



DRINKING WATER QUALITY MANAGEMENT PLAN

ANNUAL REPORT
2021/22



CONTENTS

I. INTRODUCTION	4
1.1 Service Provider Details	4
1.2 Accessing This Report	5
2. SUMMARY OF SCHEME(S) OPERATED	6
3. DWQMP IMPLEMENTATION	8
3.1 Pathway to Zero Water Quality Incident Roadmap	8
3.2 Risk Management	10
4. VERIFICATION MONITORING PROGRAM	11
5. INCIDENTS REPORTED TO THE REGULATOR	12
6. CUSTOMER SATISFACTION	21
6.1 Water Quality Complaints Performance 2021/22	22
7. DWQMP REVIEW OUTCOMES	25
8. GLOSSARY	27
9. APPENDICES	30
Appendix A: Annual Drinking Water Quality Performance report 21-22	30

I. INTRODUCTION

THIS IS URBAN UTILITIES’ DRINKING WATER QUALITY MANAGEMENT PLAN REPORT FOR THE FINANCIAL YEAR 2021/22 (FY22).

I.1 SERVICE PROVIDER DETAILS

Name
Central SEQ Distributor-Retailer Authority trading as Urban Utilities

Service Provider ID
521

Address
PO Box 2765
Fortitude Valley QLD 4006

Telephone
13 26 57 (8am to 5pm weekdays)

Website
www.urbanutilities.com.au

Local Government Areas
Councils of Brisbane, Ipswich, Lockyer Valley, Scenic Rim, and Somerset

THE REPORT SHOWCASES

- Urban Utilities’ operational performance with respect to drinking water quality and shows how Urban Utilities has been implementing key improvement actions detailed in our Drinking Water Quality Management Plan (DWQMP).
- Any non-compliances and incidents under section 102 and 102A of the *Water Supply (Safety and Reliability) Act 2008*
- Compliance with water quality criteria for drinking water
- Customer satisfaction and water quality complaints performance regarding drinking water quality
- DWQMP review outcomes.

This report should be read in conjunction with the Annual Drinking Water Quality Performance Report 2021/22 (Appendix A).

It aligns with the requirements of the reporting template published by the Regulator and addresses the requirements under Section 142(3) of the Act (Table 1).

Table 1: Sections of report that address reporting requirement under Section 142(3) of the Act

Section ref#	Legislative Requirement Under Section 142(3) Of The Act	Content Guide	Section of this report
-	Overview of operations (optional)	Contextual information of the water supply schemes that this annual report relates to	Section 2
142(3) b	Actions taken to implement the DWQMP	Description of activities undertaken during the reporting period to implement the DWQMP: <ul style="list-style-type: none">Pathway to zero water quality incidentProgress in implementing the risk management improvement program (RMIP)	Section 3
142(3) f	Compliance with water quality criteria for drinking water	<ul style="list-style-type: none">Verification monitoring results summary for the reporting periodCommentary on water quality results, the Australian Drinking Water Guidelines and E. coli results	Section 4 Appendix A
142(3) e	Notifications to the Regulator under sections 102 and 102A of the Act	Non-compliances with the water quality criteria and corrective and preventive actions undertaken <ul style="list-style-type: none">Prescribed incidents or events reported to the Regulator and corrective and preventive actions undertaken	Section 5
142(3) g	Customer complaints related to water quality	Summary of water quality complaints	Section 6
142(3) d	Findings and recommendations of the DWQMP auditor	Not Applicable	-
142(3) c	Outcome of the DWQMP review and how issues raised have been addressed	Amendment of the DWQMP	Section 7

I.2 ACCESSING THIS REPORT

This report is available on our website: urbanutilities.com.au/publications

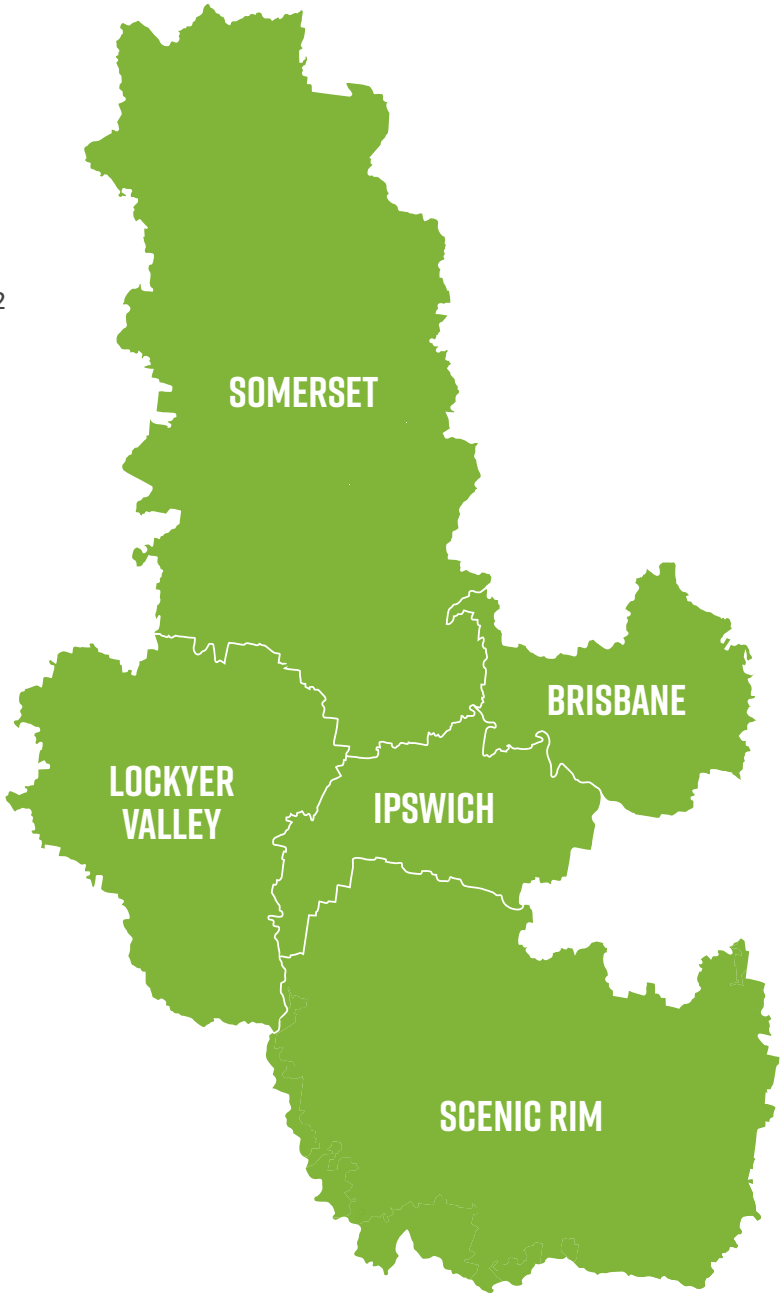
2. SUMMARY OF SCHEME(S) OPERATED

Urban Utilities provides drinking water services to 1.5 million people residing within a 14,384km² geographic area, which stretches from Cape Moreton in the east to the foot of the Toowoomba Range in the west, and from the Yabba State Forest in the north to the New South Wales border in the south.

