

Drinking Water Service Annual Report 2024-2025FY QUILPIE SHIRE COUNCIL (SPID 108)

December 2025





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EXECUTIVE SUMMARY

Registered drinking water suppliers in Queensland (QLD) are required under the *Water Supply (Safety and Reliability) Act 2008* (the Act), Section 93(3), to operate under an approved Drinking Water Quality Management Plan (DWQMP) with the aim of providing safe drinking water to protect public health. Under Section 142 of the Act, they also require to prepare and submit to the Regulator each financial year, a Drinking Water Service Annual Report. This is to demonstrate satisfactory implementation of their DWQMP (including any Conditions) and drinking water performance.

Quilpie Shire Council (QSC or Council) is a registered Drinking Water Service Provider (SPID 108), and this Drinking Water Service Annual Report (Annual Report) documents the performance in implementing their DWQMP (October 2022) for the 2024-25 financial year (FY).

QSC operates two drinking water schemes, one for each township of Quilpie and Eromanga. The drinking water supply schemes are comprised of bores, a water treatment plant (Eromanga), pump stations, service reservoirs and a distribution network. Adavale is a township in the QSC area and is supplied with non-potable water only hence does not form part of this Annual Report.

Council has undertaken key risk management improvements (Table 2) and water quality testing (Section 4) to ensure the supply of safe drinking water. There were no detections of *E. coli* during the reporting period, indicating supply of safe drinking water to their community. However, not all planned testing was undertaken and actions to address sampling consistency have been captured in QSC's risk management improvement plan. This gap was also noted in the recent regular audit conducted during May 2025.

Physical-chemical testing of the water quality in the bores and reticulation system showed natural occurring fluoride slightly above the ADWG health limits. In consultation with QLD Health, QSC provides information leaflets to the community to address any concerns, otherwise overall water quality conformance with the ADWG health guideline limits was achieved. This also resulted in no reportable events to the Regulator.

The were no reportable drinking water quality customer complaints, indicating positive customer satisfaction.

No DWQMP formal review was undertaken during the reporting period with the next one due December 2025.

A regular audit of QSC DWQMP was conducted during May 2025, which resulted in one major and six minor non-compliances with 12 recommendations (RECs) and five opportunities for improvement (OFI). A summary of the Audit findings is summarised in this report. Improvements to address these non-conformances will be managed via QSC's Risk Management Improvement Plan. The next regular audit will be scheduled for 2029.



1. INTRODUCTION

Registered drinking water suppliers in Queensland (QLD) are required under the *Water Supply (Safety and Reliability) Act 2008* (the Act), Section 93(3), to operate under an approved Drinking Water Quality Management Plan (DWQMP) with the aim of providing safe drinking water to protect public health. Approval is granted by the Department of Local Government, Water and Volunteers (DLGWV), the Regulator. Under Section 142 of the Act, they also require to prepare and submit to the Regulator, a Drinking Water Service Annual Report, each financial year. This is to demonstrate satisfactory implementation of their DWQMP (including any Conditions) and their drinking water performance.

Quilpie Shire Council (QSC) is a registered Drinking Water Service Provider with Identification (SPID 108), operating under an approved DWQMP (2022), in accordance with the Act. This is done through proactive identification and minimisation of water related risks, to ensure a consistent supply of safe drinking water to the community to protect public health.

This Drinking Water Service Annual Report (Annual Report) documents the performance of QSC in implementing their DWQMP and water quality performance, during the 2024-25 financial year (i.e. 1st July 2024 to 30th June 2025).

This Annual Report has been submitted to the Regulator to fulfil QSC's regulatory requirements and is available to customers via Council's website or for inspection upon request at Council's office located in Quilpie.

1.1. Scope

The Annual Report has been prepared to fulfil the legislative DWQMP reporting requirements and includes the following:

- Activities undertaken over the financial year in operating QSC water service;
- Drinking water quality summary; and
- Summary of performance in implementing QSC approved DWQMP, including any DWQMP reviews and regular audits.

1.2. Purpose

This Annual Report aims to:

- be a reference document for the Regulator, as well as customers, on Council's performance in relation to the DWQMP reporting obligations under the Act, for the reporting period; and
- provide a summary of Council's performance in implementing the DWQMP.



2. SCHEME OPERATED

QSC is located in south-western QLD and covers an area of 67,482 km² with a permanent population of approximately 700 people. Quilpie, Eromanga and Adavale are the townships within the Quilpie Shire with two drinking water supply schemes, with one located in Quilpie and the other in Eromanga. Adavale is supplied non-potable water only hence does not form part of this Annual Report.

The administration centre of the shire is located in the township of Quilpie.

Quilpie water scheme sources its water from two deep Artesian bores with no treatment prior to supplying it directly to the community. The source water temperature is very high (65-70°C) hence it is considered an effective control against most pathogens.

The Eromanga water scheme sources water from four sub-Artesian bores, which undergoes treatment before it is distributed to the community. Details of each scheme are summarised in Table 1.

Table 1 - Summary of Drinking Water Schemes.

Town (Scheme)	Water Source	Treatment Processes	Population Served	No. Connections	Demand
Quilpie (Quilpie Scheme)	2xArtesian Bores	No treatment. Direct supply.	530	427	1,200 kL/d
Eromanga (Eromanga Scheme)	4xsub-artesian Bores	Filtration, UV, Reverse Osmosis & chlorination	45	43	104 kL/d



3. DWQMP IMPLEMENTATION

QSC DWQMP implementation is based on the Australian Drinking Water Guidelines (ADWG) framework, which takes a proactive risk management approach to manage the safe supply of drinking water to the local communities of Quilpie and Eromanga.

