	Twice per month	24	< 0.01	< 0.01	0.02	Yes
L320	Cranbourne	Twice per month	24	0.02	0.04	0.13	Yes
L640	Dandenong	Twice per month	24	0.03	0.04	0.07	Yes
L660	Dandenong North	Twice per month	24	0.05	0.06	0.14	Yes
L321	Devon Meadows	Twice per month	24	0.02	0.05	0.18	Yes
L430	Dromana	Twice per month	24	0.01	0.02	0.03	Yes
L580	Ferntree Gully	Twice per month	24	0.05	0.07	0.09	Yes

Iron							
Locality number	Locality name	Frequency of sampling	Number of samples tested	Minimum mg/L	Average mg/L	Maximum mg/L	Compliant?
L390	Frankston	Twice per month	24	0.02	0.04	0.07	Yes
L400	Frankston South	Twice per month	24	0.02	0.04	0.07	Yes
L271	Garfield	Twice per month	24	< 0.01	< 0.01	< 0.01	Yes
L630	Hallam	Twice per month	24	0.02	0.04	0.08	Yes
L340	Hastings	Twice per month	24	0.01	0.03	0.05	Yes
L323	Karingal	Twice per month	24	0.02	0.04	0.09	Yes
L300	Koo Wee Rup	Twice per month	24	< 0.01	< 0.01	0.03	Yes
L450	Lang Lang	Twice per month	24	< 0.01	< 0.01	0.02	Yes
L710	Moorooduc	Twice per month	24	0.01	0.03	0.07	Yes
L690	Mordialloc	Twice per month	24	0.02	0.05	0.12	Yes
L410	Mornington	Twice per month	24	0.01	0.03	0.05	Yes
L420	Mount Martha	Twice per month	24	0.02	0.03	0.03	Yes
L290	Pakenham	Twice per month	24	0.02	0.04	0.1	Yes
L700	Rowville	Twice per month	24	0.02	0.05	0.1	Yes
L440	Rye	Twice per month	27	0.01	0.02	0.04	Yes
L370	Shoreham	Twice per month	24	0.02	0.03	0.06	Yes
L330	Somerville	Twice per month	24	0.02	0.04	0.06	Yes
L620	South Melbourne	Twice per month	24	< 0.01	0.04	0.09	Yes
L280	Tynong	Twice per month	24	< 0.01	< 0.01	0.03	Yes
L311	Upper Beaconsfield	Twice per month	24	0.02	0.05	0.26	Yes
L590	Wantirna	Twice per month	24	0.05	0.06	0.08	Yes
	Business total		**965**	**< 0.01**	**0.03**	**0.26**	**Yes**

*The Caulfield result initially measured at 0.55mg/L. When flushed and re-tested it showed a reduced level of 0.06mg/L.

6.3.4 Table: Alkalinity

Alkalinity reflects the water's capacity to buffer and maintain a stable pH. It's an important water quality parameter as it indicates how pH may change as water moves through the distribution network.

We measure alkalinity as mg/L of calcium carbonate equivalent. Melbourne's water supplies typically have low alkalinity. 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.

Alkalinity		Number of samples tested	Number of non-compliant results	Minimum mg/L	Average mg/L	Maximum mg/L	Compliant?
Locality number	Locality name						
L310	Berwick	1	0	13	13	13	Yes
L320	Cranbourne	1	0	14	14	14	Yes
L350	Bittern	1	0	17	17	17	Yes
L390	Frankston	1	0	18	18	18	Yes
L440	Rye	1	0	23	23	23	Yes
L570	Bayswater	1	0	10	10	10	Yes
L581	Belgrave	1	0	13	13	13	Yes
L590	Wantirna	1	0	9	9	9	Yes
L610	Caulfield	2	0	12	13	13	Yes
L620	South Melbourne	2	0	13	13	13	Yes
L630	Hallam	1	0	16	16	16	Yes
L650	Chelsea	1	0	14	14	14	Yes
L660	Dandenong North	2	0	11	12	12	Yes
L670	Brighton / Heatherton	3	0	12	15	18	Yes
L690	Mordialloc	1	0	16	16	16	Yes
	Business total	**20**	**0**	**9**	**14**	**23**	**Yes**

6.3.5 Table: Inorganic parameters

These inorganic parameters are measured against the aesthetic guideline values in the Australian Drinking Water Guidelines 2011 (ADWG), where available. N/A indicates that a guideline value has not been set.

For these parameters, the samples are taken randomly in groups of localities to achieve the monitoring spread. We can provide details of the specific locations upon request. All results are in mg/L unless indicated.