Urban Utilities receives treated water from the bulk water supplier Seqwater. The Urban Utilities service area during the FY22 had five supply Local Government Areas (LGAs), which are then broken down into 12 schemes. These LGAs include:

- Brisbane City Council (BCC),
- Ipswich City Council (ICC),
- Lockyer Valley Regional Council (LVRC),
- Scenic Rim Regional Council (SRRC) and
- Somerset Regional Council (SRC).

Additional information is available in the 2021/22 Drinking Water Quality Performance Report (Appendix A).



3. DWQMP IMPLEMENTATION

The Drinking Water Quality Management Plan is central to how Urban Utilities provides customers with safe and clean drinking water. Urban Utilities continuously improves and updates its DWQMP and Risk Management Improvement Program with the most recent version submitted to the Regulator in early 2022 and approved on 29 April 2022.

During FY22, changes were made to how Urban Utilities manages and implements its DWQMP. These changes were made as part of a broader operating model review. The model review included transfer of the management of the DWQMP to a dedicated standards team. The model review also aligned Operation and Maintenance Planning teams based on function rather than technical streams, which has assisted in improving enterprise level drinking water quality skills and awareness by aligning more staff to the water quality performance objectives within the DWQMP.

To assist in implementing the DWQMP further, a Pathway to Zero Water Quality Incident Roadmap was established to address water quality improvement from both an operational and planning perspective.

3.1 PATHWAY TO ZERO WATER QUALITY INCIDENT ROADMAP

Delivery of safe and compliant drinking water from receipt of bulk water through to the customer’s tap is paramount to Urban Utilities and is a essential for our customers. An internal performance target has been set to support achieving the Pathway to Zero water quality incidents.

The Pathway to Zero Water Quality Incident Roadmap (Table 2) demonstrates Urban Utilities’ commitment to improving water quality to enable the delivery of our core strategic vision of enhancing liveability of our communities. The roadmap’s implementation commenced in FY22 and requires effective planning and execution to successfully deliver the ultimate Pathway to Zero water quality incidents.

Additional information regarding the improvement actions implemented in FY22 in line with the roadmap is available in the 2021/22 Drinking Water Quality Performance Report (Appendix A).

Table 2: Pathway to Zero Water Quality Incident Roadmap

Workstreams	FY22 Q3	FY22 Q4	FY23	FY24
Reservoir Integrity	Reservoir Water Quality Program (RWQP) Specialist inspections, enhancements, and advanced asset insights		Continuation of RWQP	
			Risk based reservoir water quality maintenance schedules	
	Update Reservoir Design Specifications for future reservoirs.		Updated Reservoir design specifications utilised for all new reservoirs moving forward	
	Audit reservoirs for design deficiencies against current design specifications. Identify deficient reservoirs and inform capital programming.		Commence delivery of Reservoir Integrity rectification initiatives to improve WQ outcomes	
	Develop, endorse, and implement Reservoir Maintenance Strategy		Continuous improvement of reservoir maintenance strategy	
Improving Disinfection Performance	Development and early-stage implementation of Disinfection Management Strategy		Disinfection Strategy Implementation/ Continuous Improvement	
	Disinfection intervention protocols	Embedding intervention plans into operations		Chloramine stability improvements
	Capital upgrades to improve disinfection performance			
Operational Monitoring		ISO 22000 framework study planning	ISO22000 framework study	
	Continuous improvements in operating reservoirs and networks to support holistic service performance			
	Improved data and process controls	Implement Reservoir Operational Philosophy and improving Operating Protocols for WQ outcomes		
	IoT Strategy Development – Supply scheme Pilot aiming to fill data gaps and innovative new technology platforms			
Predictive Modelling	WQ predictive modelling across UU service territory to identify priority areas for WQ improvement	Incorporate predictive modelling of water quality informed by updated chlorine decay kinetics and DBP formation potentials into IZP process		
Supply Chain integrity	Maintain strong supply chain relationships with Seqwater to continuously improve water quality to the communities we serve			



3. DWQMP IMPLEMENTATION

3.2 RISK MANAGEMENT

Urban Utilities utilises the Risk Management Improvement Plan (RMIP) to identify, track and control water quality risks related to the DWQMP and the provision of drinking water. It is a key tool to ensure the objectives of the DWQMP are tracked and implemented. Regular reviews of the RMIP are conducted to ensure it is communicated, implemented and effective at controlling water quality risks. Table 3 highlights improvements implemented during FY22 as part of the RMIP.

Table 3: RMIP actions undertaken

Core theme	Number of risks	Actions Implemented
Disinfection	10	Uplifted water supply system analysis capability via implementation of a water quality network model for Brisbane and Ipswich with works underway to rollout across the rest of the Urban Utilities water networks in FY23
		Improved surveillance of water quality performance through an upgraded operational monitoring process
		Developed and utilised operational procedures and process controls to improve control over disinfection performance
		Collaborated with key supply partner Seqwater to establish a new service level agreement to improve the reliability of bulk water quality
Physical Integrity of Reservoirs	2	Improved security controls for reservoirs through continued rollout of CCTV monitoring and lighting projects
		Improved physical water quality control barriers through reservoir inspection, testing and maintenance water quality process conducted at 86 of our reservoir sites
Network Planning	1	Continued focus on Integrated Zone Planning process to further ensure water quality is a mandatory criterion in our planning process
Cyber Security	2	Improved data backup technologies and cyber security controls for water quality equipment

4. VERIFICATION MONITORING PROGRAM

The supply of safe drinking water is Urban Utilities’ greatest public health responsibility. A critical component of water quality management is verifying our product continues to meet the stringent standards articulated in the relevant legislation and regulations. We assure the quality of the drinking water supply through Drinking Water Quality Verification Monitoring Program (VMP). The VMP is a comprehensive program designed to maximise visibility of drinking water quality as it travels through the 9,644km of water mains that service our communities.

