



Torres Strait Island
REGIONAL COUNCIL

Engineering Services



DRINKING WATER QUALITY MANAGEMENT PLAN

ANNUAL REPORT 2025

Torres Strait Island Regional Council Service Provider SP500

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1 Introduction

This is the Drinking Water Quality Management Plan (DWQMP) Annual Report for Torres Strait Island Regional Council (TSIRC) for the year ended 30 June 2025.

TSIRC is a registered service provider, identification (SPID) number 500, serving 4,083 people across 15 communities on 14 islands in the Torres Strait. Implementation of the approved DWQMP ensures safe drinking water to protect public health. An overview of the water services provided by TSIRC are listed below:

Table 1 Water Services Overview

Description	Metric
Population Served	4,083 people
No. of Raw Water Storage Facilities	12 lagoons
No. of Treated Water Storage Facilities	19 Reservoirs
Length of Delivery Mains	105km

This report summarises compliance with the approved plan over the financial year and includes:

- Activities undertaken during the year in operating the drinking water schemes
- Drinking water quality results for the year
- Summary of events that affected water quality during the year
- DWQMP review findings

This report is submitted to the Queensland Water Supply Regulator (Department of Regional Development, Manufacturing and Water - DRDMW) and is made available to the public through our website or for inspection upon request at any TSIRC office.



2 Summary of Schemes Operated

The table below summarises the drinking water schemes operated by TSIRC.

Table 2 Summary of Drinking Water Schemes Operated

Scheme Name	Population	Connections	Raw Water Source						Pre-Treatment Process							Primary Treatment Process			
			Well	Bore	Weir	Desalination	Lagoon (Rainfall)	Imported	Clarifier	Media Filtration	RO Desalination	Coagulation (Alum)	pH adjustment	Ultra-Filtration by TSC	Settling Tank	Ultra Filtration	Media Filtration	Bag Filtration	Chlorine Disinfection
01 - Boigu	199	82				3	1												
02 - Dauan	131	58	4				1												
03 - Saibai	340	104					1												
04 - Mabuiag	253	60			1		1												
05 - Badu	704	247	3																
06 - Kubin	151	84	4		1		1												
07 - St Pauls	242	118	3		1														
08 - Hammond	253	100	1					1											
09 - lama	275	82				3													
10 - Warraber	287	81				1	1												
11 - Poruma	164	77				2	1												
12 - Masig	283	106				2	1												
13 - Ugar	69	34		2		1	1												
14 - Erub	326	106	1				1												
15 - Mer	406	111				3	1												

3 Implementation of Drinking Water Quality Management Plan

Following a regular internal review of the DWQMP in August 2025, an application to amend the DWQMP was submitted. These amendments aimed to refine the 2024 DWQMP for improved usability by field operators and to incorporate recommendations from the 2022 DWQMP audit findings and the Water Supply Regulator's May 2024 DWQMP approval conditions. The current version of the DWQMP was approved, with conditions, by the WSR on 30 May 2024. Hard copies have been distributed to each community and are also available online for engineering staff and on request.

3.1 Risk Management Improvement Plan

TSIRC's DWQMP Appendix K includes a Risk Management Improvement Plan (RMIP) which captures actions for improving the management of risks identified within the DWQMP. A copy of the RMIP as of 30 August 2025 is included in **Appendix A**.

3.2 Water Operator Training

TSIRC did not put any of its Water Officers through Cert II or Cert III training between July 2024 - June 2025.

In late 2021, TSIRC conducted a water symposium on Poruma where training was provided to the water operations team in conjunction with the Tropical Public Health Service. This symposium covered topics such as leak detection, water chemistry, computer skills, water test equipment use and calibration and desalination.

In May 2022, TSIRC in conjunction with representatives from the Tropical Public Health Service and the Water Industry Operators Association of Australia commenced an operator skills mapping process to create an online platform to provide targeted and tailored Cert III training to key staff across the organisation. While progress has been made, this project has been reprioritised to be completed in 2026.

In June 2022, six water officers attended the Qld Health Water Symposium on Thursday Island, which included a training seminar and peer presentations.

In June 2025, six Water Officers attended a water symposium held in Weipa. This included a training seminar and peer presentations. TSIRC also intends to work with the Queensland Health Tropical Public Health Unit to facilitate training for Water Operators at critical locations through the Safe & Healthy Drinking Water Program in 2026.

As highlighted in Sections 4 and 5 of this report, insufficient operator training and support have contributed to drinking water incidents in the reporting period. Addressing this has been a focus so far in 2025 and will continue to be a focus going forward into 2026.

3.3 Projects to Improve Water Quality

In addition to items in the RMIP, the following capital projects were completed in 2024-25, demonstrating TSIRC's commitment to improving water quality:

Table 3 Water quality improvement projects

Division	Project	Status
05 - Badu	Installation of dedicated reservoir outlet main to ensure appropriate chlorine levels in reservoir and reticulation network.	Works completed April 2025

4 Operational and Verification Monitoring

TSIRC's DWQMP Appendix B - Water Quality Management describes the operational and verification monitoring parameters which are applicable to the various sample points across each water scheme:

- Daily testing: free chlorine, turbidity, conductivity and pH
- Monthly testing: E. coli
- 6 Monthly testing: metals, nutrients, anions and physical properties

The results from operational and verification monitoring sampling are presented in **Appendix B** and **Appendix C** respectively. Compliance with the E. coli 98% annual value is in **Appendix D**.

4.1 Operational Monitoring

A review of the data in **Appendix B** has highlighted that instances of results exceeding operational and reporting limits are being overlooked. Furthermore, many daily operational samples were missed – this issue is more significant depending on the community. TSIRC has implemented alarms in SWIM to alert the W&WW team about breaches, enabling prompt investigations and reporting to regulators.

A lack of staff resourcing has contributed to things being missed, including the new SWIM alerts. Ongoing operator training is needed for understanding limits and proper sampling. Improved review of operational data and enhanced operator support are also identified areas for improvement.

4.2 Verification Monitoring

Review of the verification Monitoring Data highlighted three areas where treated drinking water was outside ADWG values:

- E. coli (refer Section 4.3 below)
- pH
- Hardness

All the Total Hardness results (measured as mg CaCO₃ / L) were low (< 60 mg/L), indicating that the water in these communities is very soft. Excessively soft water can be corrosive, a common issue when reverse osmosis (RO) is used for water treatment. This is the case for many schemes experiencing soft water, Mabuiag had an emergency RO operating onsite at

the time the low hardness sample was taken. The following sites had hardness levels test below the aesthetic guideline level of 60mg/L:

- Boigu
- Dauan
- Saibai
- Mabuiag
- Warraber
- Poruma
- Masig
- Ugar
- Erub
- Mer

Badu, Kubin and St Pauls also had results indicating soft water, however they do not use reverse osmosis. TSIRC will be investigating how to restore hardness to prevent corrosion, and the cause of softness at these communities. Hammond also had a low hardness result. This water is imported from another water service provider.

There was one high iron result (Mabuiag). Warraber had one high Chloride, one high sodium, and one high Total Dissolved Solids result.

Chlorate testing is now being implemented at each water scheme bi-annually. There were several occasions where chlorate levels in the reservoir water exceeded the regulator's advised limit of 0.8mg/L. This is attributable to the degradation of the Sodium Hypochlorite solution used for disinfection during shipment and storage. This poses a continued challenge for TSIRC which is difficult to surpass due to geological and climatic constraints.

Figure 1 shows there was one missed verification samples during the reporting period at Dauan. Dauan is a particularly difficult community to get samples to Cairns within 24 hours as they have no airstrip. There has been an improvement from last reporting period, with all schemes having at least one of two samples completed and some communities managing to get a 3rd sample completed (the 3rd in some circumstances may have been taken for quality verification in response to an incident or event. Logistical problems such as samples missing their connecting flights makes the process of getting water samples to Cairns within 24 hours even more challenging. TSIRC is taking steps to address this by reviewing and enhancing sampling logistics procedures, including better rescheduling of missed samples.

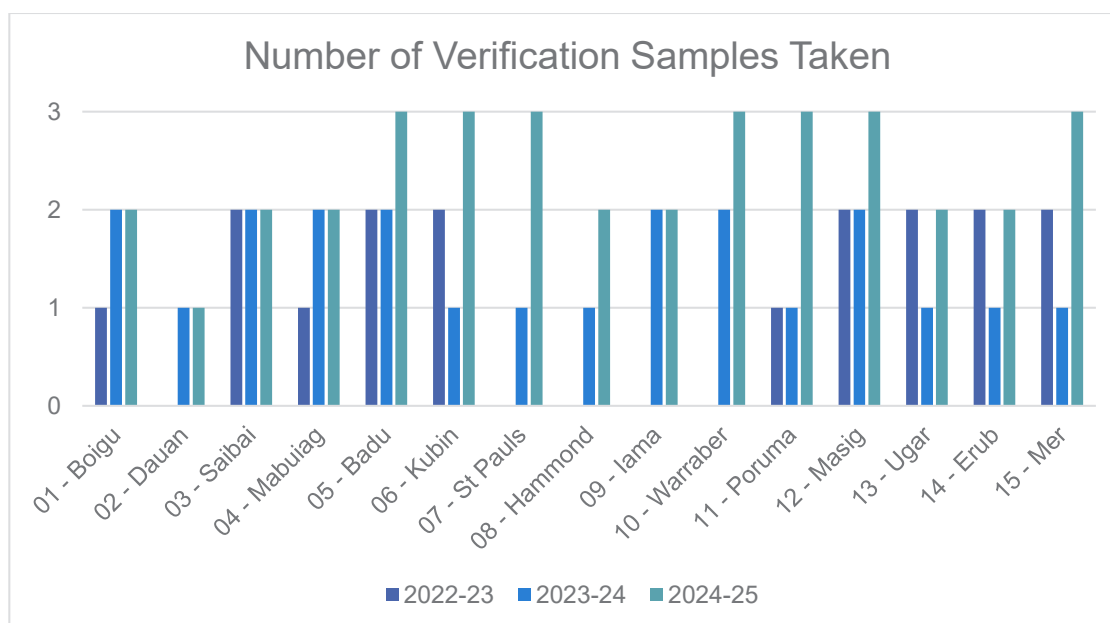


Figure 1 Number of Verification Samples Taken

4.3 E. coli Monitoring

There were two failed E. coli samples from operational and verification monitoring during the reporting period, one at Poruma in September 2024 and one at Erub in January 2025.

The E.coli failure at Poruma was attributed to an incorrect sample tap at the failed site. It was recorded under incident DWI-500-24-11237 and a boil water alert was imposed. After follow-up testing confirmed negative for E.coli, the boil water alert was lifted.

The E. coli failure at Erub was detected on the 23rd January and was found to be caused by an incorrectly placed community sample point. The sample was being taken downstream of a private water tank – the tank was bypassed to resolve the issue.

5 Incidents and Complaints

All incidents and complaints are managed in accordance with TSIRC's DWQMP Appendix G – Incidents and Complaints Management Plan. All known incidents and for this reporting period are summarised in Appendix E.

There were fewer complaints recorded in 2024-25, being 3. These were all resolved in a timely manner. Like prior years, the drinking water incidents in the reporting period revealed:

- Issues with chlorine dosing system hardware, an ongoing problem being addressed across all communities.
- Aged chlorine affects effectiveness; water operators received guidance on proper handling, storage, and rotation. This was further highlighted with the introduction of chlorate testing. This increased the number of recorded incidents for the financial year.
- Need for improvement in operator training and support.

Missed E. coli verification sampling is now also being included in the incident register as a non-reportable incident. Changes in water restrictions are also now reportable, which was not reported in previous years. This increased the number of incidents recorded in 2024-25.

5.1 Alleged Illness

No alleged illness complaints were recorded in 2024-25.

5.2 Colour Complaints

Discoloured water can predominantly be attributed to emergency works being conducted on the water mains in the area. A change in flow direction can cause sediment to be disturbed in the pipe and push this into legs of water meters at resident's properties. While Water and Wastewater team endeavours to plan works were possible and deliver letters to residents explaining works, duration of time without water and potential effects such as dirty/cloudy water after the water is returned to service, emergencies still occur that require urgent attention and cannot be planned.

Water and Wastewater staff advise residents to run external taps to flush any dirty water trapped in their connection and if the water is still discoloured, Water and Wastewater staff return to the area and flush the delivery mains again.

5.3 Taste and Odour Complaints

The taste and odour complaints received are often related to chlorine in the network. Individual customers have very different tolerance levels and while as low as possible, this can be detected by customers with very sensitive taste and smell.

Chlorine can also react with organics in the pipe network, be affected by periods of low flow and temperature in the pipe network.

Water and Wastewater staff investigate all chlorine complaints and if recent results are not available for that area from daily testing, officers will attend the location and take a chlorine reading using a handheld chlorine meter.

No Taste/odour complaints were received in 2024-25.

6 DWQMP Audit Findings

The next external DWQMP audit is due in the year ended 30 June 2027.



7 DWQMP Internal Review

An internal review of the DWQMP was completed in July 2025. Based on the review findings, an application to amend the DWQMP was submitted to the regulator in August 2025. A summary of the changes included in the amendment application is provided in Appendix F.

Appendix A – Risk Management Improvement Plan (RMIP)

ID	Description	TSIRC Priority	Added Date	Status	Expected Completion Date	Availability of funding/ resources/ estimated cost	Comments	Scheme(s) Applicable
WS-01	Automated water parameter logging and/or business day testing of water parameters by water officer	Low	Sep-21	Commenced	5+ years	Unknown	Some WTP sites have turbidity analysers. Turbidity analysers readings are unreliable, maintenance required.	All
WS-02	Install ultra filtration or UV for water scheme	Medium	Sep-21	Commenced	5+ years	Est. \$1M per UF plant (note: no building works)	UF plants at Erub and Badu. To mitigate risk of Crypto/protozoa.	1 2 3 4 6 7 8 9 10 11 12 13 15
WS-03	Provide hardstand or automated fire suppression system	Low	Sep-21	Not started	5+ years	Unknown	-	All
WS-04	Install escalated alarming system	High	Sep-21	Commenced	Dec-25	Funding available	Linked with WS-11. Systems in place, need to roll out SCADA training first, planned for first half of 2026	All
WS-05	Install automated backwash system	High	Sep-21	Commenced	5+ years	Est. \$500k per WTP (note: no building works)	Automated backwash systems at Dauan, St Pauls, Kubin, Mabuiaug and Hammond.	1 3 4 9 10 11 12 13 14 15
WS-06	Provide E.coli testing station on island	Medium	Sep-21	Commenced	5+ years	Est. \$20k per testing station for the lab equipment only (note: no building works). Approx. \$150k for building renovations, depending on site.	E.coli testing in-house labs on Hammond, Badu, lama, Dauan, Mabuiaug, Ugar and Erub (Aug 2025)	1 3 6 7 10 11 12 15
WS-08	Ensure all pipework is buried or SS316	Low	Sep-21	Not started	5+ years	Unknown	-	All

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ID	Description	TSIRC Priority	Added Date	Status	Expected Completion Date	Availability of funding/ resources/ estimated cost	Comments	Scheme(s) Applicable
WS-09	Provide permanent desalination unit on island	Medium	Sep-21	Not started	5+ years	Est. \$1M per desalination unit	Desal lay down area and access to mains power required on each island. (Kubin, Mabuiag, St Pauls, Dauan, Darnley)	All
WS-10	Ensure spare booster pump set is available on island for emergency installation	Medium	Sep-21	N/A	5+ years	Unknown	Dauan doesn't require booster pumps. Reservoir gravity feeds the community.	2
WS-12	Cyber security upgrade to radio telemetry networks (DNP3)	High	Sep-21	Not started	5+ years	Est. \$2.5M	In MIP 7 funding list	All
WS-13	Upgrade supply and return line to Badu reservoir (remove push / pull water system)	Very High	Sep-21	Completed	Apr-25	Funding available	Completed, BWA lifted June 2025	5
WS-14	Upgrade Erub reservoir to increase useable lifespan	Very High	Sep-21	Completed	2024	Est. \$1M	Reservoir has been refurbished and is back online	14
WS-15	Develop procedurised stock list and ordering methodology	Medium	Sep-21	Completed	Jun-24	Internal cost	Main issue is chlorine, system currently in place.	All
WS-16	Develop procedurised preventative maintenance plan	Medium	Sep-21	Commenced	Jun-26	Internal cost	Ongoing. Staffing issues and responding to plant failures make this difficult to do.	All
WS-17	Ensure water supply scheme reservoirs are adequately sized	Low	Sep-21	Not started	5+ years	Unknown	Murray breaker tank needs to be upsized, may need to be done in conjunction with a WTP upgrade (include media filters). Funding is required for additional capacity.	All
WS-18	Develop ownership agreement with TSC for 08 - Hammond Water Supply Scheme and	Medium	Sep-21	Commenced	Dec-26	Internal cost	Draft MOU is in review	Hammond

ID	Description	TSIRC Priority	Added Date	Status	Expected Completion Date	Availability of funding/ resources/ estimated cost	Comments	Scheme(s) Applicable
	establish communication protocol for TSC							
WS-19	Install suitable chemical storage shed	Very High	Jul-23	Not started	5+ years	Unknown	Numerous sites do not have adequate undercover chlorine storage available. New shed at Mer installed May-24 Kubin and St Pauls needs a Mer style hypo storage shed	Verification Needed for relevant Schemes
WS-20	Raise Boigu seawall	Low	Jul-23	Completed	5+ years	Unknown		1
WS-21	Raise Warraber seawall	Low	Jul-23	Commenced	5+ years	Unknown	Refer to sea water inundation risks and actions under TSIRC's CHAS (Coastal Hazard Adaptation Strategy)	10
WS-22	Extend the water reticulation network at Kubin to include airport	Low	Jul-23	Not started	5+ years	Unknown	-	6
WS-23	Create list of vulnerable customers	Medium	Jul-23	Commenced	Jun-27	Internal cost		All
WS-24	Complete collection of sample point GPS locations. Merge GIS and TSIRC Mapping so maps of each island include infrastructure (buildings and mains) and accurate sample point locations.	Medium	Jul-23	Commenced	Jun-27	Internal cost		All
WS-25	Update schematics in A.3	Low	Jul-23	Completed	Jun-25	Internal cost	Historical working versions have been lost so these need to be recreated and updated. Water Officers still find these	All

ID	Description	TSIRC Priority	Added Date	Status	Expected Completion Date	Availability of funding/ resources/ estimated cost	Comments	Scheme(s) Applicable
							a useful resource for reference.	
WS-26	Develop procedurised reactive and corrective maintenance plan	Medium	Dec-23	Commenced	Jun-26	Internal cost	Ongoing. Staffing issues and responding to plant failures make this difficult to do.	All
WS-27	Review the CHAS Risk assessment for water assets and conduct water quality hazard assessment to identify scheme/community specific climate change risks. Broaden assessment to consider additional climate change hazards	Low	Jan-24	Not started	Jun-26	Internal Cost	Refer to background documentation and CHAS to understand climate change risks and responses for each community. Could focus on priority communities as a starting point. Desal to compensate for potential drought occurrences.	All
WS-28	Raw water samples for seawater and saline groundwater sources	Low	Jan-24	Not started	Jun-26		1 3 9 10 11 12 13 15 Informs Raw Water Catchment Categorisation, refer DWQMP 2.2.6 and Appendix A.1.2.2 as well as mitigating lagoon Pathogen/Microbial Contaminant Hazards set out in the Appendix K.4 Introduce at high risk or new sites e.g. Erub emergency desal intake and Boigu creek RO intake, Saibai RO intake.	
WS-29	Reassess the treatment barrier LRVs from manufacturer values and operating conditions.	Low	Jan-24	Not started	Jun-26		Informs Raw Water Catchment Categorisation,	All