This includes preventative controls, such as inspection of boreholes and storage reservoir tank integrity against ingress, effective maintenance procedures to fix broken mains to prevent contamination, effective water treatment plant operation by trained staff to meet critical control point limits and water quality monitoring against the ADWG health and aesthetic limits.

3.1. Risk Management Improvement Plan

As part of continuous improvement, gaps in the implementation of the DWQMP are captured and prioritised in the drinking water Risk Management Improvement Plan (RMIP). Key priorities are summarised in Table 2. During the 2024 – 2025 FY, Council completed five and commenced five actions associated with eight Risk Management Improvement Items, summarised below:

- Developed maintenance and operational procedures for Eromanga's WTP;
- Undertook refurbishment of Eromanga's WTP;
- Uploaded all related drinking water and sewage documents (eg. Procedures, sampling documents, etc) into Council's InfoExpert document control system;
- Commenced review and update of the Water Main Repair procedures to address microbial risk contamination;
- Commenced hazard control of high-risk sites (eg. Sewage dump point barrier to prevent spills into water table) to reduce ingress into water distribution system; and
- Commenced borehole water quality sampling investigation to assess pathogen risks in sub-artesian water.

The RMIP will be updated during the 2025/26FY, to incorporate and address the key regular audit findings undertaken May 2024, with details summarised in Section 8.



Table 2 – Drinking Water Risk Management Improvement Plan

Scheme	Component	Actions	Target Date	Responsible Officer	Comments	Status (Revised Target)
Quilpie (Q1)		Review and update Operation and Maintenance Procedures		Director of	Water Main Repair procedure developed.	Complete
& Eromanga (E2)	Whole of System	that address the microbial contamination risks for the maintenance and repair of water mains.	Jun'23	Engineering Services	Updating Water Main Repair procedure to include best practice hygiene steps to prevent microbial contamination.	In Progress (2025/26FY)
0.:1.:. (02)	Whole of System		Jun'23	Dinastanaf	Using Council's document control system InfoExpert, to capture DWQMP records, procedures, documentation, lab reports (eg. operational & verification monitoring), related to both water and sewage.	Complete
Quilpie (Q2) & Eromanga (E4)		Consolidate all drinking water data and documentation so that it can be managed centrally.		Director of Engineering Services	Improve use of <i>InfoExpert</i> by establishing suitable naming conventions & ease of document retrieval.	In Progress (2025/26FY)
					Develop database to capture with ability to trend water quality sampling results. Investment in swimlocal with full commissioning planned.	In Progress (2025/26FY)
Quilpie (Q3) & Eromanga (E5)	Distribution System Review schemes and identify if there are any hazardous Connections to stock watering Review schemes and identify if Dec'23 Director of Engineering Services			Concrete slab has been built at the sewerage dump point to isolate any spills from potentially fouling the water table. Budget: Q3 = \$15k & E5 = \$15k	In Progress Revised date TBC post	



Scheme	Component	Actions	Target Date	Responsible Officer	Comments	Status (Revised Target)
		points or other potential high- risk sites.				DWQMP review.
Eromanga (E1)	Water Source	Undertake bore water quality investigation to assess the risk of pathogens in the sub-artesian water.	Jun'23	Director of Engineering Services	Budget: E1 = \$40k	In Progress Revised date TBC post DWQMP review.
		Engage a water treatment		Director of Engineering Services	Simmonds and Bristow (S&B) engaged to do a full refurbishment of the WTP.	Complete
Eromanga (E3)	Water Treatment Plant	review, critical maintenance and develop detailed and	Jun'23		S&B develop full documentation of the operation of the reverse osmosis process.	Complete
		succinct WTP Operation and Maintenance Procedures.			S&B update to all operation and maintenance procedures.	Complete



4. OPERATION AND VERIFICATION MONITORING

Council undertakes best endeavors to conduct water quality testing, of the Quilpie and Eromanga water schemes, in accordance with their approved DWQMP (2022). Water quality compliance is against the ADWG health guideline limits, QLD Public Health Regulation and any DWQMP Regulator approval conditions, to ensure the safe supply of drinking water to the community.

As part of Council's **Verification Monitoring Program** (VMP), **quarterly** samples are required to be collected from the bores and distribution network and sent to an externally NATA accredited QLD Health laboratory for analysis.

Operational Monitoring Program (OMP) for drinking water quality is conducted in-house with **fortnightly** testing for *E.coli* for both water schemes, additional to **turbidity** and **weekly free chlorine residual** testing for the Eromanga treated drinking water. Results are compared against the ADWG health guidelines limits and against Eromanga's WTP critical control limits, to confirm treatment plant operational performance on a routine basis.

The approved DWQMP parameters to be tested for each water scheme are summarised in Table 3. The water quality results for the Quilpie and Eromanga water schemes, for this reporting period, are captured in Section 4.1 and 4.2 respectively. Note that the water quality results include additional parameters.

Table 3 – Council's DWQMP Monitoring Parameters

WATER SCHEME	QUILPIE	QUILPIE	EROMANGA	EROMANGA
PARAMETER	Operational (ref. DWQMP Table 6.1)	Verification (ref. DWQMP Table 6.3)	Operational (ref. DWQMP Table 6.2)	Verification (ref. DWQMP Table 6.4)
E. coli	~	~	✓	>
Free Chlorine	х	х	✓	х
рН	х	~	х	~
Temperature	х	~	х	~
True Colour	х	~	х	~
Turbidity	х	~	✓	~
Chloride	х	~	х	~
Iron	х	✓	х	~
Silica	х	~	х	~
Sodium	х	~	х	✓
Manganese	х	~	х	~
Fluoride	х	~	х	~



WATER SCHEME	QUILPIE	QUILPIE	EROMANGA	EROMANGA	
Phosphate	х	х	х	>	
Nitrate	х	х	х	~	
Chlorate	х	х	х	~	

4.1. Summary of Water Quality Results - Quilpie

A summary of Quilpie's Verification and Operational Monitoring results are captured in Table 4 and Table 5 respectively, with the *E. coli* annual compliance captured in Table 6.