Parameter	Number of samples tested	Minimum mg/L	Average mg/L	Maximum mg/L	ADWG guideline value (mg/L)	Compliant?
Aluminium	21	0.02	0.04	0.08	0.2	Yes
Ammonia	5	< 0.1	< 0.1	< 0.1	0.5	Yes
Antinomy	6	< 0.001	< 0.001	< 0.001	0.003	Yes
Arsenic	6	< 0.001	< 0.001	< 0.001	0.01	Yes
Barium	6	0.011	0.014	0.023	2	Yes
Beryllium	6	< 0.001	< 0.001	< 0.001	0.06	N/A
Cadmium	6	< 0.0002	< 0.0002	< 0.0002	0.002	Yes
Calcium	20	3.6	5.2	8.5	N/A	N/A
Chloride	5	7	9	16	250	Yes
Chromium	6	< 0.001	< 0.001	< 0.001	0.05	Yes
Copper	21	0.002	0.019	0.074	1	Yes
Cyanide	5	< 0.005	< 0.005	< 0.005	0.08	Yes
Dissolved Oxygen	9	6.9	9.3	10.9	N/A	N/A
Electrical Conductivity (uS/cm)	4865	54	83	170	~780 µS/cm	Yes
Hardness	20	15	18	27	200	Yes
Magnesium	20	1	1.2	1.6	N/A	N/A
Mercury	6	< 0.0001	< 0.0001	< 0.0001	0.001	Yes
Molybdenum	11	< 0.001	< 0.001	< 0.001	0.05	Yes
Nickel	6	< 0.001	< 0.001	< 0.001	0.02	Yes
Nitrate	5	0.09	0.18	0.32	50	Yes

Parameter	Number of samples tested	Minimum mg/L	Average mg/L	Maximum mg/L	ADWG guideline value (mg/L)	Compliant?
Nitrite	5	< 0.002	< 0.002	< 0.002	3	Yes
Potassium	5	0.5	0.6	0.9	N/A	N/A
Selenium	6	< 0.001	< 0.001	< 0.001	0.01	Yes
Silica	5	4.6	5.1	6.3	80	Yes
Sodium	5	4.1	5.1	7.9	180	Yes
Sulphate	5	1.4	3.1	8.9	250	Yes
Suspended Solids	15	< 2	< 2	2	N/A	N/A
Total Dissolved Solids	20	35	47	82	600	Yes
Total Organic Carbon	5	1.2	1.5	1.9	N/A	N/A
Total Phosphorus	5	< 0.002	0.01	0.011	N/A	N/A
Zinc	21	0.002	0.005	0.016	3	Yes

7. Special project monitoring

7.1 Table: PFAS results

PFAS (per and polyfluoroalkyl substances) are a group of human-made substances in many household products, including non-stick pans, sunscreen, raincoats and make up. Known as ‘forever chemicals’, they’ve been around since the mid-1900s and are of concern because they can stay in both the environment and humans for a long time.

Laboratories around the world can detect tiny amounts of PFAS. They’re commonly detected at trace levels in groundwater, surface water, soils and in the household products mentioned above.

Due to increased concerns from our customers about PFAS, South East Water worked in collaboration with Melbourne Water, Yarra Valley Water and Greater Western Water to undertake a comprehensive monitoring project for a range of PFAS parameters.

As our bulk water supplier, Melbourne Water monitored for PFAS in the drinking water supply catchments.

The three water retailers worked together to identify several key sample locations at which to test the water as it enters the distribution network from Melbourne Water. This enabled us to validate the upstream monitoring being undertaken by Melbourne Water. The monitoring points included interfaces at both the protected and unprotected catchment sources.

Our 2024–25 monitoring program did not detect PFAS. The testing protocols can detect PFAS at levels as low as 0.002µg/L.

The results in the table below are shown in micrograms per litre (µg/L).

All results in the previous tables in this report have been expressed as milligrams per litre (mg/L). For reference, 0.002µg/L is equivalent to 0.000002mg/L.

For more information visit the Monitoring for PFAS page on our website.

