



# Annual Drinking Water Quality Report 2023-24





TasWater proudly acknowledges the Tasmanian Aboriginal people as the custodians of lutruwita / Tasmania – Aboriginal land, sea and waterways. We pay our deep respects to the Elders past and present and acknowledge today's Tasmanian Aboriginal community.

# CEO message



I am pleased to present the Annual Drinking Water Quality Report for 2023–24. TasWater manages 59 separate water systems across the state, providing clean, safe drinking water to more than 470,000 people and playing a vital role in safeguarding the health of Tasmanians.

In 2023–24, for the sixth year in a row, we achieved full microbiological compliance with the Tasmanian Drinking Water Quality Guidelines. This excellent record is a testament to our investment in new technology, improvement projects and network renewals.

Over the course of the year, we conducted approximately 280,000 water quality tests around the state – the equivalent of one every two minutes.

This year, we have consolidated and built upon the improvements

brought about by large-scale projects from previous years.

By continuing to make key investments in our network and enhancing services, we ensure we are providing exceptional water services for a thriving Tasmania.

Our Regional Towns Water Supply Improvement Program is focused on improving water quality, reliability and supply capacity for growing regional towns with a \$16.2 million investment for Tullah and Ellendale in progress.

As part of our statewide water main renewal program, we invested \$10.9 million this year and replaced 7.5km of water mains in locations such as Coles Bay and Granton. These renewals are providing increased water reliability and



security to our customers, and next financial year we will double our investment in this program.

These infrastructure upgrades complement and support our major capital projects, such as the \$243.9 million upgrade of Bryn Estyn Water Treatment Plant which provides an average 60 per cent of the water supply needs of over 200,000 Hobartians annually.

Our ultraviolet (UV) disinfection program continues to progress well. UV technology is now providing an additional layer

of protection to drinking water at 27 sites around the state, with a further five sites to come online by the end of 2025.

We also look forward to adding fluoride to the Bothwell Water Treatment Plant as part of an upgrade to be delivered in 2026–27.

For evidence of the quality of our drinking water, we can look no further than Fern Tree on kunanyi / Mt Wellington, which this year claimed the title of 'Best Tasting Tap Water in Australia'.

As an essential service provider, we take our responsibility for the health and wellbeing of Tasmanians seriously. We adhere fully to the Australian Drinking Water Guidelines


and will respond to any changes to these as and when they are updated.


As part of this commitment, we have undertaken testing for the presence of Per- and Poly-Fluoroalkyl Substances (PFAS) in all raw water catchments across Tasmania and recorded no detections.

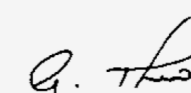
TasWater is investing \$1.9 billion in its network over the next five years to ensure it can continue to deliver exceptional water and sewerage services.

We remain as committed as ever to unlocking water's full potential for the benefit of Tasmanians now and into the future.

 280,000 tests

 100 per cent of customers received microbiologically compliant water

 Sixth straight year of recording 100 per cent microbiological compliance



George Theo  
Chief Executive Office

# Operations overview

TasWater's purpose is to provide exceptional water and sewerage services for a thriving Tasmania.

Every day we source, treat and deliver water to more than 470,000 Tasmanians, ensuring they can go about their daily lives and trust that when they turn on the tap, they're getting high-quality water.

We also collect, transport and treat sewage, and

safely return effluent to the environment, doing our part to ensure Tasmania is protected for future generations.

Our vision of "unlocking water's full potential", recognises the important role we play in the Tasmanian community and our responsibility to our island's natural environment.

It is an aspiration that demonstrates our continued commitment to supporting the social and economic prosperity of all Tasmanians.

Through the responsible delivery of safe and reliable drinking water and sewerage services across Tasmania, we are working hard to support our thriving state.

Drinking Water quality is regulated by the Department of Health.