The parameters in **bold** are those required to be tested as per the currently approved DWQMP, summarised in Table 3 above, with the remaining being additional parameters tested. Water quality compliance is against the ADWG health guideline limits, QLD Public Health Regulation and any DWQMP Regulator approval conditions.

4.1.1. Microbial Monitoring

For microbial performance, there were no detections of *E. coli* during the reporting period for both the Operational and Verification monitoring programs, hence 100% compliance was achieved.

Other microbial parameters, such as HPC and total coliforms, are good indicators if the supplying distribution system is free from biofilm build-up in the water pipes, which can harbor opportunistic pathogens. The results for total coliforms, HPC, Pseudomonas aeruginosa and Enterococci indicated no presence of these microorganisms would indicate the supplying distribution network is healthy and clean.

4.1.2. Physical / Chemical Monitoring

Verification monitoring also includes drinking water testing for physical and chemical parameters. Excluding fluoride, water quality compliance with the ADWG health guideline limits was achieved.

Fluoride occurs naturally in the source water and has been monitored to be consistently stable and slightly above the ADWG health limit for some time, which both Council and the Regulator are aware of. Thus Council provides a Fluoride Fact sheet https://quilpie.qld.gov.au/wp-content/uploads/2023/11/Quilpie-Fluoride-Dec-2015-1.pdf to help the community better understand the potential impacts of slightly elevated fluoride levels. This can be found on Council's website https://quilpie.qld.gov.au/ and Facebook page https://guilpie.qld.gov.au/ and Facebook page https://www.facebook.com/CouncilQuilpieShire/, additional to annual notifications to residents.

For aesthetic limits, sodium and pH were just above the ADWG aesthetic limits, which impacts the taste threshold though no health concerns. All other required parameters were compliant against the ADWG aesthetic limits.



Table 4 - Quilpie Drinking Water Quality Performance - Verification Monitoring (2024-2025FY)

Parameter	Units	No. Samples required/yr	Actual No. Collected	Min. Value	Max. Value	Mean	ADWG Limit (Health/Aesthetic)	No. of Non- Compliant Results	ADWG Compliance (Aesthetics / Health)	Comments
Micro										
*E.coli	MPN/100mL	8	4	<1	<1	<1	<1¹ (H)	0	✓	
Total Coliforms	MPN/100mL	0	4	<1	<1	<1		-	NA	Sign of virtually no organics / biofilm hence clean distribution network.
HPC	CFU/100mL	0	4	<10	<10	<10		-	NA	Sign of virtually no organics / biofilm hence clean distribution network.
Pseudomonas aeruginosa	MPN/100mL	0	4	<1	<1	<1		-	NA	Sign of virtually no organics / biofilm hence clean distribution network.
Enterococci	CFU/100mL	0	4	<1	<1	<1		-	NA	Sign of virtually no organics / biofilm hence clean distribution network.
Physical /	Chemical									
*рН		8	4	8.4	8.6	8.5	6.5-8.5(A)	2	х	Occurred 22/10/24. High pH can lead to pipe corrosion & scaling however pH was just above limit hence impact would be minimal.
Electrical Conductivity	μS/cm	0	4	843	979	915	NA	-	NA	
*True Colour	HU	8	4	1	2	2	15(A)	0	✓	
Total Dissolved Solids	mg/L	0	4	545	630	585	1200(A)	0	~	Naturally occurring. 600-900 in fair range with > 1,200 being unpalatable.
Sulfate	mg/L	0	4	6	6	6	250(A)	0	✓	·
*Chloride	mg/L	8	4	85	95	90	250(A)	0	✓	
*Fluoride	mg/L	8	4	1.6	1.7	1.7	1.5(H)	4	Х	(22/10/24 & 17/6/25) Naturally occurring just above health limit. Council & Regulator aware & controls in place to inform community via distribution of Fluoride Fact sheets.
*Temperature ²	⁰С	8	0	-	-	-		-	-	Not recorded at time of sampling. Bore temperature is normally in the range of 65-70C.