PFAS Parameters	Number of samples tested	Minimum (µg/L)	Average (µg/L)	Maximum (µg/L)	Previous ADWG guideline value (µg/L)	Updated ADWG guideline value (µg/L)	Complied with ADWG?
Perfluorododecane sulfonic acid (PFDoDS)	38	< 0.025	< 0.025	< 0.025	N/A	N/A	N/A
Perfluoro-4-ethylcyclohexanesulfonic acid (PFECHS) ug/L	38	< 0.01	< 0.01	< 0.01	N/A	N/A	N/A
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	38	< 0.01	< 0.01	< 0.01	N/A	N/A	N/A
9Cl-PF3ONS	38	< 0.01	< 0.01	< 0.01	N/A	N/A	N/A
11Cl-PF3OUdS	38	< 0.01	< 0.01	< 0.01	N/A	N/A	N/A
Tetrafluoro-2-(heptafluoropropoxy)propanoic acid (GenX)	38	< 0.01	< 0.01	< 0.01	N/A	N/A	N/A
Perfluoro-3-methoxypropanoic acid (PFMPA)	38	< 0.01	< 0.01	< 0.01	N/A	N/A	N/A
Perfluoro-4-methoxybutanoic acid (PFMBA)	38	< 0.01	< 0.01	< 0.01	N/A	N/A	N/A
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	38	< 0.01	< 0.01	< 0.01	N/A	N/A	N/A

PFAS Parameters	Number of samples tested	Minimum (µg/L)	Average (µg/L)	Maximum (µg/L)	Previous ADWG guideline value (µg/L)	Updated ADWG guideline value (µg/L)	Complied with ADWG?
Dodecafluoro-3H-4,8-dioxanonanoic acid (ADONA)	38	< 0.01	< 0.01	< 0.01	N/A	N/A	N/A
3:3 Fluorotelomer carboxylic acid (3:3 FTCA)	38	< 0.01	< 0.01	< 0.01	N/A	N/A	N/A
5:3 Fluorotelomer carboxylic acid (5:3 FTCA)	38	< 0.01	< 0.01	< 0.01	N/A	N/A	N/A
7:3 Fluorotelomer carboxylic acid (7:3 FTCA)	38	< 0.01	< 0.01	< 0.01	N/A	N/A	N/A
6:2 Fluorotelomer carboxylic acid (6:2 FTCA / FHEA)	38	< 0.01	< 0.01	< 0.01	N/A	N/A	N/A
8:2 Fluorotelomer carboxylic acid (8:2 FTCA / FOEA)	38	< 0.01	< 0.01	< 0.01	N/A	N/A	N/A
10:2 Fluorotelomer carboxylic acid (10:2 FTCA / FDEA)	38	< 0.01	< 0.01	< 0.01	N/A	N/A	N/A
6:2 Fluorotelomer unsaturated carboxylic acid (6:2 FTUCA)	38	< 0.01	< 0.01	< 0.01	N/A	N/A	N/A
8:2 Fluorotelomer unsaturated carboxylic acid (8:2 FTUCA)	38	< 0.01	< 0.01	< 0.01	N/A	N/A	N/A

PFAS Parameters	Number of samples tested	Minimum (µg/L)	Average (µg/L)	Maximum (µg/L)	Previous ADWG guideline value (µg/L)	Updated ADWG guideline value (µg/L)	Complied with ADWG?
10:2 Fluorotelomer unsaturated carboxylic acid (10:2 FTUCA)	38	< 0.01	< 0.01	< 0.01	N/A	N/A	N/A
6:2 Fluorotelomer sulfonamide alkylbetaine (6:2 FTAB)	38	< 0.01	< 0.01	< 0.01	N/A	N/A	N/A
6:2 Polyfluoroalkyl phosphoric acid diester (6:2 diPAP)	38	< 0.025	< 0.025	< 0.025	N/A	N/A	N/A
8:2 Polyfluoroalkyl phosphoric acid diester (8:2 diPAP)	38	< 0.025	< 0.025	< 0.025	N/A	N/A	N/A
6:2/8:2 Polyfluoroalkyl phosphoric acd diester (6:2/8 diPAP)	38	< 0.025	< 0.025	< 0.025	N/A	N/A	N/A
Perfluorobutane sulfonic acid (PFBS)	38	< 0.002	< 0.002	< 0.002	N/A	1	Yes
Perfluoropentane sulfonic acid (PFPeS)	38	< 0.002	< 0.002	< 0.002	N/A	N/A	N/A
Perfluorohexane sulfonic acid (PFHxS)	38	< 0.002	< 0.002	< 0.002	N/A	0.03	Yes
Perfluoroheptane sulfonic acid (PFHpS)	38	< 0.002	< 0.002	< 0.002	N/A	N/A	N/A