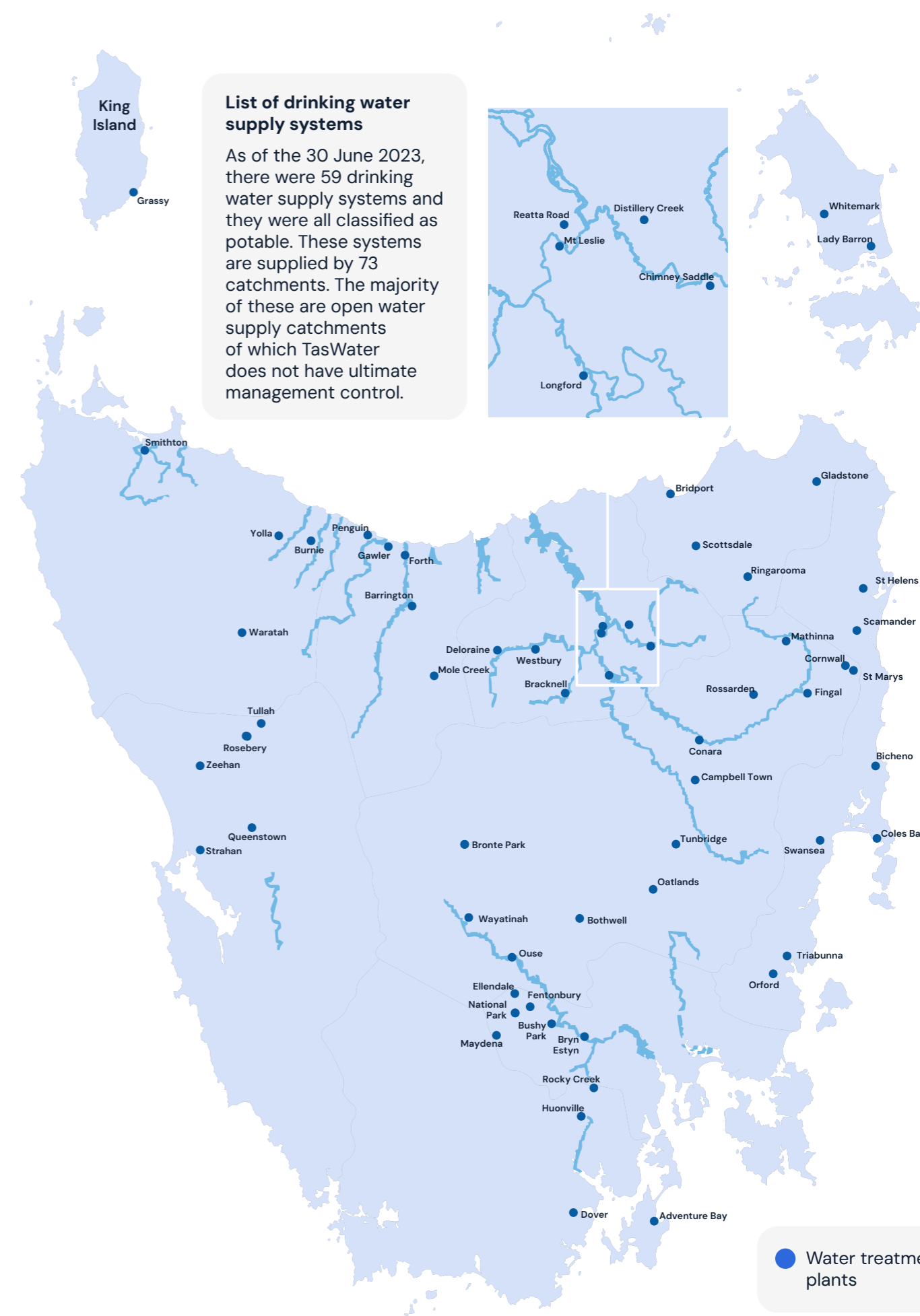
The National Health and Medical Research Council (NHMRC) publish the Australian Drinking Water Guidelines (ADWG) taking advice from a range of specialists and other water quality regulators. The Tasmanian Drinking Water Guidelines legally enforce the requirements of the ADWG.

Sampling is performed by our TasWater sampling team, and all testing is performed at National Association of Testing Authorities (NATA) accredited laboratories.

## Legislative and regulatory instruments

Our operations are subject to a range of regulatory requirements.

- Public Health Act 1997 (Tas)
- Fluoridation Act 1968
- Tasmanian Drinking Water Quality Guidelines 2015
- Australian Drinking Water Guidelines 2022
- Tasmanian Code of Practice for the fluoridation of drinking water supplies in Tasmania 2022
- Fluoridation Regulations 2019



# UV Disinfection Program delivering benefits

Ultraviolet disinfection is being installed at various water treatment plants around the state to deliver an additional layer of treatment to the drinking water.