Monitoring is the final check of drinking water quality performance and is routinely performed throughout the year. Insights from the VMP inform the continuous improvement of our procedures and processes, and guides capital and operational investment decisions. The VMP alerts us to emergent changes or sudden occurrences which may impact the drinking water, allowing us to proactively manage the quality of the product we supply to our customers. The VMP provides us with confidence in managing drinking water quality and supports our commitment to maintain protection barriers and prevent contamination.

Urban Utilities provides an annual summary of water quality performance to customers, available on the Urban Utilities website www.urbanutilities.com.au. The 2021/22 Drinking Water Quality Performance Report (Appendix A) meets the requirements for the water quality performance aspect of this document. Please note that the reported statistics do not include results derived from repeat samples, or from emergency or investigative samples undertaken in response to an elevated result.

The 2021-22 Drinking Water Quality Performance Report includes a summary of the verification monitoring results.

Key points include:

100% COMPLIANCE ACHIEVED WITH THE PUBLIC HEALTH REGULATION 2018 E. COLI PARAMETER.

100% COMPLIANCE ACHIEVED WITH THE AUSTRALIAN DRINKING WATER GUIDELINES CHEMICAL-RELATED PARAMETERS.

100% COMPLIANCE ACHIEVED WITH THE AUSTRALIAN DRINKING WATER GUIDELINES AESTHETIC-RELATED PARAMETERS.

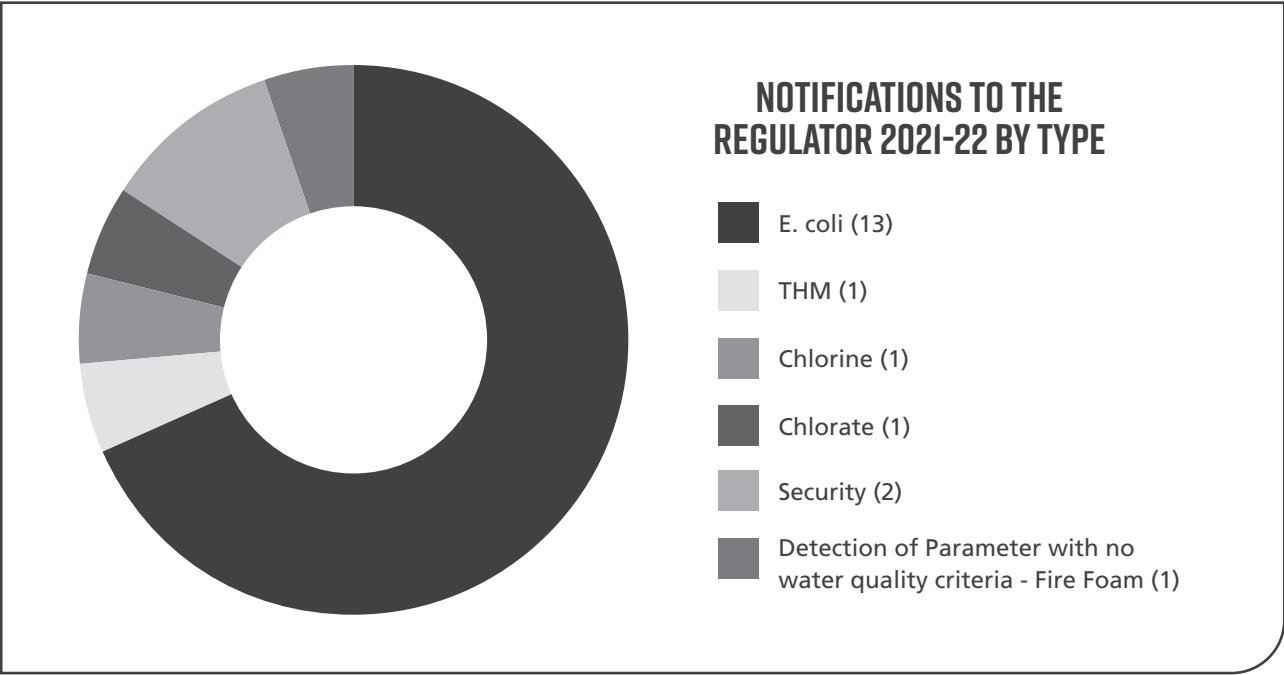
5. INCIDENTS REPORTED TO THE REGULATOR

Under section 102 *Water Supply (Safety and Reliability) Act 2008 (Qld)*, Urban Utilities is required to immediately inform the Regulator if the quality of water supplied from the drinking water service does not comply with the water quality criteria as specified in the ADWG.

Water quality incidents represent the number of times a water quality sample did not meet the ADWG parameters or the recently published Queensland Health Chlorate position statement, resulting in the immediate notification of the incident to the Regulator.

In FY22, Urban Utilities took over 11,300 water quality samples and conducted in excess of 114,000 water quality tests. Of those samples, 15 tests did not meet the requirements of the ADWG. Thirteen related to the detection of E. coli in Brisbane, Ipswich and Scenic Rim, one exceedance related to detections of Trihalomethanes¹ (THM) in the Lockyer Valley region and one related to chlorine exceedance in the Scenic Rim region. One test did not meet the requirements of the Queensland Health Chlorate Position Statement. We also detected two instances in which reservoir sites had been vandalised and one instance of fire retardant in the network during a fire response (figure 1).

Figure 1: Urban Utilities’ notifications to the Regulator FY22 by type



¹ A group of by-products that may form under certain conditions when chlorine is used to disinfect drinking water.

Table 4 provides detail regarding each incident, the initial corrective action and investigation outcomes with further actions.