PFAS Parameters	Number of samples tested	Minimum (µg/L)	Average (µg/L)	Maximum (µg/L)	Previous ADWG guideline value (µg/L)	Updated ADWG guideline value (µg/L)	Complied with ADWG?
Perfluorooctane sulfonic acid (PFOS)	38	< 0.002	< 0.002	< 0.002	N/A	0.008	Yes
Perfluorononane sulfonic acid (PFNS)	38	< 0.002	< 0.002	< 0.002	N/A	N/A	N/A
Perfluorodecane sulfonic acid (PFDS)	38	< 0.002	< 0.002	< 0.002	N/A	N/A	N/A
Perfluoropropane sulfonic acid (PFPrS)	38	< 0.01	< 0.01	< 0.01	N/A	N/A	N/A
Perfluorobutanoic acid (PFBA)	38	< 0.01	< 0.01	< 0.01	N/A	N/A	N/A
Perfluoropentanoic acid (PFPeA)	38	< 0.002	< 0.002	< 0.002	N/A	N/A	N/A
Perfluorohexanoic acid (PFHxA)	38	< 0.002	< 0.002	< 0.002	N/A	N/A	N/A
Perfluoroheptanoic acid (PFHpA)	38	< 0.002	< 0.002	< 0.002	N/A	N/A	N/A
Perfluorooctanoic acid (PFOA)	38	< 0.002	< 0.002	< 0.002	0.560	0.2	Yes
Perfluorononanoic acid (PFNA)	38	< 0.002	< 0.002	< 0.002	N/A	N/A	N/A
Perfluorodecanoic acid (PFDA)	38	< 0.002	< 0.002	< 0.002	N/A	N/A	N/A

PFAS Parameters	Number of samples tested	Minimum (µg/L)	Average (µg/L)	Maximum (µg/L)	Previous ADWG guideline value (µg/L)	Updated ADWG guideline value (µg/L)	Complied with ADWG?
Perfluoroundecanoic acid (PFUnDA)	38	< 0.002	< 0.002	< 0.002	N/A	N/A	N/A
Perfluorododecanoic acid (PFDoDA)	38	< 0.002	< 0.002	< 0.002	N/A	N/A	N/A
Perfluorotridecanoic acid (PFTrDA)	38	< 0.002	< 0.002	< 0.002	N/A	N/A	N/A
Perfluorotetradecanoic acid (PFTeDA)	38	< 0.005	< 0.005	< 0.005	N/A	N/A	N/A
Perfluorohexadecanoic acid (PFHxDA)	38	< 0.005	< 0.005	< 0.005	N/A	N/A	N/A
Perfluorooctane sulfonamide (FOSA)	38	< 0.002	< 0.002	< 0.002	N/A	N/A	N/A
N-Methyl perfluorooctane sulfonamide (MeFOSA)	38	< 0.005	< 0.005	< 0.005	N/A	N/A	N/A
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	38	< 0.005	< 0.005	< 0.005	N/A	N/A	N/A
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	38	< 0.005	< 0.005	< 0.005	N/A	N/A	N/A

PFAS Parameters	Number of samples tested	Minimum (µg/L)	Average (µg/L)	Maximum (µg/L)	Previous ADWG guideline value (µg/L)	Updated ADWG guideline value (µg/L)	Complied with ADWG?
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	38	< 0.005	< 0.005	< 0.005	N/A	N/A	N/A
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA	38	< 0.002	< 0.002	< 0.002	N/A	N/A	N/A
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	38	< 0.002	< 0.002	< 0.002	N/A	N/A	N/A
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	38	< 0.005	< 0.005	< 0.005	N/A	N/A	N/A
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	38	< 0.005	< 0.005	< 0.005	N/A	N/A	N/A
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	38	< 0.005	< 0.005	< 0.005	N/A	N/A	N/A
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	38	< 0.005	< 0.005	< 0.005	N/A	N/A	N/A
Sum of PFAS	**38**	**< 0.002**	**< 0.002**	**< 0.002**	**N/A**	**N/A**	**N/A**
Sum of PFHxS and PFOS	**38**	**< 0.002**	**< 0.002**	**< 0.002**	**0.07**	**N/A**	**Yes**

8. Regulatory reporting to the Department of Health

8.1 Section 18 of the Act

“A water supplier must notify the Department of Health in writing if it becomes aware that the drinking water it is supplying to another person does not comply, or is not likely to comply, with any relevant water quality standard and must do so within 10 days after it becomes aware of that fact.”

During 2024-25, we didn’t notify Department of Health about any water quality events in accordance with Section 18 of the Act.