ID	Description	TSIRC Priority	Added Date	Status	Expected Completion Date	Availability of funding/ resources/ estimated cost	Comments	Scheme(s) Applicable
							refer DWQMP 2.2.6 and Appendix A.1.2.2	
WS-30	Investigate improvements to treatment barriers to achieve target LRVs	High	Jan-24	Commenced	Aug-24		-	All
WS-31	Investigate WTP and STP site security improvements	Medium	Dec-23	Not started	Jun-26	Funding required	Fencing and locks. Ongoing maintenance required.	All
WS-32	Develop Scheme specific operational manuals for WO and TO	High		Not started	Jun-26	Internal cost /Operational budget	-	All
WS-33	Investigate temporary intake line or alternative intake options to minimise potential for water loss due to poor jetty conditions	Low	Feb-24	Not Started	Jun-28	Funding required	Boigu Jetty collapse Risk (Risk1.07) Alternate intake changed to creek. Planning commenced to permanently set up creek intake.	1
WS-34	Raise Poruma seawall (or other as per CHAS)	Low	Jul-23	Not started	5+ years	Unknown	Refer to sea water inundation risks and actions under TSIRC's CHAS (Coastal Hazard Adaptation Strategy).	11
WS-35	Raise Masig seawall (or other as per CHAS)	Low	Jul-23	Not started	5+ years	Unknown	Refer to sea water inundation risks and actions under TSIRC's CHAS (Coastal Hazard Adaptation Strategy).	12
WS-36	Add a priority field for logging water defects / issues via the on-line tool to distinguish between the urgency of each work item.	Medium	Jan-24	Completed	Jun-25	NA	Priority is currently only filled out for external electrical works.	All
WS-37	Test and confirm alarms at	High	Jan-24	Not Started	Jun-26	NA	SCADA alarms and physical	All



ID	Description	TSIRC Priority	Added Date	Status	Expected Completion Date	Availability of funding/ resources/ estimated cost	Comments	Scheme(s) Applicable
WS-38	Updating SWIM to include warning limits to match the CCP Matrix	Medium	Jan-24	Commenced	Jun-26	NA	This will need to be updated again if the CCP matrix is amended as per the IN notice.	All
WS-39	Make media filter bypass valve lockable	Low	Feb-24	Not started	Feb-29	Operational budget	Safe Drinking Water Assessment 2016 recommendation.	6
WS-40	Install inline turbidity monitoring for raw water or sample points before and after media filter.	Medium	Feb-24	Not started	Jun-26	Unknown	Safe Drinking Water Assessment 2016 recommendation this would be ideal but also, we need to better understand how to calibrate the turbidity sensors that have already been installed inline.	6 7
WS-41	Repair gate at Kubin reservoir so it can be locked.	Low	Feb-24	Completed	Feb-26	Unknown	Safe Drinking Water Assessment 2016 recommendation	6
WS-42	Install Raw Water Flow Meter	-Low	Feb-24	Not started	Jun-26	Unknown	Safe Drinking Water Assessment 2016 recommendation The treated water flow meter should give the same result as the raw water flow meter assuming no leaks within the WTP.	6 7
WS-43	Reservoir site security improvements	Medium	Feb-24	Not started	Feb-26	Unknown	Reservoirs that require fencing for security	4,5,8,9,11,12,14

ID	Description	TSIRC Priority	Added Date	Status	Expected Completion Date	Availability of funding/ resources/ estimated cost	Comments	Scheme(s) Applicable
WS-44	Develop written procedure for first flush of creeks and weirs	Low	Feb-24	Not started	Feb-26	NA	Safe Drinking Water Assessment 2016 recommendation there is no way to flush currently at the Kubin and St Pauls weirs. Separate pipework would need to be installed with downstream outlet - write procedure for withheld use of water until the turbidity reaches a certain level.	6 7
WS-45	Develop/ensure written procedures for mobile RO unit are easily available to all relevant water operators.	Medium	Feb-24	Not started	Jun-26	NA	Safe Drinking Water Assessment 2016 recommendation	6 7
WS-46	Place "Do Not Consume" signs at Kubin STP taps, as it is not on reticulation main but on rising main	High	Feb-24	Completed	Jun-24	NA		6
WS-47	Ensure Operators have access to SOPs for all process elements at the WTP.	Medium	Feb-24	Not started	Jun-28	NA	Safe Drinking Water Assessment 2016 recommendation	All
WS-48	Review and improve the procedures for arranging sampling to improve the frequency of sampling	High	Feb-24	Commenced	Dec-26	NA	Ongoing - improvements still being made.	All
WS-49	Investigate low pH levels	Low	Feb-24	Not started	Jun-26	NA	From historical data review	1,2,4,11,13

ID	Description	TSIRC Priority	Added Date	Status	Expected Completion Date	Availability of funding/ resources/ estimated cost	Comments	Scheme(s) Applicable
WS-50	Provide Cert 2, 3 or Cert 4 training to all water operators	Medium	Feb-24	Commenced	Jun-26	Unknown	Aug 2025 - Planning underway for two operators to complete Cert III	All
WS-51	Investigate softness of water (low Hardness results)	Low	Feb-24	Not started	Jun-26	NA	From historical data review	All
WS-52	Ensure SWIM indicator alerts are set up for all scheme daily testing for critical and operational limits	Medium	Feb-24	Completed	Dec-24	NA	Improve reporting of exceedances from DWQMP (Operational monitoring program)	All
WS-53	Refresher training on reporting and incidents	High	Apr-24	Completed	May-24	NA	Resulting from Mer incident, where regulator was not notified immediately	All
WS-56	Implement Chlorate Management Plan - Appendix L	High	Jun-24	Commenced	Dec-26	NA	Changes to regulation, Chlorate tested biannually, procedure developed, still work in progress. Add THMs and change to 'Disinfection By-products Management Plan'	All
WS-57	Ensure that turbidity is monitored daily at the WTP and backwashing frequency of media filters. Train on site staff so that backwashing is undertaken regularly	High	Mar-25	Commenced	Ongoing	NA		All
WS-58	Communicate to staff to replace RO membranes at 900-1000µS/cm. notify management if permeate conductivity exceeds 1200µS/cm.	High	Mar-25	Commenced	Ongoing	NA		13 9 10 11 12 13 15

WS-59	Warraber Media filters have blown out and not yet replaced - currently bag filters providing the only filtration between lagoon and reservoir.	High	Jun-25	Not Started	Jun-26	NA	Discussion point. Mer doesn't have media filtration either.	10
WS-60	Develop a procedure for the case where an operational Permanent RO is taken offline or not in use, to utilize the CIP skid with a preservative.	Low	Jun-25	Not Started	Jun-28	TBC	Refer to regulator req. TSIRC-2025-23	1, 3, 4, 9, 10, 11, 12, 13, 14, 15
WS-61	Develop a procedure for the cleaning and calibration of conductivity probe at permanent RO sites.	Low	Jun-25	Not Started	Jun-28	TBC	Refer to regulator req. TSIRC-2025-25	1, 3, 4, 9, 10, 11, 12, 13, 14, 15
WS-62	Develop a procedure relating to the Boigu raw water pump at the new intake location once creek intake is made permanent.	Medium	Jun-25	Not Started	Jun-28	TBC	Refer to regulator req. TSIRC-2025-08 Linked to WS-33	1
WS-63	Build rising main for the emergency ROs at Kubin, St Pauls and Mabuiaug	High	Jun-25	Not Started	Jun-29	MIP7 funding request	Part of MIP7 funding application	4, 6, 7
WS-64	Build chemical cleaning skids that are to accompany mobile RO units.	High	Jun-25	In Progress	Jun-28	TBC	Refer to regulator req. TSIRC-2025-18	All
WS-65	Develop a procedure for the operators to monitor the performance of the media filters, and mobile desal equipment and CIP skids for the emergency RO units, include a check sheet to record the infeed and discharge pressures, and for recording when backflushing is completed.	Low	Jun-25	In Progress	Jun-28	Internal cost	Refer to regulator req. TSIRC-2025-20, 19, 18	All
WS-66	Investigate adding permeability calculation to SCADA over the Badu/Erub UF membranes.	Low	Jun-25	Not Started	Jun-26	Internal cost	Refer to regulator req. TSIRC-2025-41	5, 14
WS-67	Additional dedicated water officers on each community	High	Jun-25	Not Started	+5 years	Unknown		
WS-68	Include PFAS testing and response in the DWQMIP, develop procedure for reacting to positive test of PFAS in treated water.	Low	Jun-25	Commenced	Jun-26	NA	to be included in the next DWQMIP review.	All

Appendix B - Water Quality – Operational Monitoring

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples Collected	No. Non-compliant Samples	Minimum	Average	Maximum	Comments
01 - Boigu	SP 1 - Church	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	339	0	0.24	0.90	1.98	
		Turbidity	<5 NTU (a) (CL)	260	340	1	0.01	0.91	5.46	Failed sample compared to other samples, other sample sites all providing compliant results. Sample point flushed immediately after failed reading until re-reading below 3NTU received.
	SP 2 - School	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	338	0	0.30	1.02	1.99	
		Turbidity	<5 NTU (a) (CL)	260	339	0	0.01	0.83	3.59	
	SP 3 - Airport	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	339	0	0.30	0.82	1.97	
		Turbidity	<5 NTU (a) (CL)	260	338	0	0.01	0.89	4.27	
	SP 4 - STP	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	338	0	0.20	0.57	1.90	
		Turbidity	<5 NTU (a) (CL)	260	337	0	0.01	0.91	4.23	
	SP 5 - Health Centre	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	336	0	0.22	1.03	1.99	
		Turbidity	<5 NTU (a) (CL)	260	335	0	0.01	0.81	3.36	
	SP 6 - Reservoir Analyser	Conductivity	<1500µS/cm (CL)	260	319	0	55.20	416.30	1086	
		Free Chlorine	0.2 - 5mg/L (h) (CL)	260	332	0	0.30	0.84	2.02	
		pH	6.5-8.5	260	322	275	6.50	6.52	7.40	Slightly low pH, a known and ongoing issue for several of TSIRC's water schemes. Refer RMIP WS-49.
		Turbidity	<5 NTU (a) (CL)	260	331	0	0.01	0.56	1.98	
		Conductivity	-	260	291	0	44.40	283.82	997.00	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples Collected	No. Non-compliant Samples	Minimum	Average	Maximum	Comments
02 - Dauan	SP 7 - Raw Water (Lagoon)	pH	-	260	295	0	6.50	6.52	7.13	
		Turbidity	-	260	302	0	0.01	0.56	1.99	
	SP 1 - N. Mooka	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	347	16	0.01	0.69	2.09	Many of the failed samples occurred during BWA in place.
		Turbidity	<5 NTU (a) (CL)	260	343	0	0.01	1.33	3.97	
	SP 2 - School	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	346	3	0.20	0.91	2.46	One-off readings (occurred in 1 or 2 of 6 sample points on the day) indicating the tap was not flushed sufficiently before the sample was taken; not reported to WSR.
		Turbidity	<5 NTU (a) (CL)	260	343	0	0.01	1.35	3.98	
	SP 3 - Council	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	345	2	0.20	0.89	2.30	One-off readings (occurred in 1 or 2 of 6 sample points on the day) indicating the tap was not flushed sufficiently before the sample was taken; not reported to WSR.
		Turbidity	<5 NTU (a) (CL)	260	343	0	0.01	1.41	3.98	
	SP 4 - S. Mooka	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	345	2	0.20	0.96	2.42	One-off readings (occurred in 1 or 2 of 6 sample points on the day) indicating the tap was not flushed sufficiently before the sample was taken; not reported to WSR.
		Turbidity	<5 NTU (a) (CL)	260	342	0	0.01	1.37	3.96	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples Collected	No. Non-compliant Samples	Minimum	Average	Maximum	Comments
03 - Saibai	SP 5 - Builders Corner	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	341	3	0.20	0.97	2.42	One-off readings (occurred in 1 or 2 of 6 sample points on the day) indicating the tap was not flushed sufficiently before the sample was taken; not reported to WSR.
		Turbidity	<5 NTU (a) (CL)	260	341	0	0.01	1.28	3.96	
	SP 6 - Reservoir Analyser	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	234	4	0.13	1.36	87.00	One-off readings (occurred in 1 or 2 of 6 sample points on the day) indicating the tap was not flushed sufficiently before the sample was taken; not reported to WSR/incorrect sampling.
		pH	6.5-8.5	260	233	97	1.68	6.16	8.5	High number of samples failed all failing low between 5-6.5.
		Turbidity	<5 NTU (a) (CL)	260	231	0	0.01	1.23	3.97	
	SP 7 - Raw Water (Lagoon)	Conductivity	-	260	208	0	3.70	266.08	2200.00	
		pH	-	260	208	0	3.61	11.96	16.00	
		Turbidity	-	260	182	28	0.00	10.58	485.00	untreated
		Free Chlorine	0.2 - 5mg/L (h) (CL)	260	187	0	0.25	1.17	2.66	
	SP 1 - Water Treatment Pit	Turbidity	<5 NTU (a) (CL)	260	186	0	0.13	0.96	3.15	
	SP 2 - Council Office	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	187	2	0.02	1.01	2.34	One-off readings (occurred in 1 or 2 of 6 sample points on the day) indicating the tap was not flushed sufficiently before the sample was taken; not reported to WSR/incorrect sampling. Flushing undertaken immediately.

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples Collected	No. Non-compliant Samples	Minimum	Average	Maximum	Comments
	SP 3 - Public Hall	Turbidity	<5 NTU (a) (CL)	260	186	0	0.11	0.94	2.63	
		Free Chlorine	0.2 - 5mg/L (h) (CL)	260	186	1	0.15	0.98	2.19	One-off readings (occurred in 1 or 2 of 6 sample points on the day) indicating the tap was not flushed sufficiently before the sample was taken; not reported to WSR/incorrect sampling. Flushing undertaken immediately.
		Turbidity	<5 NTU (a) (CL)	260	185	0	0.10	0.97	2.90	
	SP 4 - House Near Sewage Pit	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	185	7	0.02	0.71	2.34	One-off readings (occurred in 1 or 2 of 6 sample points on the day) indicating the tap was not flushed sufficiently before the sample was taken; not reported to WSR/incorrect sampling. Flushing undertaken immediately.
		Turbidity	<5 NTU (a) (CL)	260	182	0	0.14	1.03	2.86	
		Free Chlorine	0.2 - 5mg/L (h) (CL)	260	181	5	0.10	0.56	2.01	One-off readings (occurred in 1 or 2 of 6 sample points on the day) indicating the tap was not flushed sufficiently before the sample was taken; not reported to WSR/incorrect sampling. Flushing undertaken immediately.
	SP 5 - Singyal House Airport Road	Turbidity	<5 NTU (a) (CL)	260	179	0	0.17	1.18	3.25	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples Collected	No. Non-compliant Samples	Minimum	Average	Maximum	Comments
04 - Mabuiaig	SP 6 - Reservoir Analyser	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	187	2	0.00	1.19	2.67	
		pH	6.5-8.5	260	141	0	6.54	7.00	8.07	
		Turbidity	<5 NTU (a) (CL)	260	181	0	0.15	0.99	3.44	
	SP 7 - Raw Water (Pre Filter)	Conductivity	-	260	1	1	0.00	0.00	0.00	Bad reading
		pH	-	260	111	0	6.50	7.00	8.08	
		Turbidity	-	260	114	0	0.12	1.22	6.95	
	SP 1 - Airport Camp	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	84	0	0.20	0.63	1	
		Turbidity	<5 NTU (a) (CL)	260	83	0	0.16	0.81	4.47	
	SP 2 - Council Office	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	84	0	0.22	0.80	2	
		Turbidity	<5 NTU (a) (CL)	260	84	1	0.10	2.32	134.00	Failed samples on the 16.01.25 very high results – possible incorrect readings
	SP 3 - IBIS Store	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	86	0	0.21	0.90	3	
		Turbidity	<5 NTU (a) (CL)	260	85	2	0.09	2.46	141.00	1 failed on the 16.01.25 very high result – possible incorrect reading
	SP 4 - Medical Centre	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	99	0	0.27	0.87	3	
		Turbidity	<5 NTU (a) (CL)	260	98	1	0.09	1.94	122.00	1 failed on the 16.01.25 very high result – possible incorrect reading
	SP 5 - School Duplex	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	99	2	0.18	0.74	2	One-off reading (occurred in 1 sample points on the day) indicating the tap was not flushed sufficiently before the sample was taken; not reported to WSR. Flushing undertaken immediately until reading was compliant.

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples Collected	No. Non-compliant Samples	Minimum	Average	Maximum	Comments
05 - Badu	SP 6 - Chlorine Analyser	Turbidity	<5 NTU (a) (CL)	260	98	1	0.09	1.90	125.00	1 failed on the 16.01.25 very high result – possible incorrect readings
		Free Chlorine	0.2 - 5mg/L (h) (CL)	260	113	0	0.21	1.00	2	
		pH	6.5-8.5	260	113	0	6.50	6.57	6.80	
	SP 7 - Raw Water (Pre Filter)	Turbidity	<5 NTU (a) (CL)	260	113	0	0.08	0.77	4.79	
		Conductivity	-	260	108	0	0.54	57.12	69.00	
		pH	-	260	108	0	6.50	6.53	6.97	
	SP 8 - Raw Water (Well 1)	Turbidity	-	260	108	0	0.34	7.28	650.00	
		Conductivity	-	0	3	0	35.00	38.00	42.00	
		pH	-	0	3	0	6.50	6.60	6.70	
	SP 1 - School	Turbidity	-	0	3	0	2.33	2.62	2.88	
		Free Chlorine	0.2 - 5mg/L (h) (CL)	260	213	50	0.01	0.84	2	Prior to April '25, longstanding BWA was in place at Badu due to inability to maintain Free Chlorine Residual in the network.
		Turbidity	<5 NTU (a) (CL)	260	30	0	0.00	0.06	2	
05 - Badu	SP 2 - Police Station	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	216	64	0.01	0.60	2	Prior to April '25, longstanding BWA was in place at Badu due to inability to maintain Free Chlorine Residual in the network.
		Turbidity	<5 NTU (a) (CL)	260	31	0	0.00	0.07	2	
	SP 3 - Motel	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	222	42	0.03	0.82	2	Prior to April '25, longstanding BWA was in place at Badu due to inability to maintain Free Chlorine Residual in the network.



Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples Collected	No. Non-compliant Samples	Minimum	Average	Maximum	Comments
	SP 4 - Dogai	Turbidity	<5 NTU (a) (CL)	260	33	0	0.00	0.05	1	
		Free Chlorine	0.2 - 5mg/L (h) (CL)	260	198	57	0.02	0.67	2	Prior to April '25, longstanding BWA was in place at Badu due to inability to maintain Free Chlorine Residual in the network.
	SP 5 - Airport	Turbidity	<5 NTU (a) (CL)	260	32	0	0.00	0.10	4	
		Free Chlorine	0.2 - 5mg/L (h) (CL)	260	200	57	0.00	0.67	10	Prior to April '25, longstanding BWA was in place at Badu due to inability to maintain Free Chlorine Residual in the network.
	SP 6 - Reservoir Analyser	Turbidity	<5 NTU (a) (CL)	260	25	0	0.00	0.05	1	
		Free Chlorine	0.2 - 5mg/L (h) (CL)	260	168	49	0.04	0.77	24	Prior to April '25, longstanding BWA was in place at Badu due to inability to maintain Free Chlorine Residual in the network.
		pH	6.5-8.5	260	167	0	6.55	7.39	8	
	SP 8 - Raw Water (Raw Water Tank)	Turbidity	<5 NTU (a) (CL)	260	20	0	0.00	0.04	1	
		Conductivity	-	260	148	0	32.47	93.74	114.20	
		pH	-	260	150	0	6.00	7.27	8.25	
		Turbidity	-	260	128	0	0.00	0.93	6.00	
	SP 7 - Clear Water Tank	Conductivity	-	260	150	0	5.97	98.99	170.10	
		pH	-	260	147	0	6.76	7.32	7.65	
		Turbidity	-	260	12	1	0.00	0.06	6.00	Failed sample taken 16.12.24, reading of 6NTU. Existing BWA in place

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Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples Collected	No. Non-compliant Samples	Minimum	Average	Maximum	Comments
06 - Kubin	SP 10 - Well 2	pH	-	260	156	0	3.64	4.93	6.76	
	SP 11 - Well 3	pH	-	260	147	0	3.46	4.68	6.35	
	SP 1 - IBIS	Conductivity	<1500µS/cm (CL)	0	5	0	0.00	381.00	678.00	
		Free Chlorine	0.2 - 5mg/L (h) (CL)	260	173	0	0.30	1.10	3.13	
		Turbidity	<5 NTU (a) (CL)	260	172	2	0.01	1.17	71.00	High reading on the 19.03.25 and on 9.06.25. the result in March coincided with a high reading at SP 5. Flushing conducted. Other high result (71 NTU) suspected sampling error.
	SP 2 - School Sink	Conductivity	<1500µS/cm (CL)	0	4	0	0.00	312.57	589.00	
		Free Chlorine	0.2 - 5mg/L (h) (CL)	260	164	2	0.09	0.88	3.27	High reading on the 27.02.25 and on the 09.06.25. the result in Feb coincided with a high reading at SP6. BWA in place, Flushing conducted.
		Turbidity	<5 NTU (a) (CL)	260	164	0	0.01	0.62	3.70	
	SP 3 - Airport	Conductivity	<1500µS/cm (CL)	0	4	0	0.00	328.86	613.00	
		Free Chlorine	0.2 - 5mg/L (h) (CL)	260	169	0	0.22	0.88	3.00	
06 - Kubin	SP 4 - Tomsanas	Turbidity	<5 NTU (a) (CL)	260	169	0	0.01	0.63	3.85	
		Conductivity	<1500µS/cm (CL)	0	5	0	0.00	353.38	621.00	
		Free Chlorine	0.2 - 5mg/L (h) (CL)	260	171	0	0.31	1.03	3.29	
		Turbidity	<5 NTU (a) (CL)	260	174	0	0.01	0.71	3.58	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples Collected	No. Non-compliant Samples	Minimum	Average	Maximum	Comments
	SP 5 - Addie Basum	Conductivity	<1500µS/cm (CL)	0	5	0	0.00	316.00	645.00	
		Free Chlorine	0.2 - 5mg/L (h) (CL)	260	169	2	0.01	0.85	2.80	High reading on the 16.09.24 and 19.03.25. the result in Mar coincided with a high network turbidity readings. BWA in place, Flushing conducted.
		Turbidity	<5 NTU (a) (CL)	260	172	1	0.01	0.71	5.78	High reading on the 19.03.25. the result in March coincided with a high reading at SP 1. Flushing conducted.
	SP 6 - Reservoir Analyser	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	149	1	0.01	1.21	4.60	High reading on the 27.02.25 the result in Feb coincided with a high reading at SP1. BWA in place, Flushing conducted.
		pH	6.5-8.5	260	140	1	0.00	6.38	6.81	False zero readings skewed average. Only 1 legitimate reading outside the range was 6.4 on 05.08.24.
		Turbidity	<5 NTU (a) (CL)	260	146	0	0.01	0.79	3.50	
		Conductivity	-	260	0	0	0.00	0.00	0.00	
	SP 7 - Raw Water (Pre Filter)	pH	-	260	111	3	0.00	6.28	6.90	All non-compliant readings between 6-6.5
		Turbidity	-	260	116	0	0.01	1.21	3.85	
		Free Chlorine	0.2 - 5mg/L (h) (CL)	260	124	0	0.20	0.92	1.71	
07 - St Pauls	SP 1 - S. Rosen	Turbidity	<5 NTU (a) (CL)	260	124	0	0.16	1.25	3.35	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples Collected	No. Non-compliant Samples	Minimum	Average	Maximum	Comments
08 - Hammond	SP 2 - Gospel Church	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	123	0	0.31	1.00	1.60	
		Turbidity	<5 NTU (a) (CL)	260	123	0	0.22	1.24	3.47	
	SP 3 - H. Mene	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	121	0	0.30	0.90	1.57	
		Turbidity	<5 NTU (a) (CL)	260	121	0	0.20	1.28	3.86	
	SP 4 - School	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	121	0	0.37	0.94	1.81	
		Turbidity	<5 NTU (a) (CL)	260	121	0	0.35	1.25	3.43	
	SP 5 - Community Police	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	123	0	0.43	0.88	1.70	
		Turbidity	<5 NTU (a) (CL)	260	123	0	0.16	1.27	3.69	
	SP 6 - Reservoir Analyser	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	104	0	0.20	1.14	2.07	
		pH	6.5-8.5	260	5	1	6.40	6.50	6.60	Low reading of 6.4
		Turbidity	<5 NTU (a) (CL)	260	104	0	0.18	1.27	3.87	
	SP 7 - Raw Water (Lagoon)	Turbidity	-	260	31	0	0.16	0.66	3.86	
	SP 1 - Compound	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	244	0	0.29	0.90	2.41	
		Turbidity	<5 NTU (a) (CL)	260	249	0	0.01	0.83	4.44	
	SP 2 - Subdivision	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	244	1	0.20	0.78	1.95	
		Turbidity	<5 NTU (a) (CL)	260	249	0	0.01	0.92	2.57	
	SP 3 - Bindjudas	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	245	0	0.26	0.66	1.96	
		Turbidity	<5 NTU (a) (CL)	260	250	0	0.01	0.80	2.24	
	SP 4 - Village	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	245	1	0.20	0.87	2.09	
		Turbidity	<5 NTU (a) (CL)	260	250	0	0.01	0.94	2.39	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples Collected	No. Non-compliant Samples	Minimum	Average	Maximum	Comments
09 - Iama	SP 5 - Becklys	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	246	2	0.13	0.59	1.66	Flushed main after failed test, dead end line requires regular flushing.
	SP 6 - Reservoir Analyser	Turbidity	<5 NTU (a) (CL)	260	251	0	0.01	0.86	2.98	
		Free Chlorine	0.2 - 5mg/L (h) (CL)	260	246	1	0.19	0.99	2.00	Tested 01.08.2024 and failed, all other sample points passed.
		pH	6.5-8.5	260	207	1	6.47	7.08	8.07	Failed reading 6.47 on the 28.04.25
	SP 7 - Raw Water (Pre Filter)	Turbidity	<5 NTU (a) (CL)	260	251	0	0.08	0.76	1.97	
		Conductivity	-	260	251	0	0.53	63.24	95.50	
		Free Chlorine	-	0	245	0	0.19	0.93	2.00	
		pH	-	260	251	0	0.67	7.27	7.93	
		Turbidity	-	260	250	0	0.04	1.33	57.20	
	SP 1 - Medical Centre	Free Chlorine	-	260	353	0	0.25	1.07	5.00	
	SP 2 - School	Turbidity	-	260	352	0	0.01	0.42	1.99	
		Free Chlorine	-	260	353	0	0.01	1.05	5.00	
		Turbidity	-	260	352	1	0.00	0.52	2.22	Reading 0 – possible misread
	SP 3 - David Roley	Free Chlorine	-	260	352	1	0.00	1.08	5.00	One-off reading occurred at SP3, other sample points passed. Line immediately flushed after low reading.
	SP 4 - Council	Turbidity	-	260	349	0	0.01	0.55	2.08	
		Free Chlorine	-	260	353	0	0.01	0.91	5.00	
		Turbidity	-	260	351	0	0.01	0.52	1.96	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples Collected	No. Non-compliant Samples	Minimum	Average	Maximum	Comments
10 - Warraber	SP 5 - Ben	Free Chlorine	-	260	350	0	0.17	1.02	5.00	
		Turbidity	-	260	349	0	0.01	0.62	4.77	
	SP 6 - Reservoir Analyser	Conductivity	-	260	353	0	536.00	793.83	1152.00	
		Free Chlorine	-	260	354	0	0.17	1.10	5.00	
		pH	-	260	355	0	0.31	6.82	9.70	
	SP 7 - Raw Water (Permeate Tank)	Turbidity	-	260	353	0	0.01	0.48	5.29	
		Conductivity	-	260	356	0	467.00	746.14	1206.00	
		pH	-	260	355	0	5.00	13.85	902.00	
		Turbidity	-	260	353	0	0.01	0.38	7.21	
	SP 1 - Reservoir	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	137	0	0.67	1.29	2.40	
		Turbidity	<5 NTU (a) (CL)	260	133	1	0.00	0.77	1.76	Reading 0 – possible misread
	SP 2 - Jensen P	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	133	0	0.54	1.24	2.24	
		Turbidity	<5 NTU (a) (CL)	260	129	1	0.00	0.73	0.99	Reading 0 – possible misread
	SP 3 - William P	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	134	0	0.49	1.16	2.17	
		Turbidity	<5 NTU (a) (CL)	260	130	1	0.00	0.73	1.06	Reading 0 – possible misread
	SP 4 - School	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	133	0	0.51	1.11	2.07	
		Turbidity	<5 NTU (a) (CL)	260	130	0	0.22	0.72	1.09	
	SP 5 - Wharf	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	121	0	0.30	0.86	1.87	
		Turbidity	<5 NTU (a) (CL)	260	120	0	0.22	0.73	1.05	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples Collected	No. Non-compliant Samples	Minimum	Average	Maximum	Comments
11 - Poruma	SP 6 - Reservoir Analyser	Conductivity	<1500µS/cm (CL)	260	114	1	0.00	346.54	749	
		Free Chlorine	0.2 - 5mg/L (h) (CL)	260	116	0	0.58	1.27	2.18	Reading 0 – possible misread
		pH	6.5-8.5	260	116	53	3.69	6.20	7.98	Most failed samples between 5-6.5. One outlier reading of 3.69 – likely a misread.
	SP 7 - Raw Water (Lagoon)	Turbidity	<5 NTU (a) (CL)	260	111	0	0.33	0.86	1.32	
		Conductivity	-	260	27	0	3.30	400.10	676.10	
		pH	-	260	26	0	3.50	6.28	7.40	
	SP 1 - Donga	Turbidity	-	260	26	1	0.00	0.87	4.30	Reading 0 – possible misread
		Free Chlorine	0.2 - 5mg/L (h) (CL)	260	128	0	0.30	0.92	1.37	
		Turbidity	<5 NTU (a) (CL)	260	126	0	0.01	0.65	1.97	
	SP 2 - Health Centre	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	129	0	0.38	0.92	2.06	
		Turbidity	<5 NTU (a) (CL)	260	126	0	0.01	0.63	1.40	
		Free Chlorine	0.2 - 5mg/L (h) (CL)	260	131	0	0.36	0.89	1.67	
11 - Poruma	SP 4 - School	Turbidity	<5 NTU (a) (CL)	260	127	0	0.01	0.65	1.31	
		Conductivity	<1500µS/cm (CL)	260	6	0	414	634.67	871.00	
		Free Chlorine	0.2 - 5mg/L (h) (CL)	260	128	0	0.33	0.98	1.69	
	SP 6 - Reservoir Analyser	pH	6.5-8.5	260	7	0	7.10	7.23	7.50	
		Turbidity	<5 NTU (a) (CL)	260	121	0	0.01	0.66	1.67	
		Conductivity	-	260	4	0	0.34	488.59	889.00	
	Raw Water (Lagoon)	pH	-	260	4	0	6.90	7.15	7.30	
		Turbidity	-	260	13	0	0.34	1.29	1.91	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples Collected	No. Non-compliant Samples	Minimum	Average	Maximum	Comments
12 - Masig	SP 1 - School	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	230	0	0.35	0.95	1.96	
		Turbidity	<5 NTU (a) (CL)	260	205	1	0.00	0.29	0.99	Reading 0 – possible misread
	SP 2 - Council Office	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	225	0	0.23	0.94	1.42	
		Turbidity	<5 NTU (a) (CL)	260	202	0	0.01	0.29	1.28	
	SP 3 - Freezer	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	224	0	0.35	0.94	1.52	
		Turbidity	<5 NTU (a) (CL)	260	201	0	0.01	0.45	2.06	
	SP 4 - Jack	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	222	0	0.31	0.91	2.88	
		Turbidity	<5 NTU (a) (CL)	260	200	0	0.01	0.32	3.50	
	SP 5 - Beatrice	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	228	0	0.34	0.93	2.37	
		Turbidity	<5 NTU (a) (CL)	260	206	0	0.01	0.35	2.19	
13 - Ugar	SP 6 - Reservoir Analyser	Conductivity	<1500µS/cm (CL)	260	218	0	4	404.28	698	
		Free Chlorine	0.2 - 5mg/L (h) (CL)	260	220	0	0.38	1.04	1.68	
		pH	6.5-8.5	260	219	1	6.44	7.01	7.71	One low reading of 6.44
		Turbidity	<5 NTU (a) (CL)	260	197	0	0.01	0.21	1.13	
	SP 7 - Raw Water (Lagoon)	Conductivity	-	260	205	0	0.15	395.70	696.00	
		pH	-	260	204	0	6.10	6.83	8.91	
		Turbidity	-	260	181	0	0.01	0.25	1.02	
		Free Chlorine	0.2 - 5mg/L (h) (CL)	260	228	0	0.53	1.15	2.89	
	SP 1 - Main Tank	Turbidity	<5 NTU (a) (CL)	260	227	0	0.18	1.09	2.60	
		Free Chlorine	0.2 - 5mg/L (h) (CL)	260	227	0	0.44	1.10	2.94	
	SP 2 - Native Beach	Turbidity	<5 NTU (a) (CL)	260	228	0	0.39	1.07	2.28	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples Collected	No. Non-compliant Samples	Minimum	Average	Maximum	Comments
14 - Erub	SP 3 - Health Center	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	227	0	0.42	1.16	2.96	
		Turbidity	<5 NTU (a) (CL)	260	227	0	0.14	1.05	2.08	
	SP 4 - School	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	228	0	0.41	1.13	2.99	
		Turbidity	<5 NTU (a) (CL)	260	226	1	0.00	1.07	2.14	Reading 0 – possible misread
	SP 5 - Front Beach	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	229	0	0.31	0.94	2.09	
		Turbidity	<5 NTU (a) (CL)	260	228	0	0.57	1.38	3.74	
	SP 6 - Reservoir Analyser	Conductivity	<1500µS/cm (CL)	260	228	0	79	563.43	819.00	
		Free Chlorine	0.2 - 5mg/L (h) (CL)	260	227	0	0.29	1.16	3.67	
		pH	6.5-8.5	260	228	7	6.10	7.22	8.50	
		Turbidity	<5 NTU (a) (CL)	260	228	0	0.37	1.06	3.77	
	SP 7 - Raw Water (Lagoon)	Conductivity	-	260	216	0	193.40	540.42	740.60	
		pH	-	260	215	0	6.20	7.29	8.22	
		Turbidity	-	260	216	0	0.42	1.07	2.53	
		Free Chlorine	0.2 - 5mg/L (h) (CL)	260	143	0	0.25	1.09	2	
14 - Erub	SP 1 - Bond House	Turbidity	<5 NTU (a) (CL)	260	144	2	0.42	1.90	11	Reading of 5.53 taken on the 22.10.24, reading of 10.5 taken on 16.10.24. All other sample points below 3NTU on these dates.
		Free Chlorine	0.2 - 5mg/L (h) (CL)	260	119	9	0.00	0.83	2	Most failed readings took place during BWA in early 2025
	SP 2 - Council Office	Turbidity	<5 NTU (a) (CL)	260	115	7	0.00	1.70	3	Reading 0 – possible misread
		Free Chlorine	0.2 - 5mg/L (h) (CL)	260	121	5	0.00	0.88	2	Most failed readings took place during BWA in early 2025
	SP 3 - School	Turbidity	<5 NTU (a) (CL)	260	116	3	0.00	1.69	3	Reading 0 – possible misread
		Free Chlorine	0.2 - 5mg/L (h) (CL)	260	116	3	0.00	1.69	3	Reading 0 – possible misread

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples Collected	No. Non-compliant Samples	Minimum	Average	Maximum	Comments
	SP 4 - Medical Center	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	134	4	0.00	0.90	2	Medical centre sample point location under question as it was taken downstream from water tank and not on the mains reticulation.
		Turbidity	<5 NTU (a) (CL)	260	127	3	0.00	1.64	3	Reading 0 – possible misread
		Free Chlorine	0.2 - 5mg/L (h) (CL)	260	134	2	0.08	1.02	2	Both failed readings took place during BWA in early 2025
	SP 5 - Pitt House	Turbidity	<5 NTU (a) (CL)	260	138	1	0.15	3.45	223	Reading of 223NTU on 27.09.2024. possible misread all surrounding Pitt house readings between 2 and 3.
		Conductivity	<1500µS/cm (CL)	260	90	0	1.94	166.01	293	
		Free Chlorine	0.2 - 5mg/L (h) (CL)	260	122	0	0.22	1.23	3	
	SP 6 - Reservoir Analyser	pH	6.5-8.5	260	202	1	7.00	7.76	77.00	Reading 77, likely actual reading 7.7 and incorrectly entered
		Turbidity	<5 NTU (a) (CL)	260	120	0	0.10	1.71	4.8	
		Conductivity	-	260	91	0	2.03	160.65	199.00	
		pH	-	260	90	0	7.00	7.34	7.80	
15 - Mer	SP 1 - Desalination	Turbidity	-	260	91	0	10.60	29.15	153.00	
		Free Chlorine	0.2 - 5mg/L (h) (CL)	260	205	4	0.01	0.68	1.70	16/4/25 – Low reading missed in retic, not reported. Reservoir reading was 0.63 on same day so possible misread. Also low readings on 15/4, 29/4 30/4/25 – 0.01mg/L. Reservoir reading was 1.15mg/L on same day