Table 4: Notifications to the Regulator –1 July 2021 – 30 June 2022

Sample Date	Type	Location/ Supply Scheme	Description	Immediate corrective action	Investigation outcomes and further actions
Report date – 03/08/21	Security	Riverview/ SEQWSS	Malicious damage and vandalism were detected during a routine security inspection. Follow up drinking water samples of the supply zone exhibited no abnormal water quality concerns.	The reservoir was isolated and Queensland Police Forensic Units collected evidence. Portable CCTV installed on site. Responsive samples were taken from the reservoir and within the supply zone.	The reservoir was isolated for corrective works scoping and critical sealing completed before returning the reservoir to service. Permanent CCTV has been installed on site.
Report date – 03/09/21	Parameter without ADWG Value	Wynnum/ SEQWSS	The event involved reports of firefighting foam introduced into the network during fire response. QFES advises fire retarding foam is non-toxic and does not contain PFAS/PFOA. Follow up samples did not exhibit abnormal water quality concerns.	Network flushing and precautionary isolation of impacted network pocket.	Urban Utilities and QFES will continue to cooperate to mitigate future instances.
26/10/21	E. coli	Redbank Plains/ SEQWSS	The non-compliance was a detection of E. coli from a customer investigation. 9MPN E. coli organisms per 100mL was detected. Follow up samples exhibited no continued presence of E. coli.	The sample exhibited <0.1mg/L Total Chlorine at the time of sampling. The impacted customers provided tankered water until corrective actions could be finalised. The impacted line segment was inspected using in-pipe CCTV.	The impacted line segment was cleaned, super chlorinated, flushed and tested before returning to service.

5. INCIDENTS REPORTED TO THE REGULATOR

Sample Date	Type	Location/ Supply Scheme	Description	Immediate corrective action	Investigation outcomes and further actions
16/11/21	E. coli	Springfield/ SEQWSS	The non-compliance was a detection of E. coli from a routine sample. 2MPN E. coli organisms per 100mL was detected. Follow up samples exhibited no continued presence of E. coli.	The sample exhibited <0.1mg/L Total Chlorine at the time of sampling. The reservoir was isolated from supply and the zone was then flushed from the upstream supply.	56mm of rain was detected from the closet weather station in the 7 days leading up to sampling. The reservoir was isolated for inspection and found to have stormwater ingress issues. These have been resolved and the reservoir is back in service.
29/11/21	E. coli	Bardon/ SEQWSS	The non-compliance was a detection of E. coli from a routine sample. 1MPN E. coli organisms per 100mL was detected. Follow up samples exhibited no continued presence of E. coli.	The sample exhibited 0.6mg/L total chlorine at time of sampling. The reservoir was isolated from supply and the zone was then flushed from the upstream supply	162mm of rain was detected from the closet weather station in the 7 days leading up to sampling. The reservoir was isolated for inspection and found to have stormwater ingress issues. These have been resolved and the reservoir is back in service.
13/12/21	THM	Lockyer Valley Region/ Lowood	The non-compliance was a detection of Trihalomethanes (THM) from a routine sample. 260ug/L was detected at Tabletop supply zone and 300ug/L in Murphys Creek supply zone	The network was flushed, and responsive samples taken from the relevant sample points across the supply scheme. Reconfiguration of the western Lowood supply scheme and tankering from alternate supplied sources to multiple locations across the Lowood supply scheme. Installation of automated flushing devices within Tabletop and Murphys Creek supply zones.	Rainfall events preceding the exceedance have influenced raw water quality and customer usage. Urban Utilities will continue to assess network THM management options, increased data capture and improved network water demand management. A project team has been established to improve THM Formation Potential models to assist in operations and planning activities.

Sample Date	Type	Location/ Supply Scheme	Description	Immediate corrective action	Investigation outcomes and further actions
22/12/21	E. coli	Mount Alford/ Boonah- Kalbar	The non-compliance was a detection of E. coli from a routine sample. 1MPN E. coli organisms per 100mL was detected. Follow up samples exhibited no continued presence of E. coli.	The sample exhibited <0.1mg/L Free Chlorine at the time of sampling. The reservoir was isolated from supply and the zone was then flushed from the upstream supply.	The reservoir was isolated for inspection and found to have vermin intrusion vulnerabilities. These have been resolved and the reservoir is back in service. A new chlorine dosing unit has been commissioned at the reservoir site.
30/12/21	E. coli	Ascot/ SEQWSS	The non-compliance was a detection of E. coli from a routine sample. 1MPN E. coli organisms per 100mL was detected. Follow up samples exhibited no continued presence of E. coli.	The sample exhibited 0.3mg/L total chlorine at time of sampling. The reservoir was isolated from supply. Responsive samples were taken from the relevant sample points in the supply zone.	76mm of rain was detected from the closet weather station in the 7 days leading up to sampling. The reservoir was isolated for inspection and found to have stormwater ingress issues. Optimisation of operation of a downstream pressure reducing valve to improve demand balancing and disinfection performance of the reservoir.

5. INCIDENTS REPORTED TO THE REGULATOR

Sample Date	Type	Location/ Supply Scheme	Description	Immediate corrective action	Investigation outcomes and further actions
18/01/22	E. coli	Mitchelton/ SEQWSS	The non-compliance was a detection of E. coli from a routine sample. 1MPN E. coli organisms per 100mL was detected. Follow up samples exhibited no continued presence of E. coli.	The sample exhibited <0.1mg/L Total Chlorine at the time of sampling. Responsive samples were taken, and the reservoir was isolated from supply.	The reservoir was isolated for inspection and found to have minor stormwater ingress issues. These have been resolved and the reservoir is back in service. An upstream reservoir in Keperra was isolated for inspection and found to have stormwater ingress issues. These have been resolved and the reservoir remains out of service.
8/02/22	E. coli	The Gap/ SEQWSS	The non-compliance was a detection of E. coli from a routine sample. 1MPN E. coli organisms per 100mL was detected. Follow up samples exhibited no continued presence of E. coli.	The sample exhibited 0.1mg/L Total Chlorine at the time of sampling. The reservoir was isolated from supply. Responsive samples were taken from the relevant sample points in the supply zone.	57mm of rain had been recorded at the closest weather station in the 7 days up to sampling. The reservoir was isolated for inspection and found to have stormwater ingress. These have been resolved and the reservoir is back in service.
17/02/22	E. coli	Redbank Plains/ SEQWSS	The non-compliance was a detection of E. coli from a routine sample. 2MPN E. coli organisms per 100mL was detected. Follow up samples exhibited no continued presence of E. coli.	The sample exhibited <0.1mg/L Total Chlorine at the time of sampling. The reservoir was isolated from supply and the zone was then flushed from the upstream supply.	The cause of the incident could not be determined. The reservoir remained isolated until completion of the outstanding critical works before returning the reservoir to service.