8.2 Section 22 of the Act

“This section applies if an officer of a water supplier, water storage manager or council believes or suspects, on reasonable grounds, that water supplied, or to be supplied, for drinking purposes:

a. may be the cause of an illness; or

b. may be the means by which an illness is being, has been or will be, transmitted; or

c. may contain any pathogen, substance, chemical or blue-green algae toxin, whether alone or in combination, at levels that may pose a risk to human health; or

d. may cause widespread public complaint.’

(2) On forming that belief or suspicion, the officer must immediately report his or her belief or suspicion to the Secretary and must make the report in the form required by the Secretary.’

During 2024–25, we notified the Department of Health about 4 water quality events in accordance with Section 22 of the Act.

8.2.1 Section 22 notifications

Complaints from customers in several parts of Cranbourne

On 1 July 2024, South East Water received widespread customer complaints from the Cranbourne tank distribution zone in the Cranbourne locality including the suburbs of Cranbourne, Cranbourne East, Cranbourne West and Cranbourne South.

The issue was being caused by repairs being carried out on a 450mm water main in the area during the day rather than at night. The operation of valves on the large 450mm main resulted in water being forced through the smaller reticulation mains, creating high velocities and flow reversals, uplifting existing natural pipe sediment.

To confirm the integrity of our network, free chlorine and turbidity samples were taken by field technicians across the affected area. The sampling locations were chosen to represent the water quality at various points in which the quality may differ within affected area. These considerations included location, street type (e.g. courts), main sizes and critical customer locations. Samples were also taken from a mix of hydrants and customer sample taps.

Over the 3 days of the incident, 132 customers service pipes were checked and flushed if required, 11 critical customers in the area were checked on and one furphy tank was deployed to the area for alternative water supply.

It was concluded that system integrity was maintained due to the positive pressure and adherence to standard leak repair procedures. This ensured a very low likelihood of external contamination entering the pipe during the repair work. Additionally, the relatively high chlorine residual in the zone provided an extra layer of protection.

Complaints from customers in Cranbourne North

On 23 August 2024, South East Water received widespread customer complaints from a block of streets in Cranbourne North, located in the Hallam Pressure Reducing distribution zone in the Berwick Locality.

The complaints were traced to a planned repair on a nearby 225mm water main. Valve operations required for the repair forced water through smaller reticulation mains, generating high velocities and flow reversals that disturbed and re-suspended existing pipe sediment.

To verify network integrity, a water quality engineer collected free chlorine and turbidity samples at selected sites across the affected area, chosen to represent likely variations in water quality. Flushing was carried out until 9pm to remove suspended sediment. Low overnight water usage allowed sediment to resettle in the mains, but follow-up sampling the next day confirmed that water quality had returned to normal. Across the 24-hour incident period, 34 customer service pipes were inspected and flushed as necessary.

We concluded that system integrity was maintained due to the positive pressure and adherence to standard leak repair procedures. This ensured a very low likelihood of external contamination entering the pipe during the repair work. Additionally, the relatively high chlorine residual (an average of 0.9 mg/l in the zone) provided an extra layer of protection.

To prevent this issue from recurring, a quality audit of the contractor has been conducted, along with a refresher training program for contractors and internal staff, including after-hours and network operations control center personnel.

Shoreham Boil Water Advisory (BWA)

On 20 March 2025 at 10:30 am, a dead rodent was discovered in Shoreham Basin (WR160) during a routine inspection by specialist contractors using a remotely operated vehicle (ROV). Our Water Quality team was immediately notified. Within 30 minutes, employees conducted a sanitary survey of the surrounding area and gathered anecdotal evidence from neighbours that indicated a local rodent issue, use of Warfarin bait, and nearby cattle grazing.

Given the potential public health implications, a Section 22 notification was submitted to the Department of Health under the Safe Drinking Water Act.

These 2 key risks were assessed:

- **Chemical (Warfarin)**: Based on dilution modelling, chemical contamination was deemed negligible and below USEPA Reference Dose thresholds.
- **Pathogen (Cryptosporidium)**: While *E. coli* and Giardia were ruled out due to sufficient chlorine contact time prior to reaching the first customer downstream, Cryptosporidium could not be excluded due to the presence of cattle (a known host), rats (potential mechanical vectors), and reported water-seeking behaviour in poisoned rodents.

As a precautionary measure, the basin was taken offline, and a Boil Water Advisory (BWA) was issued for customers in the Shoreham, Point Leo and Flinders suburbs.