Parameter	Units	No. Samples required/yr	Actual No. Collected	Min. Value	Max. Value	Mean	ADWG Limit (Health/Aesthetic)	No. of Non- Compliant Results	ADWG Compliance (Aesthetics / Health)	Comments
Total Hardness	mg/L	0	4	5	6	6	200(A)	0	~	< 60mg/L soft but possibly corrosive, impacting plumbing fittings.
*Turbidity	NTU	8	4	0.18	3.3	0.99	5(A)³	0	~	Turbidity is generally < 1 hence 3.3 occurred 22.10.24 (Bulloo Park), which could be indication of ingress or pipe sediment disturbance.
Calcium	mg/L	0	4	2.1	2.5	2.4	NA	-	NA	
Magnesium	mg/L	0	4	<0.2	<0.2	<0.2	NA	-	NA	
*Sodium	mg/L	8	4	212	251	230	180(A)	4	X	Naturally occurring. Limit is taste threshold thus no health concerns.
Phosphate	mg/L	0	4	0.03	0.04	0.05	NA	-	NA	
Potassium	mg/L	0	4	2.4	2.5	2.4	NA	-	NA	
Aluminium	mg/L	0	4	0.03	0.03	0.04	0.2(A)	0	✓	
Arsenic	mg/L	0	2	0.0002	0.0006	0.0004	0.01(H)	0	✓	
Boron	mg/L	0	2	0.46	0.53	0.50	4(H)	0	✓	
Cadmium	mg/L	0	2	0.0004	0.0004	0.0004	0.002(H)	0	✓	
Chromium	mg/L	0	2	0.0003	0.0003	0.0003	0.05(H)	0	✓	
Copper	mg/L	0	4	<0.002	0.003	0.016	2(H) 1(A)	0	✓	
*Iron	mg/L	8	4	<0.01	0.24	0.13	0.3(A)	0	✓	
*Manganese	mg/L	8	4	0.005	0.013	0.008	0.5(H) 0.1(A)	0	✓	
Nickel	mg/L	0	2	0.001	0.001	0.001	0.02(H)	0	✓	
*Silicon (Silica)	mg/L	8	4	44	45	45	80(A)	0	✓	
Zinc	mg/L	0	4	<0.01	0.01	0.01	3(A)	0	✓	

^{*}Bolded Parameters are those as per current DWQMP, tested quarterly.

<u>A – aesthetic guidelines limi</u>ts as per the ADWG. Does not impact public health.

H – health-based guidelines limits as per the ADWG. If exceeded, requires reporting to the Regulator, investigation and corrective actions.

¹ Require 98% of samples compliant for previous 12 months will meet requirements. See Table 6.

² Quilpie bore water's very high temperature (est. 65-70°C) is a control against some pathogens, as the water is not chlorinated hence measuring at point of collection is important, otherwise online monitoring.

³ Changes in turbidity may indicate ingress into the water system and turbidity < 1NTU is required for effective disinfection (ADWG). NA – Not Applicable.



Table 5 – Quilpie Drinking Water Quality Performance - Operational Monitoring (2024-2025FY)

Parameter	Units	No. Samples required/yr	Actual No. Collected	Results	ADWG Limit (Health/Aesthetic)	No. of Non- Compliant Results	ADWG Compliance (Aesthetics / Health)	Comments			
Microbial											
E.coli	MPN/100mL	78	3	<1 (not detected)	<1¹(H)	0	~	Sampled 11/12/24 1. Galah St 2. Bulloo Park West 3. Plumbers Shed Significant under sampling vs DWQMP.			

¹Require 98% of samples compliant for previous 12 months to meet requirements. See Table 6.

Table 6 – Quilpie E.coli Annual Value Compliance (2024-2025FY)

Month	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
No. Samples Collected	0	0	0	2	0	3	0	0	0	0	0	2
No. Samples <i>E.coli</i> Detected	-	÷	÷	0	-	0	-	-	-	-	-	0
No. Samples collected previous 12 months	17	15	15	15	15	13	16	16	12	9	9	7
No. samples <i>E.coli</i> detected previous 12 months	0	0	0	0	0	0	0	0	0	0	0	0
% of Sample that comply (Target=98%)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

^{1.} The annual value for E.coli is calculated for each month and must not be detected in at least 98% of the samples reviewed previous 12 months.

^{2.} Includes all E.coli sample results both from Verification and Operational monitoring.



4.2. Summary of Water Quality Results - Eromanga

A summary of Eromanga's Verification Monitoring results for raw bore water and treated water are captured in Table 7 and Table 8 respectively and Operational Monitoring results in Table 9. *E.coli* annual compliance is captured in Table 10.

The parameters in **bold** are those required to be tested as per the currently approved DWQMP, summarised in Table 3 above, with the remaining being additional parameters tested. Water quality compliance is against the ADWG health guideline limits, QLD Public Health Regulation and any DWQMP Regulator approval conditions.

4.2.1. Microbial Monitoring

For microbial performance, there were no detections of *E. coli* during the reporting period for both the Operational and Verification monitoring plans, hence 100% compliance was achieved.

Other microbial parameters, such as HPC and total Coliforms, are good indicators that the supplying distribution system is free from biofilm build-up in the water pipes, which can harbor opportunistic pathogens. The raw and treated water results had minimal to no presence of total coliform, HPC, Pseudomonas aeruginosa and Enterococci, indicating virtually no presence of organics in the source water and that the distribution network pipework is healthy and clean.

4.2.2. Physical / Chemical Monitoring

Verification monitoring also includes drinking water testing for physical and chemical parameters. There were no ADWG health limit exceedances for physical and chemical parameters during the reporting period.

For aesthetic limits, the source raw bore water, prior treatment, has naturally occurring minerals of which sulfate, chloride, sodium, hardness and total dissolved solids were all above the ADWG Aesthetic limits, as shown in Table 7. These parameters impact on the taste threshold, with no health concerns and post treatment, as shown in Table 8Table 7, these parameters were all compliant, making the water more palatable than the raw bore water.

As shown in Table 8, zinc exceeded the aesthetic limit on the 22/10/24. Turbidity was >5NTU and iron also exceeded the aesthetic limit on the 17/6/25. These samples were all from the WTP sample location. High results for metals such as zinc and iron can be a result of water asset corrosion and can cause laundry staining, additional to taste issues however there were no Aesthetic exceedances in the distribution system samples nor during any other sample dates nor any reportable customer complaints.