Sample Date	Type	Location/ Supply Scheme	Description	Immediate corrective action	Investigation outcomes and further actions
1/03/22	E. coli	Bracken Ridge/ SEQWSS	The non-compliance was a detection of E. coli from a routine sample. 6MPN E. coli organisms per 100mL was detected.	The sample exhibited 2.8mg/L Total Chlorine at the time of sampling.	The upstream trunk network inspected for ingress with no issues reported.
22/03/22	E. coli	Springfield/ SEQWSS	The non-compliance was a detection of E. coli from a routine sample. 2MPN E. coli organisms per 100mL was detected. Follow up samples exhibited no continued presence of E. coli.	The sample exhibited <0.1mg/L Total Chlorine at the time of sampling. Responsive samples were taken from the reservoir and within the supply zone.	The cause of the incident could not be determined. The investigation determined improvements to administration, training, and awareness of the process for reservoir cleaning and disinfection.
7/04/22	E. coli	Woolloowin/ SEQWSS	The non-compliance was a detection of E. coli from a routine sample. 2MPN E. coli organisms per 100mL was detected. Follow up samples exhibited no continued presence of E. coli.	The sample exhibited <0.1mg/L total chlorine at time of sampling. Network flushing was undertaken. Responsive samples were taken from the relevant sample points in the supply zone.	No conclusive evidence could be found to demonstrate the source of the detection. The incident is deemed to be a result of laboratory processing contamination.
13/04/22	E. coli	Seventeen Mile Rocks/ SEQWSS	The non-compliance was a detection of E. coli from a routine sample. 1MPN E. coli organisms per 100mL was detected. Follow up samples exhibited no continued presence of E. coli.	The sample exhibited 2.1mg/L total chlorine at time of sampling. Network flushing was undertaken. Responsive samples were taken from the relevant sample points in the supply zone.	No conclusive evidence could be found to demonstrate the source of the detection. The incident is deemed to be a result of laboratory processing contamination.

5. INCIDENTS REPORTED TO THE REGULATOR

Sample Date	Type	Location/ Supply Scheme	Description	Immediate corrective action	Investigation outcomes and further actions
20/04/22	Chlorine	Aratula/ Boonah- Kalbar	The non-compliance was a detection of total chlorine from routine samples in Aratula. The maximum result was 6.7mg/L in the supplying reservoir.	The upstream reservoirs were rapidly drained and filled to dilute the drinking water. The network was flushed with concurrent field testing.	The investigation determined a fault in temporary manual dosing processes enacted post project site augmentation, manual dosing was subsequently cancelled. The disinfection at the site continues to perform without dosing.
11/05/22	E. coli	Aratula/ Boonah- Kalbar	<p>The non-compliance was a detection of E. coli from a routine sample. 1MPN E. coli organisms per 100mL was detected.</p> <p>Follow up samples exhibited no continued presence of E. coli.</p>	<p>The sample exhibited 1.9mg/L free chlorine at time of sampling.</p> <p>Unable to enact responsive actions due to local flooding.</p>	<p>No conclusive evidence could be found to demonstrate the source of the detection.</p> <p>The incident is deemed to be a result of laboratory processing contamination.</p>
Report date – 03/06/22	Security	Rosewood/ SEQWSS	<p>Malicious damage and vandalism were detected during a routine security inspection.</p> <p>Follow up drinking water samples of the supply zone exhibited no abnormal water quality concerns.</p>	<p>The reservoir was isolated and Queensland Police Forensic Units collected evidence. Portable CCTV installed on site.</p> <p>Responsive samples were taken from the reservoir and within the supply zone.</p>	Urban Utilities will continue to maintain and improve security at our reservoir sites.
8/06/2022	Chlorate	Warrill View/ SEQWSS	The non-compliance was a detection of 1.1mg/L chlorate from routine a routine sample in the Warrill View supply zone.	<p>The upstream sodium hypochlorite dosing unit chemical tank was emptied, cleaned and refilled with new sodium hypochlorite.</p> <p>Responsive sampling exhibited chlorate below the Queensland Health interim guideline value for chlorate of 0.8mg/L</p>	Improved chlorine dosing unit telemetry and operating protocols to manage sodium hypochlorite tank levels.





6. CUSTOMER SATISFACTION

Urban Utilities recognises the value of community engagement in building trust in its brand, and the delivery of service excellence. We recognise that customers or members of the community may need to provide feedback if a service or product fails to meet their expectations or our standards. This feedback is captured, recorded, and monitored to help identify any trends and possible areas of improvement in the operation, maintenance, and management of our drinking water network. This commitment is a key component of our continued pursuit of innovative ways of working.

While various water quality enquiries are received throughout the year, a ‘water quality complaint’ is registered when a person contacts us and expresses dissatisfaction regarding the quality of our drinking water². Complaint categories are shown in Table 5.

Table 5: Water quality complaint categories

Water quality complaint category	Commentary
Dirty	These complaints typically followed maintenance activity on the water distribution network.
Cloudy Water	Water that is milky or cloudy and odourless is caused by fine air bubbles. Milky water is usually caused by maintenance work on the water network, such as a service shutdown during pipe repair. The issue should disappear within a couple of days after the maintenance is completed.
Taste/odour	Taste and odour complaints can vary widely based on the customer’s perception. These were addressed by flushing the water main when required. The most common taste and odour complaint descriptions included chlorine, metallic and chemical tastes.
Health Concern	All calls received from customers who suspect their drinking water may be associated with a health concern they are experiencing are classified as complaints.
Other	This classification captures complaints that do not fall within the standard Urban Utilities’ categories.

² ISO 10002:2018 Customer satisfaction – guidelines for complaints handling in organizations

6. CUSTOMER SATISFACTION

6.1 WATER QUALITY COMPLAINTS PERFORMANCE FY22

In FY22, we received 345 water quality complaints. Water quality complaints performance is categorised by type (figure 2) and region (figure 3).

Table 6 shows Urban Utilities’ performance against the Customer Service Standards as published in the Residential and Business Customer Charters. Our Charters outline the commitments, responsibilities, and standards that our customers can expect from us in relation to the water we provide. The water quality complaints result for FY22 translates to 0.52 complaints per 1,000 properties connected, well under the Customer Service Standard of six water quality complaints per 1,000 connected properties, per year.