Bottled water and tankered supplies were sourced and made available for customers at key locations in impacted suburbs. Social media communications, visual messaging boards, SMS messaging, and letter drops were used to notify customers in the advisory area. The VicEmergency App was also used to alert customers.

Although no microbial contamination was detected in any water samples (in the basin and the pipe network), and no abnormalities in chlorine levels or disinfection processes were found, the advisory remained in place due to known breaches in basin integrity and elevated uncertainty about possible contamination vectors. A literature review indicated very low protozoan contamination risk from rodents in urban systems, but the rural context and the presence of cattle increased concern.

A Quantitative Microbial Risk Assessment later assessed the actual risk as low. Following flushing to the volume of 2 full turnovers of the network, and clear results from both pre- and post-corrective action sampling, the BWA was lifted after 2 days. The basin remained offline until the end of July 2025 so that repairs and upgrade works could be undertaken.

Complaints about discoloured water due to the presence of manganese

In March 2025, seasonal changes in water chemistry at Melbourne Water's Cardinia Reservoir led to elevated levels of soluble manganese entering the South East Water network.

Although Melbourne Water sample results remained within the AWDG limits, the levels were significantly higher than previously recorded.

Upon identifying the issue, Melbourne Water adjusted the offtake gate at Cardinia, which successfully reduced manganese levels to normal ranges. However, the soluble manganese oxidised upon chlorination and introduction into the network, forming black, sticky deposits that adhered to pipe walls—particularly in PVC and PE pipes—causing widespread water discolouration.

As Cardinia is a major source of supply for the South East Water network, the issue has affected large areas of our customer base ranging across St Kilda, Parkdale, Clyde North, Lyndhurst, Berwick, Officer and Pakenham. Despite multiple rounds of flushing and reactive air

scouring, persistent discolouration remains in some areas. Testing in locations with repeat complaints has confirmed manganese, not typical sediment, as the cause.

Between April and May 2025, we received over 260 discoloured water complaints above normal levels that we attributed to manganese, with an increase above baseline levels in June also experienced. Due to the nature of manganese, conventional flushing often proves ineffective. In response, we have undertaken targeted customer visits, expanded testing, and escalated mains cleaning efforts to include swabbing of affected pipes.

We continue to collaborate closely with Melbourne Water to address the root cause and are actively exploring further mitigation strategies. The incident has significantly impacted customer experience and contributed to exceedance of our annual complaints target. Elevated complaint levels may persist for some time, as residual manganese in the network continues to be mobilised by normal operational changes.

9. Customer complaints and enquiries about water quality

9.1 Responding to our customers

We try to minimise the number of complaints we receive by:

- responding to water quality complaints in a timely manner.
- ensuring all major shutdowns are conducted at night to reduce impact on the system.
- working closely with our contractor to improve the shutdown and recharging of water mains following bursts. Multiple workshops have been held this year to improve this process.
- working with the water carters to ensure only correct hydrants are used to fill the tankers.
- maintaining a fully closed system.
- working closely with our wholesaler, Melbourne Water, to ensure all major construction works have minimal impact on water quality.
- using secondary chlorinators for low level secondary disinfection.
- using COLT units at key locations around our system.
- using a water quality alert system to provide early warnings of potential incidents.
- ensuring all new mains are swabbed, flushed, and chlorinated where required and tested for several key water quality parameters by an independent laboratory so that we start with a clean asset before connections are made.

Our dedicated and highly trained Contact Centre team members handle all customer complaints about water quality. In all instances, the nature of the complaint determines our response, ranging from detailed investigative work to providing technical information.

Our specialised field employees respond to customer complaints with appropriate knowledge and skills to ensure customer satisfaction.

9.2 Customer complaints

The Essential Services Commission (ESC) advised that we expand our definition of a complaint in 2022-23, which has resulted in an increased number of water quality complaints registered.

The ESC advised that we include all enquiries in our reported complaint numbers. Under a previous definition, a complaint was only recorded when an action was required. The updated definition includes examples where information passed over the phone and recorded as an enquiry is now counted as a complaint.

Under the Essential Services Commission Water Industry Standard, a complaint is defined as ‘a written or verbal expression of dissatisfaction about an action, proposed action or failure to act by a water business, its employees or contractors, requiring a resolution (as per AS/NZS 10002:2022)’.

An enquiry is defined by the same standard as ‘a written or verbal approach by a customer which can be satisfied by the water business providing written or verbal information, advice, assistance, clarification, explanation or referral about a matter’.