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples Collected	No. Non-compliant Samples	Minimum	Average	Maximum	Comments
										so possible misread. Not reported to WSR.
		Turbidity	<5 NTU (a) (CL)	260	166	1	0.00	0.19	1.03	Reading 0 – possible misread
	SP 2 - Old School	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	205	1	0.01	1.07	2.27	16/4/25 – 0.01mg/L. Reservoir reading was 0.63mg/L on same day so possible misread. Not reported to WSR.
		Turbidity	<5 NTU (a) (CL)	260	163	1	0.00	0.20	0.99	Reading 0 – possible misread
	SP 3 - Dongas	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	204	3	0.01	0.73	2.09	16/4/25 – 0.01mg/L. Reservoir reading was 0.63mg/L on same day so possible misread. Not reported to WSR.
		Turbidity	<5 NTU (a) (CL)	260	163	0	0.01	0.23	1.10	
	SP 4 - Cemetery	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	207	2	0.01	0.85	1.86	16/4/25 – 0.01mg/L. Reservoir reading was 0.63mg/L on same day so possible misread. Not reported to WSR.
		Turbidity	<5 NTU (a) (CL)	260	163	1	0.00	0.26	1.00	30/4/25 – 0.01mg/L. Reservoir reading was 1.15mg/L on same day so possible misread. Not reported to WSR.
	SP 5 - Area 3 Annie Salee House	Free Chlorine	0.2 - 5mg/L (h) (CL)	260	204	1	0.13	0.79	1.46	16/4/25 – 0.01mg/L. Reservoir reading was 0.63mg/L on same day so possible misread. Not reported to WSR.
		Turbidity	<5 NTU (a) (CL)	260	163	1	0.00	0.26	1.00	Reading 0 – possible misread

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples Collected	No. Non-compliant Samples	Minimum	Average	Maximum	Comments
	SP 6 - Reservoir Analyser	Turbidity	<5 NTU (a) (CL)	260	162	0	0.01	0.21	0.95	
		Conductivity	<1500µS/cm (CL)	260	200	0	349.00	498.27	726	
		Free Chlorine	0.2 - 5mg/L (h) (CL)	260	205	0	0.57	1.35	3.25	
		pH	6.5-8.5	260	202	4	6.30	6.99	10.10	High reading of 10.1 taken on the 18/11/24
		Turbidity	<5 NTU (a) (CL)	260	163	0	0.01	0.15	1.13	
	Raw Water (Lagoon)	Conductivity	-	260	202	1	0.00	488.07	671.00	Reading 0 – possible misread
		pH	-	260	205	1	0.00	7.02	8.74	High reading of 8.74 taken on the 6/11/24
		Turbidity	-	260	163	1	0.00	0.24	1.79	Reading 0 – possible misread

Appendix C - Water Quality – Verification Monitoring

Appendix C.1 - Water Quality – In-House E. coli Testing

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples Collected	No. non-compliant samples	Comments
01 Boigu	SP 1	E coli	<1	10	5	0	
	SP 2	E coli	<1	10	5	0	
	SP 3	E coli	<1	10	5	0	
	SP 4	E coli	<1	10	5	0	
	SP 5	E coli	<1	10	5	0	
	SP 6 - Reservoir Analyser	E coli	<1	10	5	0	
02 Dauan	SP 1	E coli	<1	10	10	0	
	SP 2	E coli	<1	10	10	0	
	SP 3	E coli	<1	10	10	0	
	SP 4	E coli	<1	10	10	0	
	SP 5	E coli	<1	10	10	0	
	SP 6 - Reservoir Analyser	E coli	<1	10	10	0	
03 Saibai	SP 1	E coli	<1	10	8	1	Incorrect sample point sent for testing – Water officer sent raw water from emergency lagoon as SP1 instead of treated water sample.
	SP 2	E coli	<1	10	8	0	
	SP 3	E coli	<1	10	8	0	
	SP 4	E coli	<1	10	8	0	
	SP 5	E coli	<1	10	8	0	
	SP 6 - Reservoir Analyser	E coli	<1	10	8	0	
04 Mabuag	SP 1	E coli	<1	10	12	1	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples Collected	No. non-compliant samples	Comments
	SP 2	E coli	<1	10	12	0	
	SP 3	E coli	<1	10	12	0	
	SP 4	E coli	<1	10	12	0	
	SP 5	E coli	<1	10	12	0	
	SP 6 - Reservoir Analyser	E coli	<1	10	12	0	
05 Badu	SP 1	E coli	<1	10	10	0	
	SP 2	E coli	<1	10	10	0	
	SP 3	E coli	<1	10	10	0	
	SP 4	E coli	<1	10	10	0	
	SP 5	E coli	<1	10	10	0	
	SP 6 - Reservoir Analyser	E coli	<1	10	10	0	
06 Kubin	SP 1	E coli	<1	10	4	0	
	SP 2	E coli	<1	10	4	0	
	SP 3	E coli	<1	10	4	0	
	SP 4	E coli	<1	10	4	0	
	SP 5	E coli	<1	10	4	0	
	SP 6 - Reservoir Analyser	E coli	<1	10	4	0	
07 – St Pauls	SP 1	E coli	<1	10	7	0	
	SP 2	E coli	<1	10	7	0	
	SP 3	E coli	<1	10	7	0	
	SP 4	E coli	<1	10	7	0	
	SP 5	E coli	<1	10	7	0	
	SP 6 - Reservoir Analyser	E coli	<1	10	13	0	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples Collected	No. non-compliant samples	Comments
08 - Hammond	SP 1	E coli	<1	10	13	0	
	SP 2	E coli	<1	10	13	0	
	SP 3	E coli	<1	10	13	0	
	SP 4	E coli	<1	10	13	0	
	SP 5	E coli	<1	10	13	0	
	SP 6 - Reservoir Analyser	E coli	<1	10	13	0	
09 - Iama	SP 1	E coli	<1	10	9	0	
	SP 2	E coli	<1	10	9	0	
	SP 3	E coli	<1	10	9	0	
	SP 4	E coli	<1	10	9	0	
	SP 5	E coli	<1	10	9	0	
	SP 6 - Reservoir Analyser	E coli	<1	10	9	0	
10 - Warraber	SP 1	E coli	<1	10	7	0	
	SP 2	E coli	<1	10	7	0	
	SP 3	E coli	<1	10	7	0	
	SP 4	E coli	<1	10	7	0	
	SP 5	E coli	<1	10	7	0	
	SP 6 - Reservoir Analyser	E coli	<1	10	7	0	
11 - Poruma	SP 1	E coli	<1	10	5	0	
	SP 2	E coli	<1	10	5	0	
	SP 3	E coli	<1	10	5	0	
	SP 4	E coli	<1	10	5	0	
	SP 5	E coli	<1	10	5	0	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Collected	No. Non-compliant Samples	Minimum	Average	Maximum	Comments
		Silicon	-	1	0	10	10.00	10	
		Calcium	-	1	0	2.3	2.30	2.3	
		Magnesium	-	1	0	0.81	0.81	0.81	
		Potassium	-	1	0	1.8	1.80	1.8	
		Sodium	<180 mg/L (a)	1	0	11	11.00	11	
		Total Hardness	60 - 200 mg/L (a)	1	1	9.1	9.10	9.1	There was one hardness result (9.1 mg/L) for the year, which is below ADWG guideline of 60 mg/L for aesthetics. Not reported to regulator since aesthetic quality. Existing RMIP item to investigate hardness, as this is an issue across all sites.
	SP 7 - Raw Water (Pre Filter)	Iron	< 0.3 mg/L (a)	1	0	0.05	0.05	0.05	
		Manganese	<0.5 mg/L (h)	1	0	0.011	0.01	0.011	
		Total Dissolved Solids	<600 mg/L (a)	1	0	51	51.00	51	
		Conductivity	<1500µS/cm (CL)	1	0	82	82.00	82	
		E coli	<1	1	0	1	1.00	1	
		pH	6.5-8.5	1	0	7.6	7.60	7.6	
	SP 8 - Well	Turbidity	<5 NTU (a) (CL)	1	0	0.1	0.10	0.1	
		Colour	15 HU (a)	1	0	1	1.00	1	
		Conductivity	<1500µS/cm (CL)	1	0	200	200.0	200	
		E coli	<1	1	0	10	10.00	10	
		pH	6.5-8.5	1	0	6.5	6.50	6.5	
		Turbidity	<5 NTU (a) (CL)	1	0	0.9	0.90	0.9	
09 – lama		Colour	15 HU (a)	1	0	3	3.00	3	
		E coli	<1	2	0	1	1.00	1	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples Collected	No. non-compliant samples	Comments
	SP 5	E coli	<1	10	8	0	
	SP 6 - Reservoir Analyser	E coli	<1	10	8	0	

Appendix C.2 - Water Quality – NATA Accredited Testing

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
01 – Boigu	SP 1 – Church	E coli	<1	2	2	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	2	0	10	10.00	10	
		THMs	< 0.25 mg/L (h)	2	1	1	34	34.00	34	Indicates high level of organics, chlorate reading also high at this sample point. Chlorate response procedure enacted.
		Chlorate	< 0.8 mg/L (h)	2	2	2	0.907	1.00	1.1	Indicates high level of organics, THM reading also high at this sample point. Chlorate response procedure enacted
	SP 2 – School	E coli	<1	2	2	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	2	0	10	10.00	10	
	SP 3 – Airport	E coli	<1	2	2	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	2	0	10	25.00	40	
	SP 4 – STP	E coli	<1	2	2	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	2	0	10	85.00	160	
	SP 5 - Health Centre	E coli	<1	2	2	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	2	0	10	15.00	20	
	SP 6 - Reservoir Analyser	Conductivity	<1500µS/cm (CL)	2	2	0	290	315.00	340	
		E coli	<1	2	2	0	0	0.00	0	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
		pH	6.5-8.5	2	2	2	6.2	6.20	6.2	Low pH a known issue at Boigu. Not reported to regulator since ADWG value is for aesthetics (pH >11 considered extreme and may affect health). Further investigation will be carried out into the low readings, and corrective actions undertaken if required; refer RMIP WS-49
		Turbidity	<5 NTU (a) (CL)	2	2	0	0.1	0.15	0.2	
		Heterotrophic Plate Count	-	2	1	0	17000	17000.00	17000	
		Fluoride	<1.5 mg/L (h)	2	2	0	0.03	0.03	0.03	
		Sulphate	<250 mg/L (a)	2	2	0	1.7	2.10	2.5	
		Chloride	<250mg/L (a)	2	2	0	78	86.50	95	
		Colour	15 HU (a)	2	2	0	1	1.05	1.1	
		Total Alkalinity	-	2	2	0	2.6	2.85	3.1	
		Silicon	-	2	2	0	0.2	0.20	0.2	
		Calcium	-	2	2	0	0.96	1.13	1.3	
		Magnesium	-	2	2	0	0.81	0.96	1.1	
		Potassium	-	2	2	0	2	2.25	2.5	
		Sodium	<180 mg/L (a)	2	2	0	50	55.00	60	
		Total Hardness	60 - 200 mg/L (a)	2	2	2	5.7	6.75	7.8	Both reported results were below ADWG guideline for aesthetics (7.8 mg/L, 5.7 mg/L). Not reported to regulator since aesthetic quality. Existing RMIP item to investigate hardness, as this is an issue across all sites.
		Iron	< 0.3 mg/L (a)	2	2	0	0.05	0.05	0.05	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
SP 7 - Raw Water (Lagoon)		Manganese	<0.5 mg/L (h)	2	2	0	0.002	0.00	0.002	
		Total Dissolved Solids	<600 mg/L (a)	2	2	0	140	150.00	160	
		THMs	< 0.25 mg/L (h)	2	1	1	26	26.00	26	Indicates high level of organics, chlorate reading also high at this sample point. Chlorate response procedure enacted.
		Chlorate	< 0.8 mg/L (h)	2	2	2	0.908	1.04	1.18	Indicates high level of organics, THM reading also high at this sample point. Chlorate response procedure enacted
		Conductivity	-	2	2	0	270	320.00	370	
		E coli	-	2	2	0	4	9.50	15	
		pH	-	2	2	0	5.8	5.85	5.9	
		Turbidity	-	2	2	0	0.1	0.20	0.3	
		Fluoride	-	2	1	0	0.03	0.03	0.03	
		Sulphate	-	2	1	0	1.6	1.60	1.6	
		Chloride	-	2	1	0	100	100.00	100	
		Colour	-	2	2	0	1	1.05	1.1	
		Total Alkalinity	-	2	1	0	2.4	2.40	2.4	
		Silicon	-	2	1	0	0.2	0.20	0.2	
		Calcium	-	2	1	0	0.64	0.64	0.64	
		Magnesium	-	2	1	0	0.75	0.75	0.75	
		Potassium	-	2	1	0	2.7	2.70	2.7	
		Sodium	-	2	1	0	61	61.00	61	
		Total Hardness	-	2	1	0	4.7	4.70	4.7	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
02 – Dauan		Iron	-	2	1	0	0.05	0.05	0.05	
		Manganese	-	2	1	0	0.002	0.00	0.002	
		Total Dissolved Solids	-	2	1	0	170	170.00	170	
	SP 1 - N. Mooka	E coli	<1	2	1	0	0	0.00	0	
	SP 2 – School	Heterotrophic Plate Count	-	2	1	0	10	10.00	10	
		E coli	<1	2	1	0	0	0.00	0	
	SP 3 – Council	Heterotrophic Plate Count	-	2	1	0	10	10.00	10	
		E coli	<1	2	1	0	0	0.00	0	
	SP 4 - S. Mooka	Heterotrophic Plate Count	-	2	1	0	10	10.00	10	
		E coli	<1	2	1	0	0	0.00	0	
	SP 5 - Builders Corner	Heterotrophic Plate Count	-	2	1	0	10	10.00	10	
		E coli	<1	2	1	0	0	0.00	0	
	SP 6 - Reservoir Analyser	Conductivity	<1500µS/cm (CL)	2	1	0	220	220.00	220	
		E coli	<1	2	1	0	0	0.00	0	
		pH	6.5-8.5	2	1	1	6.5	6.50	6.5	Not reported to regulator since ADWG value is for aesthetics (pH >11 considered extreme and may affect health). Further investigation will be carried out into the low readings, and corrective actions undertaken if required; refer RMIP WS-49
		Turbidity	<5 NTU (a) (CL)	2	1	0	1.3	1.30	1.3	
		Heterotrophic Plate Count	-	2	1	0	10	10.00	10	
		Fluoride	<1.5 mg/L (h)	2	1	0	0.03	0.03	0.03	
		Sulphate	<250 mg/L (a)	2	1	0	4.7	4.70	4.7	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
		Chloride	<250mg/L (a)	2	1	0	54	54.00	54	
		Colour	15 HU (a)	2	1	0	5.2	5.20	5.2	
		Total Alkalinity	-	2	1	0	9.7	9.70	9.7	
		Silicon	-	2	1	0	26	26.00	26	
		Calcium	-	2	1	0	1.8	1.80	1.8	
		Magnesium	-	2	1	0	2	2.00	2	
		Potassium	-	2	1	0	1.4	1.40	1.4	
		Sodium	<180 mg/L (a)	2	1	0	37	37.00	37	
		Total Hardness	60 - 200 mg/L (a)	2	1	1	13	13.00	13	Recorded results were below ADWG guideline for aesthetics (13 mg/L). Not reported to regulator since aesthetic quality. Existing RMIP item to investigate hardness, as this is an issue across all sites.
		Iron	<0.3 mg/L (a)	2	1	0	0.071	0.07	0.071	
		Manganese	<0.5 mg/L (h)	2	1	0	0.002	0.00	0.002	
	SP 7 - Raw Water (Lagoon)	Total Dissolved Solids	<600 mg/L (a)	2	1	0	130	130.00	130	
		Conductivity	-	2	1	0	170	170.00	170	
		pH	-	2	1	0	6	6.00	6	
		Turbidity	-	2	1	0	1.4	1.40	1.4	
		Colour	-	2	1	0	18	18.00	18	
	SP 10 - Raw Water (Well 1)	Conductivity	-	2	1	0	260	260.00	260	
		E coli	-	2	1	0	0	0.00	0	
		pH	-	2	1	0	5.7	5.70	5.7	
		Turbidity	-	2	1	0	44	44.00	44	
		Colour	-	2	2	0	150	150.00	150	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
03 - Saibai	SP 11 - Raw Water (Well 2)	Conductivity	-	2	1	0	220	220.00	220	
		E coli	-	2	1	0	100	100.00	100	
		pH	-	2	1	0	6.1	6.10	6.1	
		Turbidity	-	2	1	0	35	35.00	35	
	SP 13 - Raw Water (Well 4)	Colour	-	2	2	0	38	94.00	150	
		Conductivity	-	2	1	0	150	150.00	150	
		E coli	-	2	1	0	0	0.00	0	
		pH	-	2	1	0	6.2	6.20	6.2	
		Turbidity	-	2	1	0	40	40.00	40	
		Colour	-	2	1	0	83	83.00	83	
	SP 1 - Water Treatment Pit	E coli	<1	2	2	0	0	0.00	0	
	SP 2 - Council Office	Heterotrophic Plate Count	-	2	1	0	30	30.00	30	
		E coli	<1	2	1	0	0	0.00	0	
	SP 3 - Public Hall	E coli	<1	2	2	0	0	0.00	0	
	SP 4 - House Near Sewage pit	Heterotrophic Plate Count	-	2	1	0	10	10.00	10	
		E coli	<1	2	2	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	1	0	10	10.00	10	
04 – Mabuia	SP 5 - Singyal House Airport Road	E coli	<1	2	2	0	0	0.00	0	
	SP 7 - Raw Water (Pre Filter)	Heterotrophic Plate Count	-	2	1	0	10	10.00	10	
		E coli	-	2	1	0	2	2.00	2	
	SP 1 - Airport Camp	E coli	<1	2	2	0	0	0.00	0	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
		Heterotrophic Plate Count	-	2	2	0	10	10.00	10	
		THMs	< 0.25 mg/L (h)	2	1	1	5	5.00	5	Indicates high level of organics, chlorate reading also high at this sample point. Chlorate response procedure enacted.
		Chlorate	< 0.8 mg/L (h)	2	2	2	0.592	1.64	2.69	Indicates high level of organics, THM reading also high at this sample point. Chlorate response procedure enacted
	SP 2 - Council Office	E coli	<1	2	2	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	2	0	10	10.00	10	
	SP 3 - IBIS Store	E coli	<1	2	2	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	2	0	10	10.00	10	
	SP 4 - Medical Centre	E coli	<1	2	2	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	2	0	20	110.00	200	
	SP 5 - School Duplex	E coli	<1	2	2	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	2	0	10	35.00	60	
	SP 6 - Chlorine Analyser	Conductivity	<1500µS/cm (CL)	2	2	0	100	110.00	120	
		E coli	<1	2	1	0	0	0.00	0	
		pH	6.5-8.5	2	2	0	6.8	6.85	6.9	
		Turbidity	<5 NTU (a) (CL)	2	2	0	0.1	1.80	3.5	
		Heterotrophic Plate Count	-	2	1	0	10	10.00	10	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
		Fluoride	<1.5 mg/L (h)	2	2	0	0.03	0.03	0.03	
		Sulphate	<250 mg/L (a)	2	2	0	1.2	1.90	2.6	
		Chloride	<250mg/L (a)	2	2	0	23	23.00	23	
		Colour	15 HU (a)	2	3	1	1	13.00	28	High colour reported for 1 of the 3 tests taken. Aesthetic limit exceeded only.
		Total Alkalinity	-	2	2	0	5.9	8.95	12	
		Silicon	-	2	2	0	2.1	4.95	7.8	
		Calcium	-	2	2	0	1.2	2.20	3.2	
		Magnesium	-	2	2	0	0.93	1.07	1.2	
		Potassium	-	2	2	0	0.73	1.32	1.9	
		Sodium	<180 mg/L (a)	2	2	0	15	16.00	17	
		Total Hardness	60 - 200 mg/L (a)	2	2	2	7.9	9.95	12	Recorded results were below ADWG guideline for aesthetics. Not reported to regulator since aesthetic quality. Existing RMIP item to investigate hardness, as this is an issue across all sites.
		Iron	<0.3 mg/L (a)	2	2	1	0.05	0.40	0.759	High colour reported for 1 of the 3 tests taken. Aesthetic limit exceeded only.
		Manganese	<0.5 mg/L (h)	2	2	0	0.002	0.04	0.071	
		Total Dissolved Solids	<600 mg/L (a)	2	2	0	55	55.50	56	
		THMs	<0.25 mg/L (h)	2	1	1	100	100.00	100	Indicates high level of organics, chlorate reading also high at this sample point. Chlorate response procedure enacted.
		Chlorate	<0.8 mg/L (h)	2	2	2	2.87	3.23	3.58	Indicates high level of organics, THM reading also