Table 7 - Eromanga Drinking Water Quality Performance - Verification Monitoring – Raw Water Bore (2024/2025FY)

Parameter	Units	No. Samples required/yr	Actual No. Collected	Result (17/6/25)	ADWG Limit (Health/Aesthetic)	No. of Non- Compliant Results	ADWG Compliance* (Aesthetics / Health)	Comments
Micro	bial							
*E.coli	MPN/100mL	4	1	<1	<1¹(H)	0	✓	
Total Coliforms	MPN/100mL	0	1	1		-	NA	Sign of virtually no organics in raw bore water.
HPC	CFU/100mL	0	0	-		-	NA	
Pseudomonas aeruginosa	MPN/100mL	0	1	<1		-	NA	Sign of virtually no organics in raw bore water.
Enterococci	CFU/100mL	0	1	<1		-	NA	Sign of virtually no organics in raw bore water.
Physical /	Chemical							
*pH		4	1	7.1	6.5-8.5(A)	0	✓	
Electrical Conductivity	μS/cm	0	1	2420	NA	-	NA	
*True Colour	HU	4	1	NA	15(A)	0	✓	
Total Dissolved Solids	mg/L	0	1	1480	1200(A)	1	Х	Naturally occurring. 600-900 in fair range with > 1,200 being unpalatable.
Sulfate	mg/L	0	1	251	250(A)	1	Х	Natural component of water. Guideline value is taste threshold. >500 mg/L can have purgative effects.
*Chloride	mg/L	4	1	567	250(A)	1	Х	From natural mineral salts. High concentrations more common in groundwater and certain catchments.
*Fluoride	mg/L	4	0	-	1.5(H)	-	-	
*Temperature	٥C	4	0	-	-	-	-	Not recorded at time of sampling.
Total Hardness	mg/L	0	1	460	200(A)	1	Х	200-500 mg/L – increasing scaling problems.
*Turbidity**	NTU	4	1	0.3	5(A) ³	0	✓	
Calcium	mg/L	0	1	100	NA	-	NA	
Magnesium	mg/L	0	1	51.3	NA	-	NA	



*Nitrate	mg/L	4	1	14.6	50 (H)	0	✓	
*Sodium	mg/L	4	1	348	180(A)	1	X	Naturally occurring. Limit is taste threshold, no health concerns.
*Phosphate	mg/L	4	1	0.07	NA	-	NA	
Potassium	mg/L	0	0	5.1	NA	-	NA	
Aluminium	mg/L	0	0	-	0.2(A)	-	-	
Arsenic	mg/L	0	1	0.0008	0.01(H)	0	✓	
Boron	mg/L	0	0	-	4(H)	-	-	
Cadmium	mg/L	0	1	0.105	0.002(H)	0	✓	
Chromium	mg/L	0	1	0.0006	0.05(H)	0	✓	
Copper	mg/L	0	1	< 0.0002	2(H) 1(A)	0	✓	
*Iron	mg/L	4	1	<0.01	0.3(A)	0	✓	
*Manganese	mg/L	4	1	<0.002	0.5(H) 0.1(A)	0	✓	
Nickel	mg/L	0	1	< 0.001	0.02(H)	0	✓	
*Silicon (Silica)	mg/L	4	1	72	80(A)	0	✓	
Zinc	mg/L	0	1	< 0.010	3(A)	0	✓	

^{*}Bolded Parameters are those as per current DWQMP, tested quarterly.

A – aesthetic guidelines limits as per the ADWG. Does not impact public health.
H – health-based guidelines limits as per the ADWG. If exceeded, requires reporting to the Regulator, investigation and corrective actions.

^{**} ADWG limits are based on treated drinking water (i.e. potable water) not untreated raw bore water however has been left in for this table

¹ Require 98% of samples compliant for previous 12 months will meet requirements. See Table 10.

² Interim QLD Health provisional guideline value 0.8mg/L. Disinfection by-product.

³ Changes in turbidity may indicate ingress into the water system and turbidity < 1NTU is required for effective disinfection (ADWG). NA – Not Applicable.



Table 8 - Eromanga Drinking Water Quality Performance - Verification Monitoring- Treated Water (2024-2025FY)

Parameter	Units	No. Samples required/yr	Actual No. Collected	Min. Value	Max. Value	Mean	ADWG Limit (Health/Aesthetic)	No. of Non- Compliant Results	ADWG Compliance (Aesthetics / Health)	Comments
Micro	bial									
E.coli	MPN/100mL	8	4	<1	<1	<1	<1¹(H)	0	✓	
Total Coliforms	MPN/100mL	0	4	<1	<1	<1		-	NA	Sign of virtually no organics / biofilm hence clean distribution network.
HPC	CFU/100mL	0	4	<10	2	<10		-	NA	Sign of virtually no organics / biofilm hence clean distribution network.
Pseudomonas aeruginosa	MPN/100mL	0	0	-	-	-		-	NA	Sign of virtually no organics / biofilm hence clean distribution network.
Enterococci	CFU/100mL	0	0	-	-	-		-	NA	Sign of virtually no organics / biofilm hence clean distribution network.
Physical / (Chemical									
рН		8	4	6.6	6.9	6.8	6.5-8.5(A)	0	✓	
Electrical Conductivity	μS/cm	0	4	473	527	502	NA	-	NA	
True Colour	HU	8	4	1	2	1	15(A)	0	✓	
Total Dissolved Solids	mg/L	0	4	275	292	281	1200(A)	0	~	Naturally occurring. Based on taste: <600 mg/L is regarded as good quality drinking water.
Sulfate	mg/L	0	4	27	45	36	250(A)	0	✓	
Chloride	mg/L	8	4	103	121	112	250(A)	0	✓	
Chlorate	mg/L	8	0	-	-	-	NA ²	-	-	Not samples collected.
Fluoride	mg/L	8	4	0.1	0.1	0.0	1.5(H)	0	✓	
Temperature	°C	8	0	-	-	-	-	-	-	Not recorded at time of sampling.
Total Hardness	mg/L	0	4	54	87	71	200(A)	0	~	< 60mg/L soft but possibly corrosive, impacting plumbing fittings.
Turbidity ³	NTU	8	4	0.2	13.0	3.2	5(A)³	1	х	17/6/25 (Clean Water Tank 13NTU). System was flushed and system changes made to rectify. Turbidity >1 may impact disinfection effectiveness.
Calcium	mg/L	0	44	12	19	16	NA	-	NA	