Table 6: Customer water quality complaints by region FY22

Region	Health concern	Dirty water	Cloudy water	Taste & odour	Other	Total	Customer property count	Complaints/ 1000 properties
BCC Brisbane	60	79	9	109	16	273	551,437	0.50
ICC Ipswich	13	7	1	16	3	40	86,721	0.46
LVRC Lockyer Valley	10	0	0	1	2	13	11,687	1.11
SRC Somerset	2	3	0	7	0	12	6,123	1.96
SRRC Scenic Rim	5	1	0	1	0	7	8,121	0.86
Total	90	90	10	134	21	345	664,089	0.52

Figure 2: Water quality complaints by type

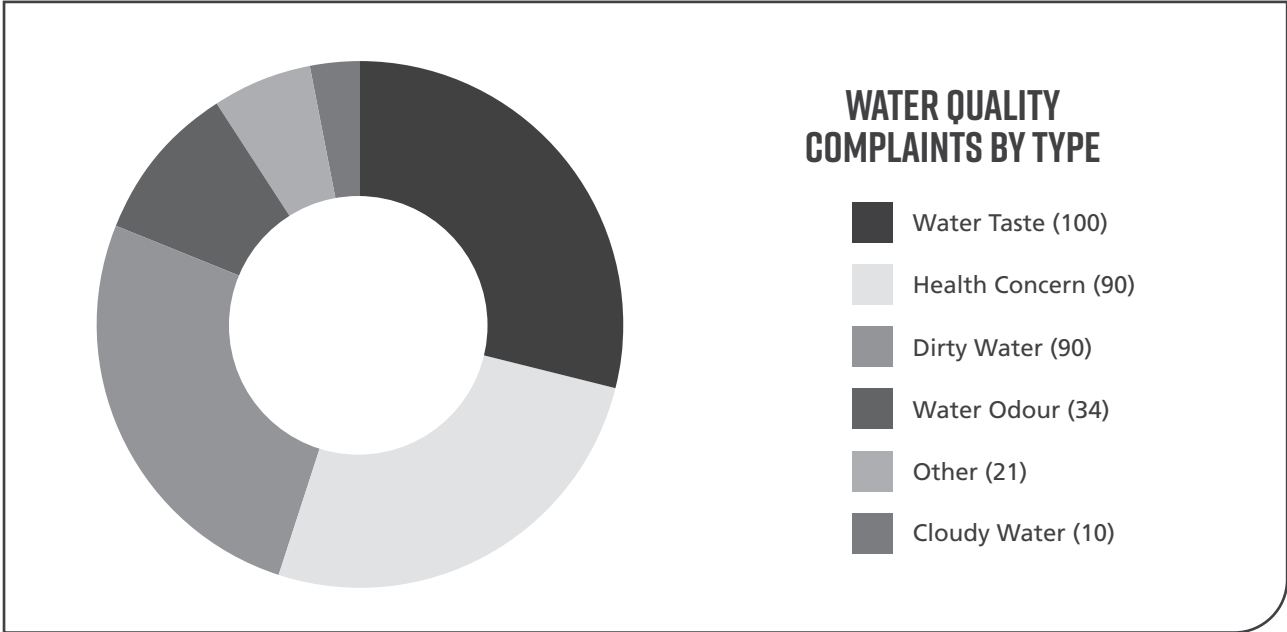
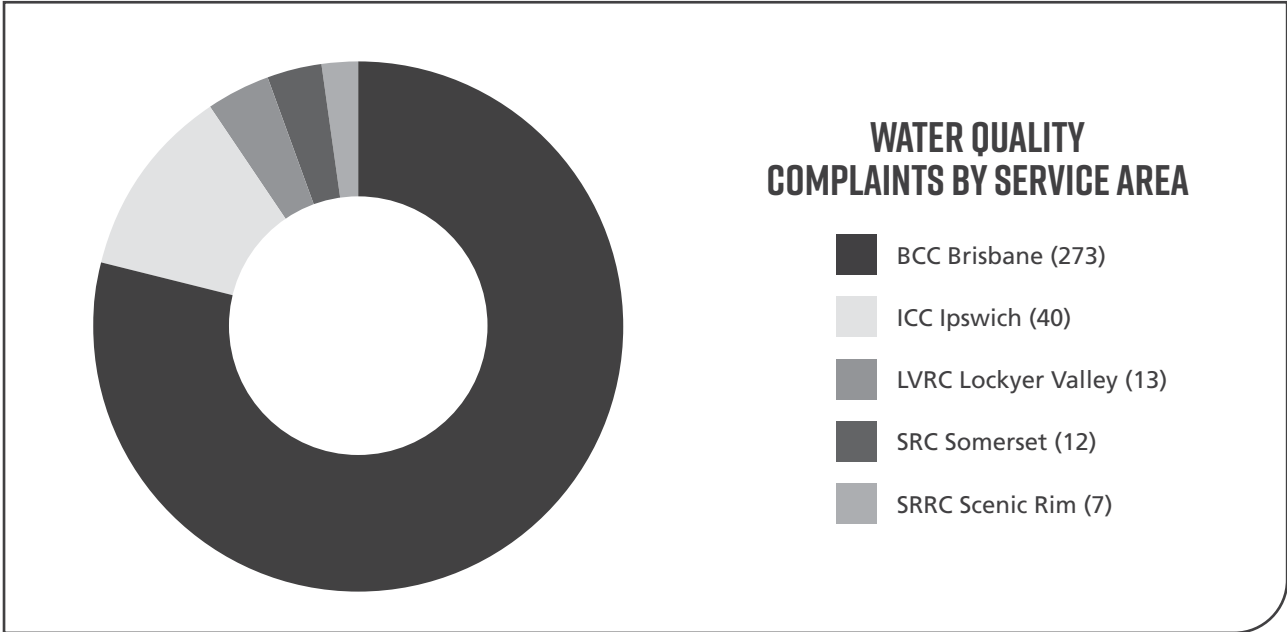