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
05 – Badu	SP 7 - Raw Water (Pre Filter)									high at this sample point. Chlorate response procedure enacted
		Conductivity	-	2	2	0	36	58.50	81	
		E coli	-	2	2	0	6	703.00	1400	
		pH	-	2	2	0	6.7	6.80	6.9	
		Turbidity	-	2	2	0	0.4	2.80	5.2	
		Fluoride	-	2	1	0	0.035	0.04	0.035	
		Sulphate	-	2	1	0	0.76	0.76	0.76	
		Chloride	-	2	1	0	2.9	2.90	2.9	
		Colour	-	2	2	0	5.5	25.25	45	
		Total Alkalinity	-	2	1	0	12	12.00	12	
		Silicon	-	2	1	0	1.7	1.70	1.7	
		Calcium	-	2	1	0	3.1	3.10	3.1	
		Magnesium	-	2	1	0	0.84	0.84	0.84	
		Potassium	-	2	1	0	0.51	0.51	0.51	
		Sodium	-	2	1	0	1.7	1.70	1.7	
		Total Hardness	-	2	1	0	11	11.00	11	
		Iron	-	2	1	0	2.13	2.13	2.13	
		Manganese	-	2	1	0	0.267	0.27	0.267	
		Total Dissolved Solids	-	2	1	0	19	19.00	19	
	SP 1 – School	E coli	<1	2	3	0	0	0.00	0	
05 – Badu	SP 2 - Police Station	Heterotrophic Plate Count	-	2	3	0	10	10.00	10	
		E coli	<1	2	3	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	3	0	10	10.00	10	
05 – Badu	SP 3 – Motel	E coli	<1	2	3	0	0	0.00	0	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
SP 4 – Dogai	SP 5 – Airport	Heterotrophic Plate Count	-	2	3	0	10	10.00	10	
		E coli	<1	2	3	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	3	0	10	10.00	10	
		E coli	<1	2	3	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	3	0	10	116.67	260	
		THMs	< 0.25 mg/L (h)	2	2	2	58	161.50	265	Indicates high level of organics, chlorate reading also high at this sample point. Chlorate response procedure enacted.
		Chlorate	< 0.8 mg/L (h)	2	2	1	0.425	1.43	2.44	Indicates high level of organics, THM reading also high at this sample point. Chlorate response procedure enacted
		Conductivity	<1500µS/cm (CL)	2	3	0	130	216.67	370	
	SP 6 - Reservoir Analyser	E coli	<1	2	1	0	0	0.00	0	
		pH	6.5-8.5	2	3	1	6.2	7.07	7.6	Not reported to regulator since ADWG value is for aesthetics (pH >11 considered extreme and may affect health). Further investigation will be carried out into the low readings, and corrective actions undertaken if required; refer RMIP WS-49
		Turbidity	<5 NTU (a) (CL)	2	3	0	0.1	0.13	0.2	
		Heterotrophic Plate Count	-	2	1	0	10	10.00	10	
		Fluoride	<1.5 mg/L (h)	2	3	0	0.03	0.03	0.03	
		Sulphate	<250 mg/L (a)	2	3	0	0.55	1.25	2.6	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
		Chloride	<250mg/L (a)	2	3	0	12	17.00	21	High colour reported for 1 of the 3 tests taken. Aesthetic limit exceeded only.
		Colour	15 HU (a)	2	3	1	1	7.00	16	
		Total Alkalinity	-	2	3	0	3.8	23.60	34	
		Silicon	-	2	3	0	1.3	2.07	3.1	
		Calcium	-	2	3	0	0.11	0.47	1.1	
		Magnesium	-	2	3	0	0.23	0.67	1.5	
		Potassium	-	2	3	0	0.15	0.20	0.25	
		Sodium	<180 mg/L (a)	2	3	0	24	26.00	29	
		Total Hardness	60 - 200 mg/L (a)	2	3	3	1.2	4.00	9.1	Recorded results were below ADWG guideline for aesthetics. Not reported to regulator since aesthetic quality. Existing RMIP item to investigate hardness, as this is an issue across all sites.
		Iron	<0.3 mg/L (a)	2	3	0	0.05	0.07	0.098	
		Manganese	<0.5 mg/L (h)	2	3	0	0.001	0.00	0.002	
		Total Dissolved Solids	<600 mg/L (a)	2	3	0	43	61.67	72	
		THMs	<0.25 mg/L (h)	2	2	2	44	120.50	197	Indicates high level of organics, chlorate reading also high at this sample point. Chlorate response procedure enacted.
		Chlorate	<0.8 mg/L (h)	2	2	1	0.444	1.58	2.71	Indicates high level of organics, THM reading also high at this sample point. Chlorate response procedure enacted

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
		Aluminium	< 0.2 mg/L (a)	2	1	1	0.29	0.29	0.29	Aluminium level recorded above the aesthetic limit. Not reported to regulator.
	SP 8 - Raw Water (Raw Water Tank)	Conductivity	-	2	3	0	85	96.00	110	
		E coli	-	2	3	0	0	0.00	0	
		pH	-	2	3	0	7	7.37	7.6	
		Turbidity	-	2	3	0	0.5	1.47	2.5	
		Fluoride	-	2	2	0	0.03	0.03	0.03	
		Sulphate	-	2	2	0	0.49	1.55	2.6	
		Chloride	-	2	2	0	7.5	10.25	13	
		Colour	-	2	3	0	28	53.33	71	
		Total Alkalinity	-	2	2	0	31	31.50	32	
		Silicon	-	2	3	0	1.3	2.10	3.1	
		Calcium	-	2	3	0	0.13	0.29	0.54	
		Magnesium	-	2	3	0	0.28	0.53	1	
		Potassium	-	2	3	0	0.15	0.18	0.23	
		Sodium	-	2	3	0	18	19.67	21	
		Total Hardness	-	2	3	0	1.5	2.87	5.6	
		Iron	-	2	3	0	0.087	0.14	0.19	
	Manganese	-	2	3	0	0.001	0.00	0.005		
	Total Dissolved Solids	-	2	2	0	46	53.00	60		
	Aluminium	-	2	1	0	4.12	4.12	4.12		
	E coli	-	2	3	0	0	0.00	0		
	SP 7 - Clear Water Tank	Heterotrophic Plate Count	-	2	3	0	10	10.00	10	
		SP 9 - Well 1	Conductivity	-	2	1	0	31	31.00	31
	E coli		-	2	1	0	0	0	0.00	0

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
	SP 10 - Well 2	pH	-	2	1	0	4.7	4.70	4.7	
		Turbidity	-	2	1	0	0.8	0.80	0.8	
		Colour	-	2	1	0	57	57.00	57	
		Silicon	-	2	1	0	1.9	1.90	1.9	
		Calcium	-	2	1	0	0.2	0.20	0.2	
		Magnesium	-	2	1	0	0.3	0.30	0.3	
		Potassium	-	2	1	0	0.15	0.15	0.15	
		Sodium	-	2	1	0	3.3	3.30	3.3	
		Total Hardness	-	2	1	0	1.5	1.50	1.5	
		Iron	-	2	1	0	0.225	0.23	0.225	
		Manganese	-	2	1	0	0.002	0.00	0.002	
		Conductivity	-	2	3	0	20	38.33	64	
		E coli	-	2	3	0	0	0.00	0	
		pH	-	2	3	0	4.5	4.67	4.8	
		Turbidity	-	2	3	0	0.3	0.67	0.9	
		Fluoride	-	2	2	0	0.03	0.03	0.03	
		Sulphate	-	2	2	0	0.42	1.26	2.1	
		Chloride	-	2	2	0	3.1	8.05	13	
		Colour	-	2	3	0	14	34.67	57	
		Total Alkalinity	-	2	2	0	1	1.00	1	
		Silicon	-	2	3	0	1.2	2.07	3.1	
		Calcium	-	2	3	0	0.1	0.29	0.58	
		Magnesium	-	2	3	0	0.22	0.50	0.98	
		Potassium	-	2	3	0	0.15	0.19	0.27	
		Sodium	-	2	3	0	2	3.77	6.1	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
		Total Hardness	-	2	3	0	1.1	2.70	5.5	
		Iron	-	2	3	0	0.05	0.13	0.224	
		Manganese	-	2	3	0	0.001	0.00	0.007	
		Total Dissolved Solids	-	2	2	0	6.9	15.45	24	
		Aluminium	-	2	1	0	0.1	0.10	0.1	
		Conductivity	-	2	3	0	30	43.67	68	
		E coli	-	2	3	0	0	0.00	0	
		pH	-	2	3	0	4.3	4.57	4.8	
		Turbidity	-	2	3	0	0.4	0.63	0.9	
		Fluoride	-	2	2	0	0.03	0.03	0.03	
	SP 11 - Well 3	Sulphate	-	2	2	0	0.55	1.73	2.9	
		Chloride	-	2	2	0	6	9.50	13	
		Colour	-	2	3	0	30	54.00	75	
		Total Alkalinity	-	2	2	0	1	1.00	1	
		Silicon	-	2	3	0	1.6	2.33	3.4	
		Calcium	-	2	3	0	0.12	0.20	0.27	
		Magnesium	-	2	3	0	0.3	0.58	1.1	
		Potassium	-	2	3	0	0.15	0.17	0.2	
		Sodium	-	2	3	0	3.3	4.30	6	
		Total Hardness	-	2	3	0	1.5	2.80	5.2	
		Iron	-	2	3	0	0.13	0.21	0.262	
		Manganese	-	2	3	0	0.002	0.00	0.003	
		Total Dissolved Solids	-	2	2	0	12	19.00	26	
		Aluminium	-	2	1	0	0.12	0.12	0.12	
		E coli	<1	2	3	0	0	0.00	0	
	SP 1 – IBIS									

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
06 – Kubin		Heterotrophic Plate Count	-	2	3	0	10	10.00	10	
	SP 2 - School Sink	E coli	<1	2	3	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	3	0	10	16.67	30	
	SP 3 – Airport	E coli	<1	2	3	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	3	0	10	143.33	240	
	SP 4 – Tomsanas	E coli	<1	2	3	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	3	0	10	13.33	20	
	SP 5 - Addie Basum	E coli	<1	2	3	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	3	0	10	13.33	20	
		THMs	< 0.25 mg/L (h)	2	2	2	8	44.50	81	Indicates high level of organics, chlorate reading also high at this sample point. Chlorate response procedure enacted.
		Chlorate	< 0.8 mg/L (h)	2	3	3	0.523	1.21	2.11	Indicates high level of organics, THM reading also high at this sample point. Chlorate response procedure enacted
	SP 6 - Reservoir Analyser	Conductivity	<1500µS/cm (CL)	2	3	0	80	133.33	190	
		E coli	<1	2	1	0	0	0.00	0	
		pH	6.5-8.5	2	3	1	6.4	6.60	6.8	Not reported to regulator since ADWG value is for aesthetics (pH >11 considered extreme and may affect health). Further investigation will be carried out into the low readings, and corrective actions undertaken if required; refer RMIP WS-49

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
		Turbidity	<5 NTU (a) (Cl)	2	3	0	0.3	0.47	0.7	
		Heterotrophic Plate Count	-	2	1	0	10	10.00	10	
		Fluoride	<1.5 mg/L (h)	2	3	0	0.03	0.04	0.066	
		Sulphate	<250 mg/L (a)	2	3	0	1.7	2.70	3.9	
		Chloride	<250mg/L (a)	2	3	0	18	30.67	46	
		Colour	15 HU (a)	2	3	0	2.1	2.67	3.3	
		Total Alkalinity	-	2	3	0	6.6	7.57	8.1	
		Silicon	-	2	3	0	7.6	9.87	11	
		Calcium	-	2	3	0	1.2	1.67	2.1	
		Magnesium	-	2	3	0	1.1	1.43	1.8	
		Potassium	-	2	3	0	0.82	1.27	1.7	
		Sodium	<180 mg/L (a)	2	3	0	11	19.00	29	
		Total Hardness	60 - 200 mg/L (a)	2	3	3	7.5	10.17	13	Recorded results were below ADWG guideline for aesthetics. Not reported to regulator since aesthetic quality. Existing RMIP item to investigate hardness, as this is an issue across all sites.
		Iron	< 0.3 mg/L (a)	2	3	0	0.05	0.06	0.068	
		Manganese	<0.5 mg/L (h)	2	3	0	0.001	0.00	0.002	
		Total Dissolved Solids	<600 mg/L (a)	2	3	0	46	71.33	100	
		THMs	< 0.25 mg/L (h)	2	2	2	56	77.00	98	Indicates high level of organics, chlorate reading also high at this sample point. Chlorate response procedure enacted.
		Chlorate	< 0.8 mg/L (h)	2	3	3	0.981	1.69	2.14	Indicates high level of organics, THM reading also high at this sample point.