UV disinfection is currently installed and operational in 27 water treatment plants, with an additional five sites to be brought online in 2024-25.

The technology utilises and enhances the natural disinfecting effects of sunlight by passing water through pipes containing UV lamps. This is the final stage of

disinfection at the treatment plant before the water is delivered to customers.

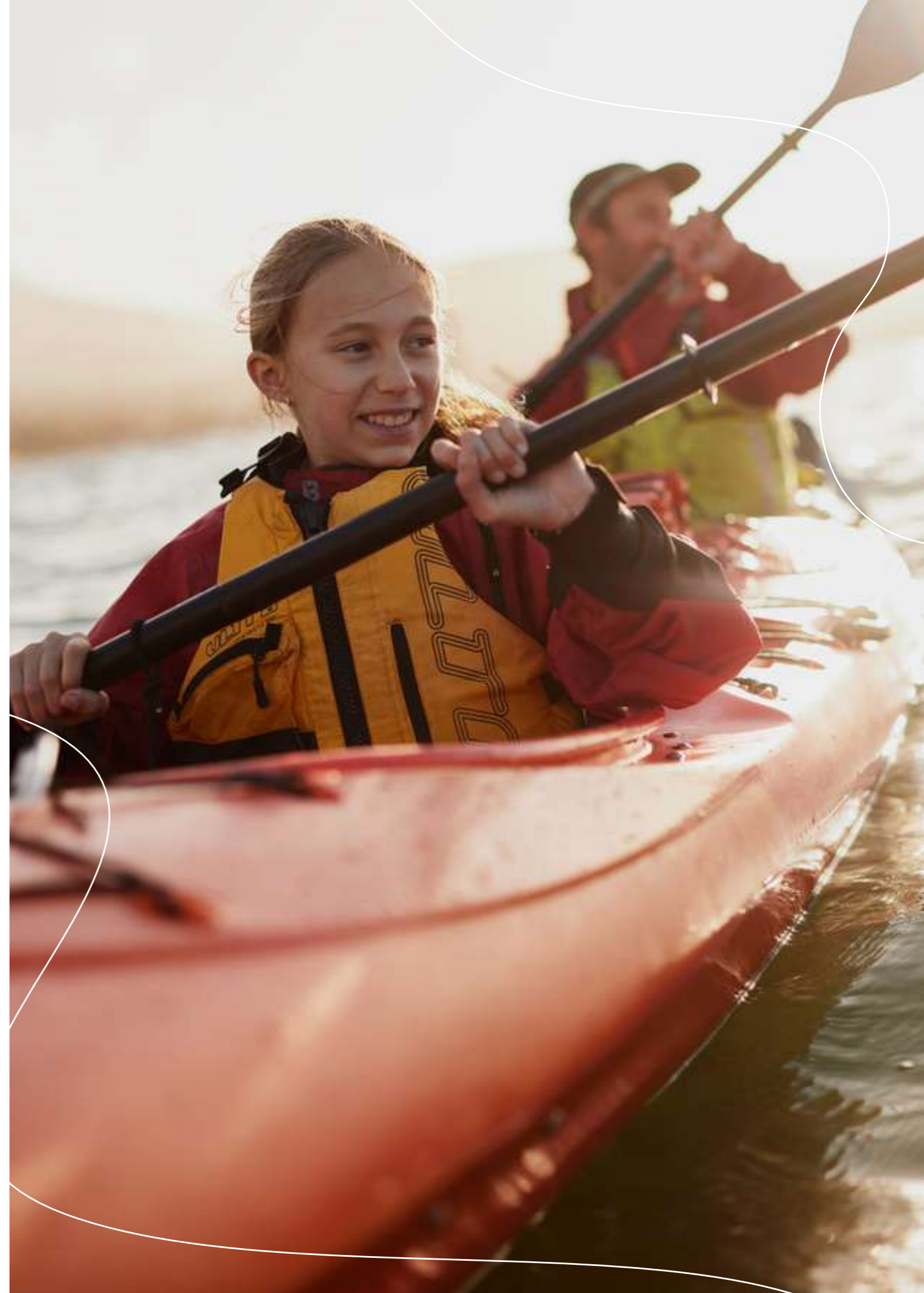
UV disinfection doesn't affect the taste, colour, or odour of the water, but adds an additional layer of protection, further reducing the risk of harmful microbes entering the water supply.