Magnesium	mg/L	0	4	5.9	9.4	7.6	NA	-	NA	
Nitrate	mg/L	8	4	3.5	6.6	5.0	50 (H)	0	✓	
Sodium	mg/L	8	4	66	79	72	180(A)	0	✓	
Phosphate	mg/L	8	4	0.02	0.03	0.03	NA	-	NA	
Potassium	mg/L	0	4	1.0	1.1	1.1	NA	-	NA	
Aluminium	mg/L	0	4	0.01	0.01	0.01	0.2(A)	0	✓	
Arsenic	mg/L	0	2	< 0.001	0.001	0.001	0.01(H)	0	✓	
Boron	mg/L	0	2	0.14	0.15	0.15	4(H)	0	✓	
Cadmium	mg/L	0	2	0.000	0.000	0.000	0.002(H)	0	✓	
Chromium	mg/L	0	2	0.000	0.000	0.000	0.05(H)	0	✓	
Copper	mg/L	0	4	0.02	0.29	0.11	2(H) 1(A)	0	✓	
Iron	mg/L	8	4	0.04	1.57	0.46	0.3(A)	1	X	17/6/25 (Clean Water Tank 1.57mg/L).
										Taste threshold 0.3 mg/L. High concentrations stain laundry and fittings. Iron bacteria cause blockages, taste/odour, corrosion.
Manganese	mg/L	8	4	0.003	0.003	0.003	0.5(H) 0.1(A)	0	✓	
Nickel	mg/L	0	2	0.001	0.002	0.002	0.02(H)	0	✓	
Silicon (Silica)	mg/L	8	4	13	18	16	80(A)	0	✓	
Zinc	mg/L	0	4	0.02	3.51	0.95	3(A)	1	Х	22/10/25 (Clean Water Tank 3.51mg/L)
	a a		WWOMD 4							Usually from corrosion of galvanised pipes/ fittings and brasses. Natural concentrations generally <0.01 mg/L. Taste problems >3 mg/L.

Bolded Parameters are those as per current DWQMP, tested quarterly.

A – aesthetic guidelines limits as per the ADWG. Does not impact public health.

H – health-based guidelines limits as per the ADWG. If exceeded, requires reporting to the Regulator, investigation and corrective actions.

¹ Require 98% of samples compliant for previous 12 months will meet requirements. See Table 10.

² Interim QLD Health provisional guideline value 0.8mg/L. Disinfection by-product.

³ Changes in turbidity may indicate ingress into the water system and turbidity < 1NTU is required for effective disinfection (ADWG). NA – Not Applicable.



Table 9 - Eromanga Drinking Water Quality Performance - Operational Monitoring - Treated Water (2024-2025FY)

Parameter	Units	No. Samples required/yr	Actual No. Collected	Mean (Max)	ADWG Limit (Health/Aesthetic)	No. of Non- Compliant Results	ADWG Compliance (Aesthetics / Health)	Comments
E.coli	MPN/100mL	78	3	<1 (not detected)	<1¹(H)	0	~	Sampled 17/12/24 1. Treatment plant 2. Pub 3. Hall Significant under sampling to DWQMP.
Turbidity	NTU	78	51	0.39 (0.97)	5(A) ²	0	~	Sample results captured in WTP logbook.
Free Chlorine	mg/L	156	56	0.72 (1.30)	5	0	~	Sample results captured in WTP logbook.

¹Require 98% of samples compliant for previous 12 months to meet requirements. See Table 10.

² Turbidity < 1NTU is required for effective disinfection (ADWG).

³ Sample results manually recorded in Eromanga WTP Weekly Checksheet logbook. Data results not currently uploaded into a database. Data uploads and performance trending will be feasible once swimlocalTM implemented as per action in RMIP.



Table 10 - Eromanga E.coli Annual Value Compliance (2024-2025FY)

Month	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
No. Samples Collected	0	0	0	2	0	3	0	0	0	0	0	2
No. Sample <i>E.coli</i> Detected	-	-	-	0	-	0	-	-	-	-	-	0
No. Samples collected previous 12 months	30	28	28	28	28	22	23	23	15	11	9	7
No. samples <i>E.coli</i> detected previous 12 months	0	0	0	0	0	0	0	0	0	0	0	0
% of Sample that comply	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

^{1.} The annual value for E.coli is calculated for each month and must not be detected in at least 98% of the samples reviewed previous 12 months.

^{2.} Includes all E.coli sample results both from Verification and Operational monitoring.



4.3. Verification and Operational Monitoring – Missed Samples

For both the Quilpie and Eromanga water schemes, not all planned sampling was undertaken as per the approved DWQMP. Quarterly Verification sampling was undertaken during October 2024 and June 2025 and fortnightly Operational monitoring was undertaken during December 2024 for *E.coli*.