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
07 - St Pauls	SP 7 - Raw Water (Pre Filter)	Conductivity	-	2	3	0	69	116.33	180	Chlorate response procedure enacted
		E coli	-	2	3	0	2	152.00	440	
		pH	-	2	3	0	6	6.13	6.3	
		Turbidity	-	2	3	0	0.3	1.10	2.5	
		Fluoride	-	2	2	0	0.059	0.06	0.059	
		Sulphate	-	2	2	0	2.5	4.25	6	
		Chloride	-	2	2	0	22	28.50	35	
		Colour	-	2	3	0	5.9	17.07	37	
		Total Alkalinity	-	2	2	0	6.3	10.65	15	
		Silicon	-	2	2	0	11	11.00	11	
		Calcium	-	2	2	0	1.6	2.65	3.7	
		Magnesium	-	2	2	0	1.5	2.60	3.7	
		Potassium	-	2	2	0	1.3	1.85	2.4	
		Sodium	-	2	2	0	13	16.00	19	
		Total Hardness	-	2	2	0	10	17.50	25	
		Iron	-	2	2	0	0.05	0.29	0.529	
		Manganese	-	2	2	0	0.002	0.09	0.168	
		Total Dissolved Solids	-	2	2	0	57	73.00	89	
07 - St Pauls	SP 1 - S. Rosen	E coli	<1	2	3	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	3	0	10	10.00	10	
	SP 2 - Gospel Church	E coli	<1	2	3	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	3	0	10	56.67	150	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
SP 3 - H. Mene	SP 3 - H. Mene	E coli	<1	2	3	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	3	0	10	10.00	10	
	SP 4 – School	E coli	<1	2	3	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	3	0	10	13.33	20	
	SP 5 - Community Police	E coli	<1	2	3	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	3	0	10	10.00	10	
	SP 6 - Reservoir Analyser	Conductivity	<1500µS/cm (CL)	2	3	0	66	118.67	170	
		E coli	<1	2	1	0	0	0.00	0	
		pH	6.5-8.5	2	3	1	6.4	6.53	6.6	Not reported to regulator since ADWG value is for aesthetics (pH >11 considered extreme and may affect health). Further investigation will be carried out into the low readings, and corrective actions undertaken if required; refer RMIP WS-49
		Turbidity	<5 NTU (a) (CL)	2	3	0	0.5	1.63	3.8	
		Heterotrophic Plate Count	-	2	1	0	10	10.00	10	
		Fluoride	<1.5 mg/L (h)	2	3	0	0.03	0.03	0.036	
		Sulphate	<250 mg/L (a)	2	3	0	1.5	3.00	4.7	
		Chloride	<250mg/L (a)	2	3	0	13	23.33	32	
		Colour	15 HU (a)	2	3	0	1.6	4.20	8.8	
		Total Alkalinity	-	2	3	0	7.6	11.53	14	
		Silicon	-	2	3	0	6.3	12.43	18	
		Calcium	-	2	3	0	1.9	3.40	4.8	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
SP 7 - Raw Water (Lagoon)		Magnesium	-	2	3	0	0.84	1.45	2	
		Potassium	-	2	3	0	0.51	0.90	1.3	
		Sodium	<180 mg/L (a)	2	3	0	8.6	15.53	22	
		Total Hardness	60 - 200 mg/L (a)	2	3	3	8.2	14.40	20	Recorded results were below ADWG guideline for aesthetics. Not reported to regulator since aesthetic quality. Existing RMIP item to investigate hardness, as this is an issue across all sites.
		Iron	< 0.3 mg/L (a)	2	3	0	0.05	0.11	0.234	
		Manganese	<0.5 mg/L (h)	2	3	0	0.002	0.00	0.005	
		Total Dissolved Solids	<600 mg/L (a)	2	3	0	37	67.33	94	
		Conductivity	-	2	3	0	52	97.33	140	
		E coli	-	2	3	0	4	21.50	39	
		pH	-	2	3	0	6.2	6.27	6.4	
		Turbidity	-	2	3	0	0.6	1.77	4	
		Fluoride	-	2	2	0	0.03	0.03	0.039	
		Sulphate	-	2	2	0	2.8	3.70	4.6	
		Chloride	-	2	2	0	19	23.00	27	
		Colour	-	2	3	0	3.2	8.50	15	
		Total Alkalinity	-	2	2	0	12	12.00	12	
		Silicon	-	2	2	0	13	15.00	17	
		Calcium	-	2	2	0	3.4	4.10	4.8	
		Magnesium	-	2	2	0	1.4	1.70	2	
		Potassium	-	2	2	0	0.84	1.02	1.2	
		Sodium	-	2	2	0	11	13.50	16	
		Total Hardness	-	2	2	0	14	17.00	20	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
SP 7 - Raw Water (Lagoon)		Magnesium	-	2	3	0	0.84	1.45	2	
		Potassium	-	2	3	0	0.51	0.90	1.3	
		Sodium	<180 mg/L (a)	2	3	0	8.6	15.53	22	
		Total Hardness	60 - 200 mg/L (a)	2	3	3	8.2	14.40	20	Recorded results were below ADWG guideline for aesthetics. Not reported to regulator since aesthetic quality. Existing RMIP item to investigate hardness, as this is an issue across all sites.
		Iron	< 0.3 mg/L (a)	2	3	0	0.05	0.11	0.234	
		Manganese	<0.5 mg/L (h)	2	3	0	0.002	0.00	0.005	
		Total Dissolved Solids	<600 mg/L (a)	2	3	0	37	67.33	94	
		Conductivity	-	2	3	0	52	97.33	140	
		E coli	-	2	3	0	4	21.50	39	
		pH	-	2	3	0	6.2	6.27	6.4	
		Turbidity	-	2	3	0	0.6	1.77	4	
		Fluoride	-	2	2	0	0.03	0.03	0.039	
		Sulphate	-	2	2	0	2.8	3.70	4.6	
		Chloride	-	2	2	0	19	23.00	27	
		Colour	-	2	3	0	3.2	8.50	15	
		Total Alkalinity	-	2	2	0	12	12.00	12	
		Silicon	-	2	2	0	13	15.00	17	
		Calcium	-	2	2	0	3.4	4.10	4.8	
		Magnesium	-	2	2	0	1.4	1.70	2	
		Potassium	-	2	2	0	0.84	1.02	1.2	
		Sodium	-	2	2	0	11	13.50	16	
		Total Hardness	-	2	2	0	14	17.00	20	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
08 – Hammond		Iron	-	2	2	0	0.05	0.12	0.181	
		Manganese	-	2	2	0	0.005	0.01	0.014	
		Total Dissolved Solids	-	2	2	0	59	69.50	80	
		E coli	<1	2	2	0	0	0.00	0	
	SP 1 – Compound	Heterotrophic Plate Count	-	2	2	0	10	10.00	10	
		THMs	< 0.25 mg/L (h)	2	1	1	43	43.00	43	Indicates high level of organics which is a common issue for the TSIRC water treatment sites
		Chlorate	< 0.8 mg/L (h)	2	1	0	0.338	0.34	0.338	
		E coli	<1	2	2	0	0	0.00	0	
	SP 2 – Subdivision	Heterotrophic Plate Count	-	2	2	0	10	10.00	10	
		E coli	<1	2	2	0	0	0.00	0	
	SP 3 – Bindjudas	Heterotrophic Plate Count	-	2	2	0	10	10.00	10	
		E coli	<1	2	2	0	0	0.00	0	
	SP 4 – Village	Heterotrophic Plate Count	-	2	2	0	10	10.00	10	
		E coli	<1	2	2	0	0	0.00	0	
	SP 5 – Becklys	Heterotrophic Plate Count	-	2	2	0	10	25.00	40	
		Conductivity	<1500µS/cm (CL)	2	2	0	87	93.50	100	
	SP 6 - Reservoir Analyser	E coli	<1	2	1	0	0	0.00	0	
		pH	6.5-8.5	2	2	0	7.6	7.80	8	
		Turbidity	<5 NTU (a) (CL)	2	2	0	0.1	0.25	0.4	
		Heterotrophic Plate Count	-	2	1	0	10	10.00	10	
		Fluoride	<1.5 mg/L (h)	2	2	0	0.03	0.03	0.031	
		Sulphate	<250 mg/L (a)	2	2	0	1.6	1.75	1.9	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
SP 7 - Raw Water (Pre Filter)		Chloride	<250mg/L (a)	2	2	0	16	17.50	19	
		Colour	15 HU (a)	2	2	0	1	1.00	1	
		Total Alkalinity	-	2	2	0	13	14.00	15	
		Silicon	-	2	2	0	12	12.00	12	
		Calcium	-	2	2	0	2.8	3.20	3.6	
		Magnesium	-	2	2	0	0.94	0.97	1	
		Potassium	-	2	2	0	2	2.05	2.1	
		Sodium	<180 mg/L (a)	2	2	0	12	12.50	13	
		Total Hardness	60 - 200 mg/L (a)	2	2	2	11	12.00	13	Recorded results were below ADWG guideline for aesthetics. Not reported to regulator since aesthetic quality. Existing RMIP item to investigate hardness, as this is an issue across all sites.
		Iron	< 0.3 mg/L (a)	2	2	0	0.05	0.05	0.05	
		Manganese	<0.5 mg/L (h)	2	2	0	0.008	0.01	0.012	
		Total Dissolved Solids	<600 mg/L (a)	2	2	0	55	58.00	61	
		THMs	< 0.25 mg/L (h)	2	1	1	46	46.00	46	Indicates high level of organics which is a common issue for the TSIRC water treatment sites
	SP 7 - Raw Water (Pre Filter)	Chlorate	< 0.8 mg/L (h)	2	1	0	0.344	0.34	0.344	
		Conductivity	-	2	2	0	87	93.50	100	
		E coli	-	2	2	0	0	0.00	0	
		pH	-	2	2	0	7.7	7.90	8.1	
		Turbidity	-	2	2	0	0.1	0.10	0.1	
		Fluoride	-	2	1	0	0.03	0.03	0.03	
		Sulphate	-	2	1	0	1.9	1.90	1.9	

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Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
		Chloride	-	2	1	0	19	19.00	19	
		Colour	-	2	2	0	1	1.00	1	
		Total Alkalinity	-	2	1	0	15	15.00	15	
		Silicon	-	2	1	0	11	11.00	11	
		Calcium	-	2	1	0	3.4	3.40	3.4	
		Magnesium	-	2	1	0	1	1.00	1	
		Potassium	-	2	1	0	1.9	1.90	1.9	
		Sodium	-	2	1	0	12	12.00	12	
		Total Hardness	-	2	1	0	13	13.00	13	
		Iron	-	2	1	0	0.05	0.05	0.05	
		Manganese	-	2	1	0	0.002	0.00	0.002	
		Total Dissolved Solids	-	2	1	0	60	60.00	60	
	SP 1 - Medical Centre	E coli	-	2	2	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	2	0	10	10.00	10	
	SP 2 – School	E coli	-	2	2	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	2	0	10	10.00	10	
09 – Iama	SP 3 - David Roley	E coli	-	2	2	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	2	0	10	10.00	10	
	SP 4 – Council	E coli	-	2	2	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	2	0	10	10.00	10	
	SP 5 – Ben	E coli	-	2	2	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	2	0	10	20.00	30	
	SP 6 - Reservoir Analyser	Conductivity	-	2	2	0	770	870.00	970	
		E coli	-	2	1	0	0	0.00	0	
		pH	-	2	2	0	7	7.59	8.17	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
		Turbidity	-	2	2	0	0.1	0.10	0.1	
		Heterotrophic Plate Count	-	2	1	0	10	10.00	10	
		Fluoride	-	2	2	0	0.03	0.03	0.03	
		Sulphate	-	2	2	0	1.2	2.20	3.2	
		Chloride	-	2	2	0	230	265.00	300	
		Colour	-	2	2	0	1	1.00	1	
		Total Alkalinity	-	2	2	0	3.3	4.05	4.8	
		Silicon	-	2	2	0	0.2	0.20	0.2	
		Calcium	-	2	2	0	0.51	0.55	0.59	
		Magnesium	-	2	2	0	0.41	0.96	1.5	
		Potassium	-	2	2	0	5.2	6.10	7	
		Sodium	-	2	2	0	130	155.00	180	
		Total Hardness	-	2	2	0	3	5.35	7.7	
		Iron	-	2	2	0	0.05	0.05	0.05	
		Manganese	-	2	2	0	0.002	0.00	0.002	
		Total Dissolved Solids	-	2	2	0	370	430.00	490	
		Conductivity	-	2	2	0	790	945.00	1100	
		E coli	-	2	2	0	0	0.00	0	
		pH	-	2	2	0	6.8	7.26	7.72	
		Turbidity	-	2	2	0	0.1	0.10	0.1	
SP 7 - Raw Water (Permeate Tank)		Heterotrophic Plate Count	-	2	1	0	10	10.00	10	
		Fluoride	-	2	1	0	0.03	0.03	0.03	
		Sulphate	-	2	1	0	1.3	1.30	1.3	
		Chloride	-	2	1	0	230	230.00	230	
		Colour	-	2	2	0	1	1.00	1	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
		Total Alkalinity	-	2	1	0	2.9	2.90	2.9	
		Silicon	-	2	1	0	0.2	0.20	0.2	
		Calcium	-	2	1	0	0.2	0.20	0.2	
		Magnesium	-	2	1	0	0.47	0.47	0.47	
		Potassium	-	2	1	0	5.5	5.50	5.5	
		Sodium	-	2	1	0	140	140.00	140	
		Total Hardness	-	2	1	0	2.4	2.40	2.4	
		Iron	-	2	1	0	0.05	0.05	0.05	
		Manganese	-	2	1	0	0.002	0.00	0.002	
		Total Dissolved Solids	-	2	1	0	380	380.00	380	
		E coli	<1	2	2	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	2	0	10	10.00	10	
		E coli	<1	2	3	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	3	0	10	10.00	10	
10 – Warraber	SP 1 – Reservoir	E coli	<1	2	2	0	0	0.00	0	
	SP 2 - Jensen P	Heterotrophic Plate Count	-	2	3	0	10	10.00	10	
	SP 3 - William P	E coli	<1	2	3	0	0	0.00	0	
	SP 4 – School	Heterotrophic Plate Count	-	2	3	0	10	10.00	10	
	SP 5 – Wharf	E coli	<1	2	3	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	3	0	10	10.00	10	
		THMs	< 0.25 mg/L (h)	2	2	2	39	51.00	63	Indicates high level of organics, chlorate reading also high at this sample point. Chlorate response procedure enacted.
		Chlorate	< 0.8 mg/L (h)	2	2	2	1.78	2.22	2.66	Indicates high level of organics, THM reading also

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
SP 6 - Reservoir Analyser		Conductivity	<1500µS/cm (CL)	2	3	0	220	726.67	1300	high at this sample point. Chlorate response procedure enacted
		E coli	<1	2	2	0	0	0.00	0	
		pH	6.5-8.5	2	3	1	6.4	6.67	7	Not reported to regulator since ADWG value is for aesthetics (pH >11 considered extreme and may affect health). Further investigation will be carried out into the low readings, and corrective actions undertaken if required; refer RMIP WS-49
		Turbidity	<5 NTU (a) (CL)	2	3	0	0.1	0.23	0.4	
		Heterotrophic Plate Count	-	2	1	0	10	10.00	10	
		Fluoride	<1.5 mg/L (h)	2	3	0	0.03	0.03	0.03	
		Sulphate	<250 mg/L (a)	2	3	0	1.8	9.93	19	
		Chloride	<250mg/L (a)	2	3	1	49	206.33	390	High chloride on one of three tests taken. Aesthetic level only, not reported to the Regulator.
		Colour	15 HU (a)	2	3	0	1	1.20	1.6	
		Total Alkalinity	-	2	3	0	5.9	10.07	17	
		Silicon	-	2	3	0	0.1	0.17	0.2	
		Calcium	-	2	3	0	2.8	4.50	5.9	
		Magnesium	-	2	3	0	0.81	4.77	9.4	
		Potassium	-	2	3	0	1.3	5.17	10	
		Sodium	<180 mg/L (a)	2	3	1	33	121.00	220	High Sodium on one of three tests taken. Aesthetic level

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
										only, not reported to the Regulator.
		Total Hardness	60 - 200 mg/L (a)	2	3	3	18	31.00	51	Recorded results were below ADWG guideline for aesthetics. Not reported to regulator since aesthetic quality. Existing RMIP item to investigate hardness, as this is an issue across all sites.
		Iron	< 0.3 mg/L (a)	2	3	0	0.05	0.05	0.05	
		Manganese	<0.5 mg/L (h)	2	3	0	0.001	0.00	0.002	
		Total Dissolved Solids	<600 mg/L (a)	2	3	1	100	356.67	660	High TDS on one of three tests taken. Aesthetic level only, not reported to the Regulator.
		THMs	< 0.25 mg/L (h)	2	2	2	13	25.00	37	Indicates high level of organics, chlorate reading also high at this sample point. Chlorate response procedure enacted.
		Chlorate	< 0.8 mg/L (h)	2	2	2	1.8	2.20	2.6	Indicates high level of organics, THM reading also high at this sample point. Chlorate response procedure enacted
		Conductivity	-	2	3	0	180	660.00	1200	
		E coli	-	2	3	0	17	76.67	190	
		pH	-	2	3	0	6.1	6.30	6.7	
SP 7 - Raw Water (Lagoon)		Turbidity	-	2	3	0	0.1	0.30	0.5	
		Fluoride	-	2	2	0	0.03	0.03	0.03	
		Sulphate	-	2	2	0	1.8	5.35	8.9	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
		Chloride	-	2	2	0	38	104.00	170	
		Colour	-	2	3	0	1.1	2.37	3	
		Total Alkalinity	-	2	2	0	4.1	10.55	17	
		Silicon	-	2	2	0	0.08	0.14	0.2	
		Calcium	-	2	2	0	2.9	4.45	6	
		Magnesium	-	2	2	0	0.82	2.46	4.1	
		Potassium	-	2	2	0	1.3	2.75	4.2	
		Sodium	-	2	2	0	24	59.50	95	
		Total Hardness	-	2	2	0	18	21.00	24	
		Iron	-	2	2	0	0.05	0.05	0.05	
		Manganese	-	2	2	0	0.001	0.00	0.002	
		Total Dissolved Solids	-	2	2	0	83	186.50	290	
11 – Poruma	SP 1 – Donga	E coli	<1	2	3	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	2	0	10	45.00	80	
	SP 2 - Health Centre	E coli	<1	2	3	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	2	0	10	10.00	10	
	SP 4 – School	E coli	<1	2	3	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	2	0	10	10.00	10	
		THMs	<0.25 mg/L (h)	2	1	1	25	25.00	25	Indicates high level of organics, chlorate reading also high at this sample point. Chlorate response procedure enacted.
		Chlorate	<0.8 mg/L (h)	2	1	1	0.572	0.57	0.572	Indicates high level of organics, THM reading also high at this sample point.

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
SP 6 - Reservoir Analyser										Chlorate response procedure enacted
		Conductivity	<1500µS/cm (CL)	2	2	0	380	590.00	800	
		E coli	<1	2	1	1	13	13.00	13	E. coli failure was attributed to the sample point being unable to be properly sterilised when sampling occurs. As a result, the sample tap has been removed from service. Replacement sample tap rollout underway.
		pH	6.5-8.5	2	2	1	6.3	6.50	6.7	Not reported to regulator since ADWG value is for aesthetics (pH >11 considered extreme and may affect health). Further investigation will be carried out into the low readings, and corrective actions undertaken if required; refer RMIP WS-49
		Turbidity	<5 NTU (a) (CL)	2	2	0	0.3	0.30	0.3	
		Heterotrophic Plate Count	-	2	1	0	1100	1100.00	1100	
		Fluoride	<1.5 mg/L (h)	2	2	0	0.03	0.03	0.03	
		Sulphate	<250 mg/L (a)	2	2	0	1.7	3.45	5.2	
		Chloride	<250mg/L (a)	2	2	0	100	165.00	230	
		Colour	15 HU (a)	2	2	0	2.2	2.45	2.7	
		Total Alkalinity	-	2	2	0	4.7	5.05	5.4	
		Silicon	-	2	2	0	0.2	0.20	0.2	
		Calcium	-	2	2	0	0.72	1.01	1.3	
		Magnesium	-	2	2	0	0.45	0.83	1.2	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
		Potassium	-	2	2	0	2.7	4.15	5.6	
		Sodium	<180 mg/L (a)	2	2	0	64	102.00	140	
		Total Hardness	60 - 200 mg/L (a)	2	2	2	3.7	5.95	8.2	Recorded results were below ADWG guideline for aesthetics. Not reported to regulator since aesthetic quality. Existing RMIP item to investigate hardness, as this is an issue across all sites.
		Iron	< 0.3 mg/L (a)	2	2	0	0.05	0.05	0.052	
		Manganese	<0.5 mg/L (h)	2	2	0	0.002	0.00	0.002	
		Total Dissolved Solids	<600 mg/L (a)	2	2	0	170	280.00	390	
		THMs	< 0.25 mg/L (h)	2	1	1	8	8.00	8	Indicates high level of organics, chlorate reading also high at this sample point. Chlorate response procedure enacted.
		Chlorate	< 0.8 mg/L (h)	2	1	1	0.579	0.58	0.579	Indicates high level of organics, THM reading also high at this sample point. Chlorate response procedure enacted
	SP 3 - Dick Billys House (old)	E coli	<1	2	2	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	1	0	10	10.00	10	
	SP 5 - Tourist Cabin (old)	E coli	<1	2	2	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	1	0	10	10.00	10	
	Raw Water (Lagoon)	Conductivity	-	2	2	0	120	455.00	790	
		E coli	-	2	2	0	26	38.50	51	
		pH	-	2	2	0	6.6	7.05	7.5	
		Turbidity	-	2	2	0	0.1	0.20	0.3	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
12 – Masig		Fluoride	-	2	1	0	0.03	0.03	0.03	
		Sulphate	-	2	1	0	5.2	5.20	5.2	
		Chloride	-	2	1	0	230	230.00	230	
		Colour	-	2	2	0	2.1	2.45	2.8	
		Total Alkalinity	-	2	1	0	4.8	4.80	4.8	
		Silicon	-	2	1	0	0.2	0.20	0.2	
		Calcium	-	2	1	0	1.2	1.20	1.2	
		Magnesium	-	2	1	0	1.2	1.20	1.2	
		Potassium	-	2	1	0	5.6	5.60	5.6	
		Sodium	-	2	1	0	130	130.00	130	
		Total Hardness	-	2	1	0	7.8	7.80	7.8	
		Iron	-	2	1	0	0.05	0.05	0.05	
		Manganese	-	2	1	0	0.002	0.00	0.002	
		Total Dissolved Solids	-	2	1	0	380	380.00	380	
		E coli	<1	2	3	0	0	0.00	0	
	SP 1 – School	Heterotrophic Plate Count	-	2	3	0	10	10.00	10	
	SP 2 - Council Office	E coli	<1	2	3	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	3	0	10	10.00	10	
	SP 3 – Freezer	E coli	<1	2	3	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	3	0	10	10.00	10	
	SP 4 – Jack	E coli	<1	2	3	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	3	0	10	10.00	10	
	SP 5 – Beatrice	E coli	<1	2	3	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	3	0	10	10.00	10	
		THMs	< 0.25 mg/L (h)	2	2	2	11	17.00	23	Indicates high level of organics, chlorate reading