9.2.1 Table: Customer complaints and enquiries (year on year comparison)

This year our complaint and enquiry result was 0.39 per 100 properties, which is above the Essential Services Commission (ESC) target (0.27 per 100 properties).

Type of complaint	Number of complaints			Comparison with 2023–24 reporting period	Comments
	2022–23	2023–24	2024-25		
Alleged illness	26	22	19	14% decrease	All illness complaints were investigated thoroughly. No illness complaints have been found to be attributed to the water supply.

Type of complaint	Number of complaints			Comparison with 2023–24 reporting period	Comments
	2022–23	2023–24	2024-25		
Discoloured water (Brown, blue, black, yellow)	1880 (840 complaints; 1040 enquiries)	1985 (831 complaints; 1154 enquiries)	2839 (1289 complaints; 1550 enquiries)	43% increase	Brown/black water can result from natural sediment in pipes resuspending after water supply disruption. We're working closely with our maintenance team and contractors to reduce its incidence. Blue and yellow water are caused by old copper/galvanised pipes, which are common in Melbourne homes. The significant increase in this year's discoloured complaints is due primarily to the water quality events in Cranbourne and incidences of manganese. More detail is available in Section 8 – Regulatory Reporting.
Taste and odour	242	226	276	22% increase	Most of these complaints are attributed to chlorine. Due to our chlorination strategy, we have seen an increase in chlorine residuals across our entire network. While we have worked hard to make the changes slowly, some

Type of complaint	Number of complaints			Comparison with 2023–24 reporting period	Comments
	2022–23	2023–24	2024-25		
					customers have noticed the change.
White water	88	51	81	59% increase	White water is caused by air that gets trapped when a main is recharged following leak repairs or other work. We'll continue to work closely with the maintenance team with the aim of reducing these events.
Other	152 (77 complaints; 75 enquiries)	78 (55 complaints; 23 enquiries)	111 (73 complaints; 38 enquiries)	42% increase	These complaints cover a broad range of enquiries, from pH-stained fittings to requests for data or information.
Total	**2388**	**2362**	**3326**		

9.2.2 Table: Customer complaints by water sampling locality

Locality number	Locality name	Customer count (property connections)	Brown	Blue	Black	White	Yellow	Chlorine	Earthy	Musty	Petro	Stale	Other	Suspected illness	Other	Total number of reports	Complaints (per 100 customers)
260	Cora Lynn	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
270	Bunyip	2,240	1	0	0	0	0	0	0	0	0	0	1	0	0	2	0.09
271	Garfield	843	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
280	Tynong	745	0	0	0	0	0	0	0	1	0	0	0	0	1	2	0.27
290	Pakenham	21,845	50	1	1	2	2	0	0	1	1	0	9	0	0	67	0.31
300	Koo-Wee-Rup	1,539	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0.06
310	Berwick	59,258	122	0	1	13	3	11	1	0	2	0	9	2	6	170	0.29
311	Upper Beaconsfield	940	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0.11
320	Cranbourne	36,238	195	1	0	1	0	9	1	2	1	1	9	0	2	222	0.61
321	Devon Meadows	6,821	1	0	0	0	0	3	1	0	0	0	1	0	1	7	0.10
322	Carrum Downs	13,947	33	1	0	0	2	1	0	0	0	0	1	0	1	39	0.28
323	Karingal	4,959	3	0	0	0	0	1	0	0	0	0	2	0	0	6	0.12
330	Somerville	7,793	9	0	0	3	1	3	1	0	0	0	0	0	0	17	0.22
340	Hastings	5,555	3	0	0	1	0	3	0	0	0	0	0	0	0	7	0.13
350	Bittern	2,648	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0.04
360	Balnarring	2,811	1	0	0	0	0	0	0	0	0	0	1	0	0	2	0.07
370	Shoreham	1,601	0	0	0	1	1	0	1	0	0	0	0	1	0	4	0.25
390	Frankston	42,477	75	1	3	2	1	6	1	0	0	0	4	0	2	95	0.22
400	Frankston South	6,287	13	0	0	1	0	1	0	1	0	0	1	0	1	18	0.29
410	Mornington	21,197	22	0	0	1	1	5	0	0	0	0	5	0	1	35	0.17
420	Mount Martha	4,660	8	0	0	1	0	0	0	0	0	0	0	0	0	9	0.19