Thus, the sampling frequency was non-compliant, which was also highlighted in the regular audit (Audit Report, June 2025). Inconsistent sampling was mainly due to resource challenges, such as staff retention and availability, noting QSC remoteness. Additionally, the impact of flood events including the March 2025 Western Queensland Surface Trough and Associated Rainfall and Flooding, had significantly impacted the region including Quilpie Shire and requested Council resources were diverted to support community response and recovery efforts.

Council is committed to address sampling consistency, and this will be managed via Council's drinking water Risk Management Improvement Plan (RMIP).



5. INCIDENTS REPORTED TO THE REGULATOR

There were no events or incidents reported to the Regulator during the reporting period.

6. CUSTOMER COMPLAINTS

Monitoring of drinking water customer complaints can provide valuable information on potential problems that may not have been identified by performance monitoring of the water supply system. Consumer satisfaction with drinking water quality is largely based on a judgment that the aesthetic quality of tap water is 'good', which usually means that it is colourless, free from suspended solids and has no unpleasant taste or odour.

There were no water quality-related customer complaints reported to Council during the reporting period.

7. DWQMP REVIEW OUTCOMES

No regulatory review of QSC's DWQMP was required during the reporting period, with the last one completed February 2022.

The next formal review is scheduled to be completed in December 2025 during the 2025 – 2026 FY.

8. DWQMP AUDIT FINDINGS

A regular audit of a registered water supplier with an approved DWQMP, is a requirement of the *Water Supply* (Safety and Reliability) Act 2008, with the audit report to be submitted to the Regulator by the due date stated within the Conditions of the approved DWQMP.

Viridis Consultants Pty Ltd (Viridis), a certified Exemplar Global auditor for Drinking Water Quality Management systems, conducted the regular audit of QSC's approved DWQMP (October 2022) from the 21st to 22nd May 2025. The Auditor submitted the Audit report to the Regulator by the 1^{st of} July 2025.

The purpose of the audit was to:

- verify the accuracy of monitoring and performance data given to the regulator under the plan;
- assess compliance with the Plan and its Conditions; and
- assess the **relevance** of the Plan to the drinking water service.

The audit objectives were completed successfully, though a low level of compliance was noted. There was one major and six minor non-compliances (NC) identified, resulting in 12 recommendations (RECs) and five opportunities for improvements (OFIs).

The auditor's findings are summarised below with the compliance summary captured in Table 11 and recommendations captured in Table 12, to address major and minor non-conformances. Opportunities for Improvement (OFI) were not included in this report however further details can be found in the Auditor's report and will form part of the RMIP.



Table 11 – DWQMP Audit Compliance Summary

Compliance Code	Number of Findings	Definitions
Conformance	8	Indicates compliance of audit findings with audit criteria.
Minor Non-Conformance	6	Does not comply, however, deficiency does not compromise the delivery of products or outcomes and does not compromise the ability to achieve defined objectives.
Major Non-Conformance	1	Does not comply. Deficiency compromises the delivery of products or outcomes, and the ability to achieve defined objectives.
No requirements	1	There was no requirement to meet this criterion within the audit period.

In summary:

- The operational and verification monitoring programs (in relation to *E. coli*) were found to be inconsistently executed, with several required *E. coli* samples missed;
- Inadequate record keeping and lack of a centralised data management system, hindered the ability to verify Annual Reporting accuracy and monitoring program effectiveness;
- Operational procedures for preventive measures, sampling, and quality assurance are either missing or informally implemented without proper documentation or staff training; and
- The Risk Management Improvement Plan (RMIP), while present in the Annual Report, is not actively
 maintained, resulting in actions being closed out without adequate completion or supporting
 evidence.

Despite gaps noted, the operators demonstrated strong operational knowledge of the water supply systems, particularly at Eromanga, with adequate operation of the Water Treatment Plant (WTP) and its processes. In addition, upper-level management demonstrated a positive attitude towards continual improvement.

It is good to note that there has been investment in *swimlocal*TM and full commissioning is planned during the 2025/26FY. This will greatly improve data management and address a few of the audit findings.

Addressing the identified gaps and implementing the recommended actions will improve the effectiveness and resilience of Council's drinking water quality system and help achieve improved compliance with the DWQMP regulatory requirements in the future.

Council plans to workshop recommendations with actions to be managed via the RMIP during 2025 - 2026FY.

Regular audits are generally required every 4 years thus, the next regular audit is due in 2029.



Table 12 - DWQMP Audit Finding Recommendations

Item	REC No.	Recommendation / OFI
Monitoring Data	REC 1	Establish a centralised location for saving water quality data, including in-house testing, operational monitoring and laboratory testing. Ensure a manager (or equivalent) reviews the implementation and results. [There has been investment in swimlocal TM and full commissioning is planned in the next few months].
Annual Report Accuracy	REC 2	Establish a process to ensure the accuracy of the information in the Annual Report, including the accuracy of data (for example by improving record keeping). When approving the Drinking water Service Annual Reports, formally DWQMP Annual Report, ensure all information is accurate and reflects the current circumstances (for example the Risk Management Improvement Plan (RMIP)).
Chlorine	REC 3	Review the suitability of the chlorine chemical used at Eromanga to ensure it is suitable for use in drinking water.
Mains Hygiene	REC 4	Determine the preventive measures required for mains hygiene and ensure all staff have adequate tools and materials to implement the actions.
Preventative Measures	REC 5	Establish inspection processes and timeframes for borehead and reservoir integrity (e.g. quarterly) and all other preventive measures, to ensure the preventive measures in the DWQMP are implemented effectively, and there are records available to confirm that they are implemented.
Sampling and In-House Testing	REC 6	A procedure for water quality sampling and in-house testing needs to be developed. The procedure must include the process for taking samples, sending samples to the laboratory and the procedure for in-house testing. The procedure should also include Quality Assurance/Quality Control (QA/QC) procedures recommended by IDEXX to ensure the in-house testing results are reliable. All staff should be trained in the implementation of the procedures.
Procedures	REC 7	Develop the required operational procedures for the implementation of the preventive measures and ensure water hygiene and water quality considerations are included. Record keeping processes must also be included. Procedures should include at a minimum water quality sampling, borehead and reservoir inspection. All staff should be trained in the implementation of the procedures.