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
SP 6 - Reservoir Analyser		Chlorate	< 0.8 mg/L (h)	2	3	2	0.372	0.77	1.13	Indicates high level of organics, THM reading also high at this sample point. Chlorate response procedure enacted.
		Conductivity	<1500µS/cm (CL)	2	2	0	260	365.00	470	
		E coli	<1	2	1	0	0	0.00	0	
		pH	6.5-8.5	2	3	3	6.4	6.47	6.5	Not reported to regulator since ADWG value is for aesthetics (pH >11 considered extreme and may affect health). Further investigation will be carried out into the low readings, and corrective actions undertaken if required; refer RMIP WS-49
		Turbidity	<5 NTU (a) (CL)	2	3	0	0.1	0.20	0.3	
		Heterotrophic Plate Count	-	2	1	0	10	10.00	10	
		Fluoride	<1.5 mg/L (h)	2	3	0	0.03	0.03	0.03	
		Sulphate	<250 mg/L (a)	2	3	0	1.4	1.70	2	
		Chloride	<250mg/L (a)	2	2	0	70	100.00	130	
		Colour	15 HU (a)	2	2	0	1	1.00	1	
		Total Alkalinity	-	2	3	0	4.2	4.73	5.4	
		Silicon	-	2	3	0	0.12	0.17	0.2	
		Calcium	-	2	2	0	0.94	1.02	1.1	
		Magnesium	-	2	3	0	0.44	0.47	0.51	
		Potassium	-	2	3	0	1.5	2.23	2.9	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
		Sodium	<180 mg/L (a)	2	3	0	42	60.67	78	
		Total Hardness	60 - 200 mg/L (a)	2	3	3	4.1	4.40	4.6	Recorded results were below ADWG guideline for aesthetics. Not reported to regulator since aesthetic quality. Existing RMIP item to investigate hardness, as this is an issue across all sites.
		Iron	<0.3 mg/L (a)	2	3	0	0.05	0.05	0.05	
		Manganese	<0.5 mg/L (h)	2	3	0	0.001	0.00	0.002	
		Total Dissolved Solids	<600 mg/L (a)	2	3	0	120	170.00	220	
		THMs	<0.25 mg/L (h)	2	2	2	6	9.00	12	Indicates high level of organics, chlorate reading also high at this sample point. Chlorate response procedure enacted.
		Chlorate	<0.8 mg/L (h)	2	3	3	0.67	1.01	1.25	Indicates high level of organics, THM reading also high at this sample point. Chlorate response procedure enacted
	SP 7 - Raw Water (Lagoon)	Conductivity	-	2	3	0	160	263.33	360	
		E coli	-	2	3	0	10	17.00	24	
		pH	-	2	3	0	6.1	6.17	6.3	
		Turbidity	-	2	3	0	0.2	0.20	0.2	
		Fluoride	-	2	2	0	0.03	0.03	0.03	
		Sulphate	-	2	2	0	1.7	1.75	1.8	
		Chloride	-	2	2	0	73	86.00	99	
		Colour	-	2	3	0	1	1.20	1.4	
		Total Alkalinity	-	2	2	0	2.9	3.55	4.2	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
13 – Ugar		Silicon	-	2	2	0	0.06	0.13	0.2	
		Calcium	-	2	2	0	0.77	1.29	1.8	
		Magnesium	-	2	2	0	0.45	0.52	0.58	
		Potassium	-	2	2	0	1.7	2.00	2.3	
		Sodium	-	2	2	0	45	52.50	60	
		Total Hardness	-	2	2	0	3.8	5.30	6.8	
		Iron	-	2	2	0	0.05	0.05	0.05	
		Manganese	-	2	2	0	0.001	0.00	0.002	
		Total Dissolved Solids	-	2	2	0	130	150.00	170	
		E coli	<1	2	2	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	2	0	10	10.00	10	
		E coli	<1	2	2	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	2	0	10	80.00	150	
		E coli	<1	2	2	0	0	0.00	0	
13 – Ugar	SP 1 - Main Tank	Heterotrophic Plate Count	-	2	2	0	10	10.00	10	
	SP 2 - Native Beach	E coli	<1	2	2	0	0	0.00	0	
	SP 2 - Native Beach	Heterotrophic Plate Count	-	2	2	0	10	80.00	150	
	SP 3 - Health Center	E coli	<1	2	2	0	0	0.00	0	
	SP 3 - Health Center	Heterotrophic Plate Count	-	2	2	0	10	10.00	10	
	SP 4 – School	E coli	<1	2	2	0	0	0.00	0	
	SP 4 – School	Heterotrophic Plate Count	-	2	2	0	10	10.00	10	
	SP 5 - Front Beach	E coli	<1	2	2	0	0	0.00	0	
	SP 5 - Front Beach	Heterotrophic Plate Count	-	2	2	0	10	10.00	10	
	SP 6 - Reservoir Analyser	Conductivity	<1500µS/cm (CL)	2	2	0	560	600.00	640	
		pH	6.5-8.5	2	2	2	6.2	6.20	6.2	Not reported to regulator since ADWG value is for aesthetics (pH >11 considered extreme and may affect health). Further investigation will be carried out into the low readings, and

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
		Turbidity	<5 NTU (a) (CL)	2	2	0	0.1	0.10	0.1	corrective actions undertaken if required; refer RMIP WS-49
		Fluoride	<1.5 mg/L (h)	2	2	0	0.03	0.03	0.03	
		Sulphate	<250 mg/L (a)	2	2	0	1.7	1.80	1.9	
		Chloride	<250mg/L (a)	2	2	0	160	170.00	180	
		Colour	15 HU (a)	2	2	0	1	1.00	1	
		Total Alkalinity	-	2	2	0	4.4	4.70	5	
		Silicon	-	2	2	0	0.2	0.20	0.2	
		Calcium	-	2	2	0	0.99	1.00	1	
		Magnesium	-	2	2	0	0.78	0.82	0.85	
		Potassium	-	2	2	0	3.8	4.00	4.2	
		Sodium	<180 mg/L (a)	2	2	0	96	103.00	110	
		Total Hardness	60 - 200 mg/L (a)	2	2	2	5.7	5.90	6.1	Recorded results were below ADWG guideline for aesthetics. Not reported to regulator since aesthetic quality. Existing RMIP item to investigate hardness, as this is an issue across all sites.
	Iron	< 0.3 mg/L (a)	2	2	0	0.05	0.05	0.05		
	Manganese	<0.5 mg/L (h)	2	2	0	0.002	0.00	0.002		
	Total Dissolved Solids	<600 mg/L (a)	2	2	0	270	290.00	310		
	SP 7 - Raw Water (Lagoon)	Conductivity	-	2	2	0	530	565.00	600	
E coli		-	2	2	0	2	20.00	38		
pH		-	2	2	0	5.9	5.95	6		
Turbidity		-	2	2	0	0.1	0.10	0.1		
Fluoride		-	2	1	0	0.03	0.03	0.03		
		Sulphate	-	2	1	0	1.8	1.80	1.8	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
		Chloride	-	2	1	0	180	180.00	180	
		Colour	-	2	2	0	1	1.00	1	
		Total Alkalinity	-	2	1	0	3.4	3.40	3.4	
		Silicon	-	2	1	0	0.2	0.20	0.2	
		Calcium	-	2	1	0	1	1.00	1	
		Magnesium	-	2	1	0	0.86	0.86	0.86	
		Potassium	-	2	1	0	4.2	4.20	4.2	
		Sodium	-	2	1	0	100	100.00	100	
		Total Hardness	-	2	1	0	6.1	6.10	6.1	
		Iron	-	2	1	0	0.05	0.05	0.05	
		Manganese	-	2	1	0	0.004	0.00	0.004	
		Total Dissolved Solids	-	2	1	0	290	290.00	290	
	SP 1 - Bond House	E coli	<1	2	2	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	2	0	10	10.00	10	
	SP 2 - Council Office	E coli	<1	2	2	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	2	0	10	10.00	10	
	SP 3 - School	E coli	<1	2	2	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	2	0	10	10.00	10	
		THMs	< 0.25 mg/L (h)	2	1	1	83	83.00	83	Indicates high level of organics, chlorate reading also high at this sample point. Chlorate response procedure enacted.
14 - Erub		Chlorate	< 0.8 mg/L (h)	2	1	1	0.589	0.59	0.589	Indicates high level of organics, THM reading also high at this sample point.

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
SP 4 - Medical Center	SP 4 - Medical Center	E coli	<1	2	2	0	0	0.00	0	Chlorate response procedure enacted
		Heterotrophic Plate Count	-	2	2	0	10	15.00	20	
		E coli	<1	2	2	1	4	4.00	4	E. Coli failure attributed to the sample tap being located after a privately owned water tank. Sample point relocated.
	SP 5 - Pitt House	Heterotrophic Plate Count	-	2	2	0	10	345.00	680	
		Conductivity	<1500µS/cm (CL)	2	2	0	180	185.00	190	
		E coli	<1	2	1	0	0	0.00	0	
	SP 6 - Reservoir Analyser	pH	6.5-8.5	2	2	0	7	7.15	7.3	
		Turbidity	<5 NTU (a) (CL)	2	2	0	0.1	0.10	0.1	
		Heterotrophic Plate Count	-	2	1	0	10	10.00	10	
		Fluoride	<1.5 mg/L (h)	2	2	0	0.03	0.04	0.045	
		Sulphate	<250 mg/L (a)	2	2	0	3.7	4.10	4.5	
		Chloride	<250mg/L (a)	2	2	0	26	27.50	29	
		Colour	15 HU (a)	2	2	0	2	2.75	3.5	
		Total Alkalinity	-	2	2	0	36	37.50	39	
		Silicon	-	2	2	0	27	29.00	31	
		Calcium	-	2	2	0	5.2	5.30	5.4	
		Magnesium	-	2	2	0	4.2	4.30	4.4	
		Potassium	-	2	2	0	2.5	2.60	2.7	
		Sodium	<180 mg/L (a)	2	2	0	22	22.50	23	
		Total Hardness	60 - 200 mg/L (a)	2	2	2	31	31.00	31	Recorded results were below ADWG guideline for aesthetics. Not reported to regulator since

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
SP 8 - Raw Water (Pre UF)		Iron	< 0.3 mg/L (a)	2	2	0	0.05	0.05	0.05	aesthetic quality. Existing RMIP item to investigate hardness, as this is an issue across all sites.
		Manganese	<0.5 mg/L (h)	2	2	0	0.002	0.00	0.002	
		Total Dissolved Solids	<600 mg/L (a)	2	2	0	120	120.00	120	
		THMs	< 0.25 mg/L (h)	2	1	1	86	86.00	86	Indicates high level of organics, chlorate reading also high at this sample point. Chlorate response procedure enacted.
		Chlorate	< 0.8 mg/L (h)	2	1	1	0.599	0.60	0.599	Indicates high level of organics, THM reading also high at this sample point. Chlorate response procedure enacted
		Conductivity	-	2	2	0	160	170.00	180	
		E coli	-	2	2	0	2	2.50	3	
		pH	-	2	2	0	6.9	6.95	7	
		Turbidity	-	2	2	0	8.1	16.05	24	
		Fluoride	-	2	1	0	0.034	0.03	0.034	
		Sulphate	-	2	1	0	4.5	4.50	4.5	
		Chloride	-	2	1	0	24	24.00	24	
		Colour	-	2	2	0	32	57.00	82	
		Total Alkalinity	-	2	1	0	39	39.00	39	
		Silicon	-	2	1	0	32	32.00	32	
		Calcium	-	2	1	0	5.9	5.90	5.9	
		Magnesium	-	2	1	0	4.7	4.70	4.7	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
15 – Mer		Potassium	-	2	1	0	2.6	2.60	2.6	
		Sodium	-	2	1	0	19	19.00	19	
		Total Hardness	-	2	1	0	34	34.00	34	
		Iron	-	2	1	0	0.544	0.54	0.544	
		Manganese	-	2	1	0	0.048	0.05	0.048	
		Total Dissolved Solids	-	2	1	0	120	120.00	120	
		E coli	<1	2	2	0	0	0.00	0	
	SP 1 – Desalination	Heterotrophic Plate Count	-	2	1	0	10	10.00	10	
	SP 2 - Old School	E coli	<1	2	3	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	2	0	10	10.00	10	
	SP 3 – Dongas	E coli	<1	2	3	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	2	0	10	10.00	10	
	SP 4 – Cemetery	E coli	<1	2	4	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	3	0	10	10.00	10	
SP 5 - Area 3 Annie Salee House		THMs	< 0.25 mg/L (h)	2	2	2	40	69.00	98	Indicates high level of organics, chlorate reading also high at this sample point. Chlorate response procedure enacted.
		Chlorate	< 0.8 mg/L (h)	2	3	2	0.203	0.71	1.28	Indicates high level of organics, THM reading also high at this sample point. Chlorate response procedure enacted
		E coli	<1	2	3	0	0	0.00	0	
		Heterotrophic Plate Count	-	2	2	0	10	10.00	10	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
SP 6 - Reservoir Analyser		Conductivity	<1500µS/cm (CL)	2	3	0	420	513.33	600	
		E coli	<1	2	1	0	0	0.00	0	
		pH	6.5-8.5	2	2	2	6.3	6.30	6.3	Not reported to regulator since ADWG value is for aesthetics (pH >11 considered extreme and may affect health). Further investigation will be carried out into the low readings, and corrective actions undertaken if required; refer RMIP WS-49
		Turbidity	<5 NTU (a) (CL)	2	3	0	0.1	0.20	0.3	
		Heterotrophic Plate Count	-	2	1	0	10	10.00	10	
		Fluoride	<1.5 mg/L (h)	2	3	0	0.03	0.03	0.03	
		Sulphate	<250 mg/L (a)	2	3	0	1.7	1.73	1.8	
		Chloride	<250mg/L (a)	2	3	0	120	146.67	170	
		Colour	15 HU (a)	2	3	0	1	1.00	1	
		Total Alkalinity	-	2	3	0	2.7	3.07	3.3	
		Silicon	-	2	3	0	0.13	0.18	0.2	
		Calcium	-	2	3	0	0.54	0.72	0.83	
		Magnesium	-	2	3	0	0.79	0.83	0.86	
		Potassium	-	2	3	0	2.9	3.57	4.3	
		Sodium	<180 mg/L (a)	2	3	0	69	87.33	100	
		Total Hardness	60 - 200 mg/L (a)	2	3	3	4.6	5.20	5.5	Recorded results were below ADWG guideline for aesthetics. Not reported to regulator since aesthetic quality. Existing RMIP item to investigate hardness, as this is an issue across all sites.

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
Raw Water (Lagoon)		Iron	< 0.3 mg/L (a)	2	3	0	0.05	0.05	0.05	
		Manganese	<0.5 mg/L (h)	2	3	0	0.001	0.00	0.01	
		Total Dissolved Solids	<600 mg/L (a)	2	3	0	190	243.33	290	
		THMs	< 0.25 mg/L (h)	2	2	2	16	29.50	43	Indicates high level of organics, chlorate reading also high at this sample point. Chlorate response procedure enacted.
		Chlorate	< 0.8 mg/L (h)	2	3	2	0.209	0.59	0.859	Indicates high level of organics, THM reading also high at this sample point. Chlorate response procedure enacted
		Conductivity	-	2	3	0	410	503.33	590	
		E coli	-	2	2	0	5	14.00	23	
		pH	-	2	2	0	6	6.20	6.4	
		Turbidity	-	2	3	0	0.1	0.20	0.3	
		Fluoride	-	2	2	0	0.03	0.03	0.03	
		Sulphate	-	2	2	0	1.7	1.75	1.8	
		Chloride	-	2	2	0	120	135.00	150	
		Colour	-	2	3	0	1.2	1.37	1.5	
		Total Alkalinity	-	2	2	0	2.3	2.50	2.7	
		Silicon	-	2	2	0	0.12	0.16	0.2	
		Calcium	-	2	2	0	0.54	0.66	0.78	
		Magnesium	-	2	2	0	0.78	0.82	0.86	
		Potassium	-	2	2	0	2.9	3.20	3.5	
		Sodium	-	2	2	0	66	77.50	89	

Scheme	Sample Point	Parameter	Operational Criteria / ADWG health guideline value	No. Samples Required	No. Samples	No. Non-compliant samples	Minimum	Average	Maximum	Comments
		Total Hardness	-	2	2	0	4.6	5.05	5.5	
		Iron	-	2	2	0	0.05	0.05	0.05	
		Manganese	-	2	2	0	0.001	0.00	0.002	
		Total Dissolved Solids	-	2	2	0	190	215.00	240	

Appendix D - Water Quality – E. coli Compliance

01 - Boigu		Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25
No. of samples collected		9	5	5	5	5	0	5	5	0	0	0	0
No. of samples collected in which E. coli is detected (i.e. a failure)		0	0	0	0	0	0	0	0	0	0	0	0
No. of samples collected in previous 12 month period		65	65	65	65	65	60	60	55	52	49	44	39
No. of failures for previous 12 month period		1	0	0	0	0	0	0	0	0	0	0	0
% of samples that comply		98.5%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Compliance with 98% annual value		YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
02 - Dauan		Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25
No. of samples collected		6	5	5	5	10	0	0	11	0	5	5	5
No. of samples collected in which E. coli is detected (i.e. a failure)		0	0	0	0	0	0	0	0	0	0	0	0
No. of samples collected in previous 12 month period		64	64	64	64	69	64	59	62	57	57	57	57
No. of failures for previous 12 month period		0	0	0	0	0	0	0	0	0	0	0	0
% of samples that comply		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Compliance with 98% annual value		YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
03 - Saibai		Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25
No. of samples collected		10	5	10	5	5	0	4	5	10	0	0	0
No. of samples collected in which E. coli is detected (i.e. a failure)		0	0	0	0	0	0	0	0	1	0	0	0
No. of samples collected in previous 12 month period		51	51	56	56	61	56	55	54	64	59	54	54
No. of failures for previous 12 month period		0	0	0	0	0	0	0	0	1	1	1	1
% of samples that comply		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	98.4%	98.3%	98.1%	98.1%
Compliance with 98% annual value		YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

04 - Mabuiag		Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25
No. of samples collected		12	5	11	0	10	0	10	5	5	5	5	5
No. of samples collected in which E. coli is detected (i.e. a failure)		0	0	0	0	0	0	0	0	0	0	0	0
No. of samples collected in previous 12 month period		82	82	83	78	83	78	83	83	83	83	83	73
No. of failures for previous 12 month period		5	5	5	5	5	5	5	5	0	0	0	0
% of samples that comply		93.9%	93.9%	94.0%	93.6%	94.0%	93.6%	94.0%	94.0%	100.0%	100.0%	100.0%	100.0%
Compliance with 98% annual value		NO	NO	NO	NO	NO	NO	NO	NO	YES	YES	YES	YES