TasWater's \$8.2 million investment in the UV Disinfection Program over 2023-24 is working to help it meet and maintain its annual 100 per cent microbiological compliance.

[Watch the video here](#)

## Fast Facts:

- Through the current program, UV disinfection has been installed at the following water treatment plants:
  - Bracknell, Bridport, Deloraine, Glen Huon, Longford, Scottsdale, St Helens, Westbury, Smithton, Swansea, Orford, Campbell Town, Strahan and Zeehan.
- UV disinfection will be installed at the following water treatment plants in 2024-25:
  - Chimney Saddle, Distillery Creek, Mount Leslie, West Tamar, Burnie.



## List of drinking water supply systems

As of the 30 June 2024, there were 59 drinking water supply systems. All systems were classified as potable for the entire year.

**Table 1: Potable drinking water supply systems as of 30 June 2024**

System	Status	Catchment/ water source	Connections	Population	Fluoridated supply*
Adventure Bay (Bruny Island)	Potable	Bore	1	1	No
Barrington	Potable	Lake Barrington	1,162	2,676	Yes
Bicheno	Potable	Aspley River	930	993	Yes
Bothwell	Potable	Clyde River	289	614	No
Bracknell	Potable	Liffey River	180	480	No
Bridport	Potable	Brid River	1,039	1,534	Yes
Bronte Park	Potable	Bronte Canal	59	26	No
Burnie	Potable	Pet River	12,362	28,692	Yes
Bushy Park	Potable	Lake Fenton	116	304	Yes
Campbell Town	Potable	Pet River / Guide River	718	1,406	Yes
Coles Bay	Potable	Saltwater Creek	251	139	No
Conara	Potable	South Esk	60	145	No
Cornwall	Potable	Fanshaft Spring/ unnamed watercourse	47	94	No
Deloraine	Potable	Meander River	1,329	3,082	Yes
Dover	Potable	Esperance River	613	1,060	Yes
Ellendale	Potable	Jones River	70	140	No
Fentonbury	Potable	Lake Fenton	123	258	Yes
Fingal	Potable	South Esk River	333	682	Yes
Forth	Potable	Forth River	18,189	42,419	Yes
Gladstone	Potable	Ringarooma River	77	145	No
Grassy (King Island)	Potable	Grassy River	559	1,040	Yes
Greater Hobart	Potable	Lake Fenton	83,952	216,435	Yes
		Derwent River			
		Mt Wellington (multiple offtakes)			
Huonville	Potable	Huon River	3,593	8,927	Yes
Lady Barron (Flinders Island)	Potable	Bore	108	142	No
Launceston Distillery Creek	Potable	Distillery Creek / St Patricks River	12,957	30,011	Yes

System	Status	Catchment/ water source	Connections	Population	Fluoridated supply*
Launceston North Esk	Potable	North Esk River	14,649	35,809	Yes
Launceston South Esk	Potable	Lake Trevallyn	5,197	12,847	Yes
Launceston West Tamar	Potable	Lake Trevallyn	9,617	24,035	Yes
Longford	Potable	Macquarie River	4,483	10,906	Yes
Mathinna	Potable	South Esk River	80	144	No
Maydena	Potable	Unnamed tributary	127	169	No
Mole Creek	Potable	Tributary to Mole Creek	201	446	No
National Park	Potable	Lake Fenton	32	50	Yes
Oatlands	Potable	Blackman River	444	853	Yes
Orford	Potable	Prosser River	1,114	958	Yes
Ouse	Potable	Derwent River	223	451	No
Penguin	Potable	Leven River	2,180	5,175	Yes
Queenstown	Potable	Conglomerate Creek	1,240	1,969	Yes
Ringarooma	Potable	Dunn's Creek Dam/ Ringarooma River	659	1,153	Yes
Rocky Creek	Potable	Rocky Creek	445	1,201	Yes
Rosebery	Potable	Mountain Creek / Stitt River	589	919	Yes
Rossarden	Potable	Aberfoyle Creek	43	50	No
Scamander	Potable	Scamander River	596	1,008	Yes
Scottsdale	Potable	Great Forester River / Brid River	1,207	2,807	Yes
Smithton	Potable	Deep Creek	2,134	4,812	Yes
St Helens	Potable	Georges River	1,903	2,843	Yes
St Marys	Potable	Bore	340	649	Yes
Strahan	Potable	Manuka River	507	662	Yes
Swansea	Potable	Swan River / Meredith River	782	1,175	Yes
Triabunna	Potable	Maclaines Creek / Brady's Creek	461	873	Yes
Tullah	Potable	Lake Rosebery	178	284	No
Tunbridge	Potable	Blackman River	99	177	No
Ulverstone	Potable	Gawler River	5,876	13,789	Yes
Waratah	Potable	Waratah River	112	187	Yes