Figure 3: Water quality complaints by service area



6. CUSTOMER SATISFACTION

Figure 4: Total water quality complaints by type-Financial year comparison³

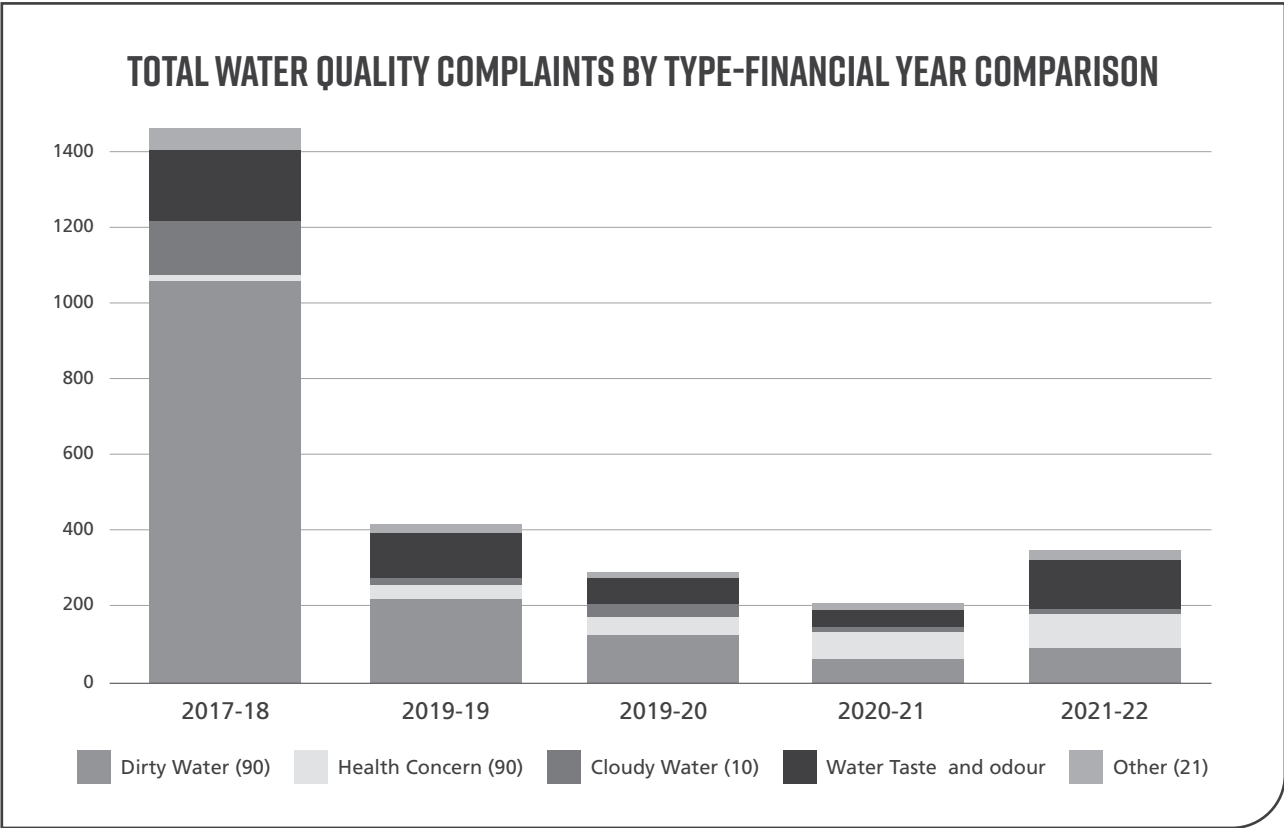


Figure 4 shows Urban Utilities’ performance regarding total water quality complaints by type since 2017/18. Water Quality Officers investigated each complaint related to health concern from the drinking water supply by testing at the customer’s tap and/or at selected points in the water distribution system close to the customer’s property. Data reviewed and reported back to the customer with findings.

Urban Utilities has contacts-based trigger for managing emerging local issues, when we receive greater than 15 requests for service of a similar nature in a local area, we enact our emergency management protocols. After the SEQ drought-breaking rains in the Brisbane drainage basin late 2021, the treated water quality from the Mount Crosby treatment plant supplying western and central areas of Ipswich and the mid and southern parts of Brisbane was impacted by a sudden increase in 2-methylisoborneol (MIB). The initial cluster was experienced 29 December 2021 in which concentrations of 25ng/L MIB was found in the drinking water. This compound caused a significant increase in taste and odour complaints in December 2021 - January 2022.

The event was managed through catchment management response practices undertaken by Seqwater in early January 2022 and by 16 January 2022 the customer contacts had decreased, and the event was declared to have passed. Throughout this, Urban Utilities maintained customer and media relationships.

³ On 1 July 2018, we changed the way we classify and report water quality complaints to align with the Australian /International Standard ISO 10002:2018 Customer satisfaction – guidelines for complaints handling in organizations, and consistency with other water utilities

7. DWQMP REVIEW OUTCOMES

On 27 April 2022, Urban Utilities was advised that the Drinking Water Quality Management Plan Amendment Application submitted to RDMW on 31 January, 2022 had been approved.

As conditioned by the approval notice Urban Utilities has since submitted an updated version of the Risk Management Improvement Program including target dates and responsible roles and has provided an update on the implementation of our Disinfection Management Strategy implementation.