ltem	REC No.	Recommendation / OFI
Event – Missed Samples	REC 8	Ensure that failure to take samples is notified to the Regulator as an event. Consider adding failure to take a verification sample to the DWQMP incident management process as a notifiable incident (event) to ensure that when samples are missed, the Regulator is notified in accordance with the Decision Notice.
Training	REC 9	Deliver training to all staff responsible for implementing the monitoring program in the sampling and in-house lab procedures (once developed).
Monitoring	REC 10	As a high priority, re-commence the operational and verification sampling program, including the fortnightly in-house <i>E. coli</i> testing and quarterly laboratory analysis. Consider preparing and establishing a sampling schedule and communicating the responsibility for sampling clearly to the relevant team members. Consider displaying the schedule in the office and check in each week/fortnight. with the sampler to confirm that the program is understood and being implemented.
Improvement Plan	REC 11	Ensure the RMIP is implemented as required, and it is kept up to date. Consider developing the RMIP as an editable spreadsheet (or similar), which can be regularly reviewed and updated (for example monthly/quarterly) to ensure all actions are captured and are being progressed.
Record Keeping	REC 12	Investigate and establish a central location for recording DWQMP records and documentation. Consider a suitable naming convention so that relevant documentation can be searched for and retrieved when required. [Council has planned the use of swimlocal TM in the next few months and improved use of InfoExpert].



9. CUSTOMER SERVICE STANDARD

The Quilpie Shire Council (QSC) Customer Service Standard (CSS) for water and sewerage scheme is published on Council's website. During the process of writing this report, the current version was last reviewed and adopted in 2020.

Under the *Water Supply (Safety and Reliability) Act 2008* (Qld), drinking water service providers are required to review their CSS at least every five years. Council's next scheduled review falls within the 2025–2026 financial year.

As part of this review process, Council released a draft 2025 CSS for public consultation from 3 to 28 November 2025. Two email submissions were received at the end of the consultation period, which helped refined the draft CSS.

The final 2025 CSS was subsequently tabled at the Special Council Meeting on 5 December 2025, where it was unanimously adopted with some amendments.

The adopted 2025 CSS has now replaced the 2020 version and is available on Council's website: https://quilpie.qld.gov.au/quilpie-services/water-supply/.



10. GLOSSARY

Table 13 - Glossary

Term	Definition
ADWG	Australian Drinking Water Guidelines (2011).
Annual Report	Drinking Water Service Annual Report, formally known as DWQMP Annual Report
CFU/mL	Colony forming units per millilitres
CFU/100mL	Colony forming units per 100 millilitres
CSS	Customer Service Standard
DLGWV	Department of Local Government, Water and Volunteers
DWQMP	Drinking Water Quality Management Plan, also known as the Plan
E. coli	Escherichia coli, a bacterium which is considered to indicate the presence of faecal contamination and therefore potential health risk.
FY	Financial Year
IDEXX	IDEXX Laboratory Inc. Manufacturer water testing equipment.
Incident	Means a non-compliance with water quality criteria (e.g., exceeding an ADWG health guideline value).
mg/L	Milligrams per litre
MPN	Most Probably Number
μS/cm	Microsiemens per centimetre
NATA	National Association of Testing Authorities
NA	Not Applicable
NC	Non-Conformance
ND	Not Detected
NTU	Nephelometric Turbidity Units
OFI	Opportunity For Improvement
QLD	Queensland
OMP	Operational Monitoring Program
QSC/Council	Quilpie Shire Council
REC	Recommendation
SPID	Service Provider Identification number
The Act	Water Supply (Safety and Reliability) Act 2008
VMP	Verification Monitoring Program
WTP	Water Treatment Plant



DOCUMENT HISTORY AND TRACKING

Document History

Version	Section/s Modified	Brief Description of Amendment	Author	Approver	Issue Date
0.1	Initial draft	Draft for internal review	Natasha Georgius	Tasleem Hasan	03/11/25
0.2	Minor updates	Draft for Client review	Natasha Georgius	Natasha Georgius	03/11/25
0.3	Minor updates	Client review comments	Natasha Georgius	Natasha Georgius	27/11/25
1.0	Draft Final	Draft Final Document for Client Review	Natasha Georgius	Eng Lim	28/11/25
1.1	Final	Document Finalised	Natasha Georgius	Eng Lim	17/12/25

Document Tracking

Document Name	Quilpie Shire Council - Drinking Water Service Annual Report 2024-25
Prepared By	Natasha Georgius (Viridis)
Reviewed by	Natasha Georgius (Viridis)
Approved by	Eng Lim (Quilpie Shire Council)
Date Approved	17/12/2025
Status	Final
Document Number	REC-25-186
Version Number	1.1
Review Date	28/11/2025

Viridis Consultants Pty Ltd PO Box 131 Bulimba Qld 4171 Australia

1300 799 310

www.viridis.net.au ABN: 49 129 185 271

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