System	Status	Catchment/ water source	Connections	Population	Fluoridated supply*
Wayatinah	Potable	Lake Liapootah	52	20	No
Westbury	Potable	Meander River	1,098	2,586	Yes
Whitemark (Flinders Island)	Potable	Pats River	170	260	No
Yolla	Potable	Dowlings Creek	101	229	No
Zeehan	Potable	Parting Creek	498	786	Yes
<b>Total</b>	<b>59</b>		<b>196,554</b>	<b>471,727</b>	

\* Drinking water can only be fluoridated with a ministerial direction from the Minister of Health as per the Fluoridation Act 1968 for systems supplying more than 500 customers.

## Quality of drinking water for FY2023–24

The compliance program includes the health parameters of microbiological, chemical (metals and disinfection by-products (DBPs)) and fluoride.

All laboratory samples were analysed by National Association of Testing Authorities (NATA) accredited laboratories. Customers can access data from our online map-based portal - 'Your Drinking Water' on the TasWater website.

The portal enables customers to determine which system they are supplied by.

### System performance

**Table 2: High level health performance outcome for drinking water supply systems (against ADWG health-regulated parameters)**

(✓ = 100% compliant, ✗ = non-compliant, – = not fluoridated)

System	Compliance program completeness (samples collected) 2022-2023	Microbiological Performance					Chemical Performance					Fluoride Performance				
		19-20	20-21	21-22	22-23	23-24	19-20	20-21	21-22	22-23	23-24	19-20	20-21	21-22	22-23	23-24
Adventure Bay (Bruny Island)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Barrington	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Bicheno	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓

System	Compliance program completeness (samples collected) 2022-2023	Microbiological Performance					Chemical Performance					Fluoride Performance				
		19-20	20-21	21-22	22-23	23-24	19-20	20-21	21-22	22-23	23-24	19-20	20-21	21-22	22-23	23-24
Bothwell	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-
Bracknell	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-
Bridport	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Bronte Park	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-
Burnie	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓
Bushy Park	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-
Campbell Town	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Coles Bay	✓	✓	✓	✓	✓	✓	✗	✗	✓	✗	✗	-	-	-	-	-
Conara	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-
Cornwall	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	-	-	-	-	-
Deloraine	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓
Dover	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ellendale	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	-	-	-	-	-
Fentonbury	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-
Fingal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-
Forth	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓
Gladstone	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-
Grassy (King Island)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Greater Hobart	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Huonville	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Lady Barron (Flinders Island)	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	-	-	-	-	-

System	Compliance program completeness (samples collected) 2022-2023	Microbiological Performance					Chemical Performance					Fluoride Performance				
		19-20	20-21	21-22	22-23	23-24	19-20	20-21	21-22	22-23	23-24	19-20	20-21	21-22	22-23	23-24
Launceston Distillery Creek	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Launceston North Esk	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓
Launceston South Esk	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Launceston West Tamar	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓
Longford	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓
Mathinna	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-
Maydena	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-
Mole Creek	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-
National Park	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-
Oatlands	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Orford	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ouse	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-
Penguin	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✗	✗	✗	✓	✓
Queenstown	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ringarooma	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Rocky Creek	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓
Rosebery	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Rossarden	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-
Scamander	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓
Scottsdale	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Smithton	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓

System	Compliance program completeness (samples collected) 2022-2023	Microbiological Performance					Chemical Performance					Fluoride Performance							
		19-20	20-21	21-22	22-23	23-24	19-20	20-21	21-22	22-23	23-24	19-20	20-21	21-22	22-23	23-24			
St Helens	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓
St Marys	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Strahan	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Swansea	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Triabunna	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Tullah	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-	-	-
Tunbridge	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-	-	-
Ulverstone	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Waratah	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Wayatinah	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-	-	-
Westbury	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Whitemark (Flinders Island)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-	-	-
Yolla	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-	-	-
Zeehan	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

\* Drinking water can only be fluoridated with a ministerial direction from the Minister of Health as per the Fluoridation Act 1968 for systems supplying more than 500 customers.