GLOSSARY

<	Less than
>	Greater than
2-Methyl isoborneol	A compound produced from algae or bacteria in catchments contributing to taste and odour of water typically described as earthy, musty, swampy or metallic. May become noticeable at greater than 5ng/L.
Aluminium (Al)	A metallic element of some coagulants used for coagulation during drinking water treatment
Ammonia (NH3)	A highly soluble compound resulting from the decomposition of organic matter containing nitrogen. Ammonia will be detected in chloraminated water as it is a component of chloramine.
Australian Drinking Water Guidelines 2011 (ADWG)	The guidelines were developed by the National Health and Medical Research Council (NHMRC) and undergo rolling revision to ensure they represent the latest scientific evidence on good quality drinking water.
Bulk water	The treated water supplied from the Queensland Bulk Water Authority (Seqwater) to distributor retailers, including Urban Utilities.
Chloramination / chloramine	The application of chlorine and ammonia to create monochloramine (NH2Cl), a stable disinfectant that is added to drinking water to inactivate bacteria or to oxidise undesirable compounds. Chloramines persist for a longer time than chlorine and as a result, are used in longer water distribution systems.
Chlorate	A compound resulting from the breakdown of sodium hypochlorite
Chlorine – Free	The residual formed with chlorine dosage once all the chlorine demand has been satisfied. This chlorine is free to inactivate microorganisms.
Chlorine – Total	Total chlorine is the sum of combined and free chlorine including chloramine.
CFU/100mL	Colony Forming Units per 100 millilitres.
Colour (True)	Colour is mainly due to the presence of dissolved substances from organic matter in water, such as decaying leaves and vegetation. True colour refers to the colour of water after particles of organic matter have been removed through filtration and is the measurement of the extent to which light is absorbed by the water.
Department of Regional Development, Manufacturing and Water	The Queensland Government department responsible for overseeing Queensland’s water industries to ensure these essential services are provided to Queenslanders in a safe, efficient and reliable way.
Dichloroacetic acid	Dichloroacetic acid is a disinfection by-product as a consequence of the reaction of chlorine with natural organic matter and bromide ions in the raw water supply.
Disinfectant	An agent that inactivates microorganisms which cause disease. Urban Utilities uses either chlorine or chloramine.
Disinfection by-products (DBPs)	A group of by-products that may form under certain conditions when chlorine is used to disinfect drinking water.
Drinking water	Water that is suitable for human consumption.

Drinking Water Quality Management Plan (DWQMP)	Drinking Water Quality Management Plan as required by the Water Supply (Safety and Reliability) Act 2008 (Qld). The purpose of a DWQMP is to protect public health by implementing a risk-management system to manage the quality of drinking water.
Drinking Water Quality Management System (DWQMS)	Urban Utilities’ DWQMS is used to ensure our drinking water supplies are managed effectively to provide high quality drinking water and to ensure the protection of public health.
Escherichia coli (E. coli)	A bacterium when present in water indicates that the water may be contaminated by faecal matter and therefore there is the potential to cause illness when people drink the water. E. coli can be killed by standard disinfection practices.
Fluoride (F)	Fluoride is regarded as a useful constituent of drinking water, particularly for the prevention of tooth decay. Concentration is maintained within the recommended levels set by QHealth.
Geosmin	A compound produced from algae or bacteria in catchments contributing to taste and odour of water typically described as earthy, musty, swampy or metallic. May become noticeable at greater than 5ng/L.
Haloacetic acids	A group of disinfectant by-products that are formed when disinfectants, such as chlorine or chloramine, are used to treat water and react with naturally occurring organic and inorganic matter present in source waters.
Iron (Fe)	An element which, when found in water, can cause a brownish discolouration. Limits on the amount of iron in water are usually due to taste and appearance factors rather than any detrimental health effects.
km	A kilometre, which is 1,000 metres
Manganese (Mn)	Manganese in a water supply may affect taste, cause staining of clothes, produce deposits in pipes and contribute to turbidity.
Megalitre (ML)	One million litres or 1,000 kilolitres
Monochloroacetic acid	One of the groups of five haloacetic acids is formed when chlorine or other disinfectants are used to treat drinking water.
mg/L	milligrams per litre
MPN/100mL	Most Probable Number per 100 millilitres
Naturally occurring	Present in the natural environment as minerals, elements, salts and other substances.
ng/L	Nanograms per litre
Network	An arrangement or system of pipes, pumps and reservoirs used for distributing water.
Nephelometric Turbidity Unit (NTU)	A measure of turbidity which is the cloudiness or haziness of water caused by particles that are generally invisible to the naked eye. The measurement of turbidity is a key test of water quality.

GLOSSARY

Nitrate (NO3)	The most stable form of combined nitrogen in water. Present in surface waters in small amounts generally not removed through treatment. Nitrate can be found in chloraminated water supplies as a result of chloramine breakdown.
pH	The pH value indicates if a substance is acidic, neutral or alkaline. It is calculated from the number of hydrogen ions present and is measured on a scale from zero to 14. A pH greater than seven is alkaline, less than seven is acidic and seven is neutral. The pH of public water supplies should be slightly alkaline to minimise corrosion and stabilise disinfection.
Reservoir	A water tower or tank used for the storage of treated water within the water distribution system.
RMIP	Risk Management Improvement Program
SAS Lab	Scientific Analytical Services Laboratory, Urban Utilities.
Scheme	The system distributing drinking water to customers.
Seqwater	Queensland Bulk Water Supply Authority, trading as Seqwater. The bulk drinking water provider for Urban Utilities.
Shareholders	Brisbane and Ipswich City Councils, and the Lockyer Valley, Scenic Rim and Somerset Regional Councils.
Stakeholder	All those who are either affected by or who can affect the activities of an organisation, namely customers, governments, regulators, the media, non-government organisations, local residents and employees.
The Regulator	See Department of Regional Development, Manufacturing and Water.
Total Dissolved Solids (TDS)	A measure of inorganic salts and small amounts of organic matter that are dissolved in water. Usually determined by converting electrical conductivity to TDS values.
Total hardness	Total hardness is the sum of the concentrations of calcium and magnesium ions expressed as calcium carbonate (CaCO3) equivalent. Waters with a high mineral content (a total hardness in excess of 200 mg/L) are considered hard.
Total Trihalomethanes (tTHMs)	A group of disinfection by-products that generally form when chlorine is used to disinfect drinking water.
Trichloroacetic acid	One of the groups of five haloacetic acids is formed when chlorine or other disinfectants are used to treat drinking water.
Turbidity	Refers to the presence of suspended solids in water causing a muddy or discoloured appearance. Turbidity is measured in Nephelometric Turbidity Units (NTU).
Verification Monitoring Program (VMP)	Water quality verification monitoring is used as the final check that the barriers and preventive measures used in protecting the public health from drinking water risks are performing effectively. Verification monitoring is used to verify the quality of drinking water supplied to Urban Utilities' customers as well as collecting data to complement future operational monitoring programs.
Water Treatment Plant (WTP)	A plant that improves water quality by removing impurities through filtration and disinfection.



9. APPENDICES

APPENDIX A: ANNUAL DRINKING WATER QUALITY PERFORMANCE REPORT 21-22

This report is available on our website:
urbanutilities.com.au/publications





FOR MORE INFORMATION

Visit urbanutilities.com.au
or call 13 26 57

Urban Utilities
GPO Box 2765 Brisbane QLD 4001

ABN 86 673 835 011

© Urban Utilities 2022