Locality number	Locality name	Customer count (property connections)	Brown	Blue	Black	White	Yellow	Chlorine	Earthy	Musty	Petro	Stale	Other	Suspected illness	Other	Total number of reports	Complaints (per 100 customers)
430	Dromana	10,473	5	0	0	1	0	0	0	1	0	0	1	1	5	14	0.13
440	Rye	36,268	48	0	0	4	0	3	1	0	0	0	2	0	1	59	0.16
450	Lang Lang	1,235	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0.08
570	Bayswater	32,133	20	1	0	1	3	4	0	0	0	1	2	2	3	37	0.12
580	Ferntree Gully	10,172	16	1	0	0	0	4	0	1	0	0	2	0	1	25	0.25
581	Belgrave	6,785	10	0	0	0	1	3	1	0	0	0	0	0	5	20	0.29
590	Wantirna	11,717	20	0	0	2	1	1	0	0	0	0	1	0	4	29	0.25
610	Caulfield	75,612	65	2	0	1	5	7	1	0	0	1	8	0	4	96	0.13
620	South Melbourne	111,590	38	1	0	2	3	16	0	0	1	1	9	2	6	79	0.07
630	Hallam	32,560	47	0	2	23	5	7	3	0	0	2	4	2	3	97	0.30
640	Dandenong	59,316	88	1	0	1	3	1	1	0	0	2	9	1	4	112	0.19
650	Chelsea	23,662	29	1	0	2	0	5	0	0	1	2	4	2	0	44	0.19
660	Dandenong North	12,254	2	0	0	0	4	1	0	0	0	0	1	0	2	12	0.10
670	Brighton Heatherton	113,770	189	3	2	10	5	15	2	1	4	1	8	2	8	251	0.22
680	Beaumaris	13,442	16	1	0	1	0	0	1	0	0	0	2	3	0	21	0.16
690	Mordialloc	15,379	35	2	0	6	1	1	0	1	1	0	2	0	7	57	0.37
700	Rowville	14,690	23	0	1	0	0	1	0	0	0	0	2	1	2	29	0.20
710	Moorooduc	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
720	Clyde North	20,728	27	0	0	1	4	5	1	1	0	1	3	0	3	46	0.22
Total		**846,310**	**1216**	**17**	**10**	**81**	**46**	**118**	**17**	**10**	**11**	**13**	**103**	**19**	**73**	**1734**	**0.20**

9.2.3 Discoloured water complaints

We enjoy high-quality water from our catchments and carefully treat it before we send it out into our network. Much of Melbourne's water supplied into our pipeline system is unfiltered, which means some harmless natural sedimentation can occur in the pipes.

Most discoloured water complaints are a result of emergency works.

We attribute most discoloured water complaints received this year to increased water flow or a reversal of the flow direction through the main. This can disturb the fine sediment material from the source water, which can settle in the main during periods of low flow.

A portion of this year's complaints can be attributed to the elevated amounts of manganese coming from our Cardinia supply.

Blue water is caused by the release of copper into water passing through copper pipe, resulting in the water appearing blue. All blue water related complaints received in 2024–25 were associated with corrosion of the copper pipe within a customer's property or service pipe.

When we receive a complaint about a burst or damaged water main, we respond by communicating to the customer why the water is discoloured and how we'll resolve the problem. If the water is still discoloured, we flush the water main, usually targeting dead-end streets where water does not move through the system as frequently.

9.2.4 Taste and odour complaints

Taste and odour complaints are generally related to chlorine. These complaints can vary with seasonal water demands and the location of the customer's property.

The chlorination process can lead to noticeable, yet harmless, tastes and odours if the chlorine reacts with organic matter present in the pipe. Chlorine has been used effectively around the world for more than 100 years as part of the water treatment process and the amount of chlorine added is minimal.

While we regularly monitor the drinking water supply, it's not possible to accurately predict the occurrence of taste and odour problems. However, once reported by customers, or detected by our employees, we investigate the issue to devise a prompt resolution.

9.2.5 Alleged illness complaints

These are received from customers who suspect their water supply may be associated with an illness they are experiencing. We investigate each complaint relating to alleged illness from our water quality with care and concern, inviting the Department of Health to assist where appropriate.

This year there were no confirmed cases of illness arising from our water supply system.

9.2.6 Other complaints

Other water quality complaints received were either from industrial customers concerned about water quality issues that could affect their processes (e.g. pH), or residential customers with concerns about water quality such as discolouration of appliances and issues with aquariums.

Healthy Water.
For Life.

How to get in touch

Email support@southeastwater.com.au
General account enquiries 13 18 51
South East Water Assist 03 9552 3540
Hearing and speech impaired services
TTY 13 36 77 (ask for 13 18 51)
Interpreter service (all languages) 03 9209 0130

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