## Chemical performance

Chemical performance is determined by monitoring for the presence of metals and disinfection by-products and is a requirement under the Tasmanian Drinking Water Quality Guidelines (TDWQG) and is undertaken in line with the risk-based approach promoted by the ADWG. Sampling programs are designed specifically for each drinking water system based on the site-specific risks.

During 2023–24 all samples from all systems were compliant with the ADWG health limits for metals.

This is the third year in a row we have been 100% compliant for metals across all systems.

During FY2023–24, Coles Bay and Lady Barron recorded detections of total trihalomethanes above the ADWG health limit of 250 µg/L.

### Events:

System	Treatment process	Detection date	Detection details	Outcomes
Coles Bay	Full Treatment	16/10/2023	Trihalomethanes – Total exceedance in compliance sample at GCSTE86 Coles Bay Esplanade of 285 µg/L.	Reported to DoH
		22/1/2024	Trihalomethanes – Total exceedance in compliance sample at GCSTE86 Coles Bay Esplanade of 314 µg/L.	Reported to DoH
		26/2/2024	Trihalomethanes – Total exceedance in compliance sample at GCSTE86 Coles Bay Esplanade of 308 µg/L.	Reported to DoH
		26/3/2024	Trihalomethanes – Total exceedance in compliance sample at GCSTE86 Coles Bay Esplanade of 364 µg/L.	Reported to DoH
		2/4/2024	Trihalomethanes – Total exceedance in compliance sample at GCSTE86 Coles Bay Esplanade of 348 µg/L.  Raw water monitoring identified an increase in bromide impacting the frequency of carbon replacement. Carbon replacement process improved with local storage trend monitoring.	Reported to DoH
Lady Barron	Full Treatment	6/2/2024	Trihalomethanes – Total exceedance in compliance sample at LBW51W01 Lady Barron Police Station of 308 µg/L.  Carbon replaced	Reported to DoH

## Microbiological performance

Monitoring for the presence of microbiological quality of the water is a requirement under the TDWQG and is undertaken by testing drinking water for *E.coli*. Each drinking water system is sampled in accordance with the sampling frequency specified in the compliance sampling program, with the number and frequency of samples determined by population as outlined in the ADWG.

For FY2023–24:

- 100 per cent (59 of 59) of systems met microbiological compliance# and
- 100 per cent of the serviced population achieved microbiological compliance.

# a system is deemed compliant if 98% of samples are clear of *E.coli* as per TDWQG

### Events:

System	Treatment process	Detection date	Nature of event	Outcomes
Launceston North Esk	Full treatment	26/6/2024	A routine sample in the North Esk supply zone detected 1.0 MPN/100mL <i>E. coli</i> . Department of Health (DoH) immediately notified. The supply system was reviewed, and subsequent samples were clear of <i>E. coli</i>	Reported to DoH  Subsequent sample (28/06/2024) clear of <i>E. coli</i>

## Fluoride performance

Monitoring for the presence of fluoride is a requirement of the Tasmanian Code of Practice for the Fluoridation of Public Water Supplies to ensure that there are no adverse health effects from elevated fluoride concentrations and that customers receive fluoridated water within an optimal range for oral health benefits. At the end of FY2023–24 there were 40 monitoring zones across Tasmania.

- Fluoride must not exceed the health-based guideline value of 1.5 mg/L contained in the ADWG. There were no fluoride exceedances.
- The average fluoride concentration determined over a year should be between 0.8 and 1.1 mg/L. This is the second year that all systems have maintained the required average concentration. This is due to an increased focus on monitoring and awareness along with fluoride dosing system upgrades.
- For the performance of a fluoridation system to be compliant, that system must demonstrate compliance with both the average concentration and the health-based guideline value.

## Customer complaints

TasWater recorded 1,267 water quality complaints during FY2023–24. The majority of complaints related to discoloured water. Projects are underway to replace 16.5km of corroded water mains in 2024–25 and implement targeted flushing programs.



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