05 - Badu		Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25
No. of samples collected		5	11	10	5	0	0	10	0	27	5	11	15
No. of samples collected in which E. coli is detected (i.e. a failure)		0	0	0	0	0	0	0	0	0	0	0	0
No. of samples collected in previous 12 month period		64	66	71	71	66	61	66	56	83	83	89	99
No. of failures for previous 12 month period		3	3	3	3	3	3	3	3	3	3	1	0
% of samples that comply		95.3%	95.5%	95.8%	95.8%	95.5%	95.1%	95.5%	94.6%	96.4%	96.4%	98.9%	100.0%
Compliance with 98% annual value		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES

06 - Kubin		Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25
No. of samples collected		0	11	5	0	0	0	5	0	0	0	5	15
No. of samples collected in which E. coli is detected (i.e. a failure)		0	0	0	0	0	0	0	0	0	0	0	0
No. of samples collected in previous 12 month period		15	26	31	31	31	31	31	31	31	31	31	41
No. of failures for previous 12 month period		0	0	0	0	0	0	0	0	0	0	0	0
% of samples that comply		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Compliance with 98% annual value		YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

07 - St Pauls		Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25
No. of samples collected		6	5	5	0	0	10	0	5	0	5	5	15
No. of samples collected in which E. coli is detected (i.e. a failure)		0	0	0	0	0	0	0	0	0	0	0	0
No. of samples collected in previous 12 month period		25	30	35	35	35	45	40	41	41	46	51	56
No. of failures for previous 12 month period		0	0	0	0	0	0	0	0	0	0	0	0
% of samples that comply		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Compliance with 98% annual value		YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

08 - Hammond		Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25
No. of samples collected		6	2	5	5	10	5	10	10	10	10	5	5
No. of samples collected in which E. coli is detected (i.e. a failure)		0	0	0	0	0	0	0	0	0	0	0	0
No. of samples collected in previous 12 month period		61	63	64	64	69	69	74	79	83	87	83	83
No. of failures for previous 12 month period		2	2	1	1	1	1	1	1	0	0	0	0
% of samples that comply		96.7%	96.8%	98.4%	98.4%	98.6%	98.6%	98.6%	98.7%	100.0%	100.0%	100.0%	100.0%
Compliance with 98% annual value		NO	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

09 - Iama		Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25
No. of samples collected		0	10	5	0	5	5	5	5	0	5	5	6
No. of samples collected in which E. coli is detected (i.e. a failure)		0	0	0	0	0	0	0	0	0	0	0	0
No. of samples collected in previous 12 month period		60	65	65	55	55	55	55	55	50	50	50	51
No. of failures for previous 12 month period		1	1	1	1	1	1	1	1	1	0	0	0
% of samples that comply		98.3%	98.5%	98.5%	98.2%	98.2%	98.2%	98.2%	98.2%	98.0%	100.0%	100.0%	100.0%
Compliance with 98% annual value		YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

10 - Warraber		Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25
No. of samples collected		0	10	6	5	5	5	0	6	10	0	10	5
No. of samples collected in which E. coli is detected (i.e. a failure)		0	0	1	0	0	0	0	0	0	0	0	0
No. of samples collected in previous 12 month period		45	50	51	51	56	61	56	52	57	57	62	62
No. of failures for previous 12 month period		1	1	2	2	2	2	2	1	1	1	1	1
% of samples that comply		97.8%	98.0%	96.1%	96.1%	96.4%	96.7%	96.4%	98.1%	98.2%	98.2%	98.4%	98.4%
Compliance with 98% annual value		NO	YES	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES

11 - Poruma		Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25
No. of samples collected		0	6	5	3	0	3	6	3	0	0	3	0
No. of samples collected in which E. coli is detected (i.e. a failure)		0	1	0	0	0	0	0	0	0	0	0	0
No. of samples collected in previous 12 month period		16	19	24	24	24	27	30	29	29	29	32	29
No. of failures for previous 12 month period		0	1	1	1	1	1	1	1	1	1	1	1
% of samples that comply		100.0%	94.7%	95.8%	95.8%	95.8%	96.3%	96.7%	96.6%	96.6%	96.6%	96.9%	96.6%
Compliance with 98% annual value		YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

12 - Masig		Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25
No. of samples collected		6	5	5	5	5	5	5	5	5	5	10	0
No. of samples collected in which E. coli is detected (i.e. a failure)		0	0	0	0	0	0	0	0	0	0	0	0
No. of samples collected in previous 12 month period		61	61	61	61	61	61	61	61	61	61	66	61
No. of failures for previous 12 month period		0	0	0	0	0	0	0	0	0	0	0	0
% of samples that comply		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Compliance with 98% annual value		YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

13 - Ugar		Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25
No. of samples collected		5	2	0	10	0	5	0	5	0	0	0	5
No. of samples collected in which E. coli is detected (i.e. a failure)		0	0	0	0	0	0	0	0	0	0	0	0
No. of samples collected in previous 12 month period		20	17	17	27	27	32	32	37	37	37	27	32
No. of failures for previous 12 month period		1	1	1	1	1	1	1	1	1	1	0	0
% of samples that comply		95.0%	94.1%	94.1%	96.3%	96.3%	96.9%	96.9%	97.3%	97.3%	97.3%	100.0%	100.0%
Compliance with 98% annual value		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES

14 - Erub		Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25
No. of samples collected		6	5	5	5	5	5	10	0	5	0	0	0
No. of samples collected in which E. coli is detected (i.e. a failure)		0	0	0	0	0	0	1	0	0	0	0	0
No. of samples collected in previous 12 month period		14	19	24	29	29	34	41	41	46	46	46	46
No. of failures for previous 12 month period		0	0	0	0	0	0	1	1	1	1	1	1
% of samples that comply		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	97.6%	97.6%	97.8%	97.8%	97.8%	97.8%
Compliance with 98% annual value		YES	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO

15 - Mer		Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25
No. of samples collected		6	5	5	5	5	5	5	0	10	0	5	5
No. of samples collected in which E. coli is detected (i.e. a failure)		0	0	0	0	0	0	0	0	0	0	0	0
No. of samples collected in previous 12 month period		56	61	61	66	66	71	71	61	66	56	56	56
No. of failures for previous 12 month period		0	0	0	0	0	0	0	0	0	0	0	0
% of samples that comply		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Compliance with 98% annual value		YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES



Appendix E - Incidents and Complaints Register

Incident ID	Incident Number	Island	Incident/ Complaint	Date of Incident	Description of Incident	BWA Start Date	BWA End Date	Incident Resolved Date	Resolution Actions
I-48	-	07 - St Pauls	Water Restriction	28/11/2024	Impose Level 4 Water Restrictions			16/01/2024	Community notice issued
I-66	-	03 - Saibai	Complaint	26/08/2024	Cloudy water			25/02/2025	Complaint, not incident. no formal closing process.
I-69	DWI-500-24-11236	03 - Saibai	Incident	31/08/2024	Low chlorine residuals	31/08/2024	29/11/2024	29/11/2024	
I-70	DWI-500-24-11237	11 - Poruma	Incident	2/09/2024	E Coli detection at reservoir sample point from 6- monthly testing	2/09/2024	2/10/2024	2/10/2024	.
I-71	-	06 - Kubin	Complaint	30/10/2024	lack of water during works			25/02/2025	closing out due to age of complaint
I-72	DWI-500-24-11505	02 - Dauan	Incident	25/11/2024	Low chlorine residual in reservoir	25/11/2024	28/02/2025	3/03/2025	Chlorine residual now stable, boiled water to be lifted once E.coli testing completed.
I-74	DWI-500-24-11500	06 - Kubin	Incident	21/11/2024	Level 4 Water Restrictions			6/03/2025	lagoon is now at >90%
I-75	DWI-500-24-11568	07 - St Pauls	Incident	10/12/2024	Low Chlorine Residual	10/12/2024			
I-78	DWI-500-24-11675	11 - Poruma	Incident	20/12/2024	No chlorine residual	20/12/2024	17/01/2025	17/01/2025	
I-79	DWI-500-25-11813	01 - Boigu	Incident	29/01/2025	Chlorate exceedance				Chlorate incident response plan
I-80	DWI-500-25-11812	06 - Kubin	Incident	29/01/2025	Chlorate exceedance				Chlorate incident response plan
I-81	DWI-500-25-11814	04 - Mabuia	Incident	3/02/2025	Chlorate exceedance				Chlorate incident response plan
I-82	DWI-500-25-11771	12 - Masig	Incident	21/01/2025	Chlorate exceedance				Chlorate incident response plan
I-83	DWI-500-25-11811	15 - Mer	Incident	3/02/2025	Chlorate exceedance			26/02/2025	Chlorate incident response plan
I-84	DWI-500-25-11767	14 - Erub	Incident	21/01/2025	Erub low chlorine at Reservoir and one sample point			25/02/2025	BWA lifted once treatment confirmed
I-85	DWI-500-25-11774	14 - Erub	Incident	23/01/2025	E. coli detection			25/02/2025	BWA lifted once treatment confirmed

Incident ID	Incident Number	Island	Incident/ Complaint	Date of Incident	Description of Incident	BWA Start Date	BWA End Date	Incident Resolved Date	Resolution Actions
I-86	-	02 - Dauan	Incident	31/01/2025	Missed 6-monthly Water Samples			3/03/2025	To arrange samples
I-87	-	07 - St Pauls	Incident	31/01/2025	Missed 6 monthly water samples				To arrange samples
I-96	DWI-500-25-11757	04 - Mabuia	Incident	19/01/2025	Low chlorine residual in reservoir and reticulation	19/01/2025	14/04/2025	14/04/2025	get SCADA back up and running for plant then organise E.coli sampling
I-97	-	13 - Ugar	Incident	31/01/2025	Ugar DW sample missed			3/03/2025	Arrange resample
I-98	DWI-500-25-11853	08 - Hammond	Incident	16/02/2025	Low chlorine breach has been caused because of a chlorine shortage at the Torres Shire Council water treatment plant due to supply chain issues on the mainland caused by recent flooding.			25/02/2025	Follow up sampling including turbidity and conductivity sampling taken 17.02.2025.
I-99	DWI-500-25-11857	10 - Warraber	Incident	17/02/2025	Warraber chlorate exceedances received from CRC Laboratory Services on the 17.02.2025	17/02/2025	20/03/2025	20/03/2025	Chlorate incident response plan enacted:
I-100	DWI-500-25-11876	06 - Kubin	Incident	26/02/2025	Low Chlorine and faulty analyser. on 27.02.25 a BWA was imposed.	26/02/2025	01/04/2025	01/04/2025	Contractor to repair analyser and other defects asap. Daily readings with the handheld device
I-101	DWI-500-25-11876	06 - Kubin	Incident	26/02/2025	No chlorine in Reservoir	26/02/2025	01/04/2025	01/04/2025	Chlorate incident response plan
I-103	DWI-500-25-11933	13 - Ugar	Incident	12/03/2025	High Chlorate			19/03/2025	Team onsite to repair broken pipe.
I-104	C-CPLRC-100837271	14 - Erub	Incident	17/03/2025	sewer mains break				
I-105	DWI-500-25-11956	03 - Saibai	Water Restriction	24/03/2025	Disruption of service (level 3 restrictions)				
I-106	-	06 - Kubin	Complaint	24/03/2025	119 New Yabu Street, Kubin has had no water supply since Thursday last week.				Investigation by EO found broken copper service line. Plumber fixed 24/03/25.
I-107	-	03 - Saibai		9/04/2025	Disruption of service (level 4 restrictions)				

Incident ID	Incident Number	Island	Incident/ Complaint	Date of Incident	Description of Incident	BWA Start Date	BWA End Date	Incident Resolved Date	Resolution Actions
I-108	-	05 - Badu	Incident	28/02/2025	Missed E. coli verification water samples for FEB 25.				
I-109	-	06 - Kubin	Incident	28/02/2025	Missed E. coli verification water samples for FEB 25.				
I-110	DWI-500-25-11933	13 - Ugar	Incident	28/02/2025	Missed E. coli verification water samples for FEB 25.				
I-111	-	15 - Mer	Incident	28/02/2025	Missed E. coli verification water samples for FEB 25.				
I-112	-	01 - Boigu	Incident	17/04/2025	Boigu missed E.coli verification water samples for Mar 25.				
I-113	-	02 - Dauan	Incident	17/04/2025	Dauan missed E.coli verification water samples for Mar 25.				
I-114	-	06 - Kubin	Incident	17/04/2025	Kubin missed E.coli verification water samples for Mar 25.				
I-115	-	07 - St Pauls	Incident	17/04/2025	St Paul's missed E.coli verification water samples for Mar 25.				
I-116	-	09 - lama	Incident	17/04/2025	lama missed E.coli verification water samples for Mar 25.				
I-117	-	11 - Poruma	Incident	17/04/2025	Poruma missed E.coli verification water samples for Mar 25.				
I-118	DWI-500-25-12023	07 - St Pauls	Incident	17/04/2025	Chlorate exceedance				Chlorate incident response plan
I-119	DWI-500-25-12029	15 - Mer	Incident	24/04/2025	Power outage caused treatment plant to fail	24/04/2025	06/06/2025	12/05/2025	BWA issued while untreated water was supplied to the community, once plant was reinstated, BWA lifted.

Incident ID	Incident Number	Island	Incident/ Complaint	Date of Incident	Description of Incident	BWA Start Date	BWA End Date	Incident Resolved Date	Resolution Actions
I-120	DWI-500-25-12026	05 - Badu	Incident	23/04/2025	Power fault at water treatment plant has rendered the UF plant inoperable. This has resulted in an inability to treat water and then supply water to community.			25/04/2025	Replacement parts and technician have been arranged to get to site ASAP to conduct repairs, onsite on 25/04/2025.
I-122	DWI-500-25-11857	10 - Warraber	Incident	18/06/2025	High Chlorate				Chlorate incident response plan enacted
I-123	DWI-500-25-12127	05 - Badu	Incident	23/06/2025	High Chlorate and THM				
I-124	DWI-500-25-12142	01 - Boigu	Incident	30/06/2025	Boigu Media filter failure	30/06/2025	11/09/2025	11/09/2025	A Boiled Water Notice issued, temp bag filtration to be installed.
I-134	DWI-500-24-11514	09 - Iama	Incident	25/11/24	- Since 5 August, Iama has been under Level 3 water restrictions limiting water supply to daytime only between 7:00am-7:00pm. Supply is turned off each night				
I-135	DWI-500-24-11163	06 - Kubin	Incident	09/08/24	09/08/2024 - Refer to DWI-500-24-11160 for all incident notes. [Matt F]				
I-136	DWI-500-24-11454	06 - Kubin	Incident	04/11/24	Council advised scheduled E. coli testing did not occur due to regular operator on leave during scheduled period of testing.				
I-137	DWI-500-24-11500	06 - Kubin	Incident	21/11/24	- The covered lagoon storage at Kubin is down to 5% level, and the current source for the scheme is the mobile desalination plant - The mobile desalination plant being utilised was not keeping up with demand and				

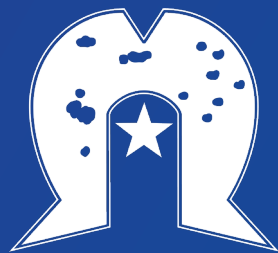
Incident ID	Incident Number	Island	Incident/ Complaint	Date of Incident	Description of Incident	BWA Start Date	BWA End Date	Incident Resolved Date	Resolution Actions
					Level 4 Water Restrictions were implemented in mid-October (this was not notified to the regulator)				
I-138	DWI-500-24-11522	05 - Badu	Water Restriction	26/11/24	- Badu Island has been put on level 3 water restrictions limiting water supply to daytime only between 6am-9pm. - Supply is turned off each night				
I-139	DWI-500-25-12128	05 - Badu	Incident	23/06/25	Chlorate in the samples from Badu airport and reservoir were 2.44mg/L and 2.71mg/L respectively, exceeding the interim health limit of 0.8mg/L. Contributing factors thought to be age and storage conditions of hypochlorite solution and higher-than-normal chlorine dosing due to a fault with the SCADA configuration.				
I-140	DWI-500-24-11456	04 - Mabuia	Incident	05/11/24	Council advised scheduled E. coli testing did not occur due to regular operator on leave during scheduled period of testing.				



Appendix F - Summary of DWQMP Amendments Resulting from Internal Review

DWQMP Section	Description of change
3.1 Risk Assessment Team	Updated risk assessment team in Appendix K.1
3.2 Risk Assessment Methodology	Updated risk level table
4.4 Drought Management Plan	Minor wording edits
4.5 Maintenance Management Plan	Minor wording edits
4.6 Defects and Issues Management Plan	Minor wording edits
4.7 Incidents and Complaints Management Plan	Minor wording edits
4.8 Communications Management Plan	Minor wording edits
4.9 Training Management Plan	Minor wording edits
4.10 Information Management Plan	Minor wording edits
4.12 Disinfection By-products	New section
4.13 Microbial risks	New section
List of Appendices	
Appendix A – Infrastructure Details	
A.1.1-A1.6	Refer yellow highlighted cells
A.1.1	unchanged
A.1.3	Removed rows for 2 x 70kL mobile RO units as they are now permanently installed (at Ugar and Mer). Added bag filters to Boigu
A.1.4	Amended Badu row, see highlighted cells
A.1.4.2	Updated Chlorine Contact Time calculations per WaterVal
A.1.6	Removed rows for unused reservoirs: Dauan Eastern and Kubin old
A.1.7	Added Media Filtration to Boigu
A.2	Added in all new screen shots of GeoSCADA and TSIRC mapping. Added In-house E.coli Testing Laboratory map
A.3	Historical schematics, maps, SCADA screen shots. Citect SCADA added to A.3 - appendix K- WS-25 amended accordingly
Appendix B – Water Quality Management Plan	
B.1	Removed redundant sample point at Erub at Erub Added long & lat data for Masig and Mer
B.2	Removed Sewer Sample Test Matrix; Added sample SWIM local operations entry
B.3	Removed Sewer Licence Parameters; moved old B.5 to B.3 Amended the approved meters to include Hach2100Q turbidity meter.
B.4	Removed logsheet examples; moved old B.6 to B.4

B.5	Moved old B.7 to B.5 (note, this was referred to under the heading Appendix B, however was left off the final PDF)
B.6	Moved B.6 to B.4 Added Water Quality Complaints summary
Appendix G – Incidents and Complaints Management Plan	Appendix G.4.1 – Alarming and Automated Corrective Actions. CCP - Media Filtration. Critical pressure level increased from 50kPa to 65kPa to align with site operation.
	Appendix G.4.1 – Low Warning Free Chlorine Level changed to $\leq$ 0.5-0.8 mg/L
Appendix H – Communications Management Plan	<i>Changes not tracked</i>
H.1	3 lines added: 1. Queensland Dept of Education 2. Queensland Health - Health Centres 3. TSIRC Building Services
H.4, H.3	Column added for Queensland Education
Appendix J – Information Management Plan	Updated document and procedure register
Appendix K – Hazard Identification and Risk Assessment	Refer yellow highlighted cells and/or red text
Appendix L – Chlorate Management Plan	Added to the DWQMP



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